PART 4

KEEPING YOUR CHILD HEALTHY

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CHOOSING A PAEDIATRICIAN

In days gone by, most children were looked after by the family physician. Even today, some lucky parents have a doctor whom they can rely on for most day-to-day childhood problems.

But most others need to have their children seen regularly by a paediatrician (a child specialist).

Only The Best For Your Child

Ask your family doctor to refer you to a good paediatrician — ideally one located close to your residence. Your obstetrician is another source for reference. A close relative, friend or neighbour may also be able to refer you to a good paediatrician.

Ask other parents who go to the same doctor whether she meets these qualifications:

• She is competent. She spends enough time with parents and children, especially on the first visit.

• She is a good listener.

• She does not ask for unnecessary investigations and does not prescribe too many drugs. She may even decide to try the no-medication option.

• She is available for emergencies or makes alternative arrangements in advance.
CHOOSING A PAEDIATRICIAN

- She is fond of children and treats a child as her own or as a grandchild.
- Children seem comfortable with her.
- She does not seem to be in the profession only for financial gain.
- She is known to ask for or get a second opinion if required.
- She empowers parents to manage day-to-day problems.

Help Your Doctor Help You

Go prepared when you visit the paediatrician. Provide her with the full history of your child’s present illness and complaints. Be ready with the record of her past illnesses and family history, especially if you are consulting the doctor for the first time. If you are likely to forget, write down the details and hand over the same for her perusal. Put the child into loose clothing; this will help the doctor make a proper examination.

As far as possible, go by appointment to meet your paediatrician. If you need to see her the same day, be ready to wait your turn. If your child is too sick to wait, take her to the doctor’s assistant in the hospital to which she is attached. The assistant can then talk to the paediatrician and decide if the child needs hospitalisation.

If this is not practical, request your paediatrician to accommodate you. If your child really needs urgent attention, she will attend to her and request another patient with a prior appointment to wait.

Even if you have a fixed appointment, do not insist on being seen on the dot. It is possible that the previous patient needs extra attention or that the doctor has to accommodate an emergency. You would like your child to receive the same consideration when she is ill.
Be silent while the doctor writes the prescription; it is crucial that she gets it right the first time. Your silence will help her focus and concentrate.

If you have to telephone the doctor for advice, try to call her in her consulting rooms. This will allow her access to your child’s records if she needs them. Before you ring your paediatrician’s number, keep a paper and pencil handy.

Barring an emergency, avoid ringing the doctor at her home. Remember that she also needs time to herself.

**Medication Musts**

Your doctor would ideally like to examine your child before starting any drugs, especially antibiotics. Do not self medicate before talking to your paediatrician. Also, do not repeat a previous prescription without consultation even if the symptoms seem to be the same.

Give medication at the prescribed intervals — if you cannot, tell the doctor so, she may suggest an alternative.

**Your Paediatrician And You**

Treat your paediatrician with respect, but don’t expect miracles from her or that your child will be made well as soon as she sees the doctor.

Also remember that doctors are human. They have their moods, they can get tired and annoyed. Look instead at your paediatrician’s overall performance and be ready to forgive an occasional lapse.
PROPER USE OF MEDICINES

Number Of Drugs For An Illness
While your doctor may be justified in prescribing more than 2 to 3 drugs for a particular illness, it is also possible that your child probably does not need all those medicines.

If the diagnosis is correct, the child may either need no medicine, one specific drug for the specific illness or perhaps another drug for giving symptomatic relief.

Information That Parents Should Provide To The Doctor
You must tell your doctor if your child has a known allergy to any particular drug. If so, it should be written in bold letters on top of her prescription and record. The doctor should also know if the child has G-6-PD deficiency. (See Anaemia in THE A-Z OF CHILDHOOD ILLNESSES.) He may like to avoid certain drugs in such cases.

Syrups, Tablets Or Capsules
If a child can have tablets or capsules, do not give syrups. With a tablet or a capsule, you are sure of a correct dose and can reduce the incidence of dental caries due to sugary syrups. The syrups may also have harmful ingredients like alcohol and colouring agents.
HOME REMEDIES

You can manage some of your child’s common childhood illnesses like diarrhoea and fever yourself. However, consult your doctor if your child’s looks make you anxious or if the symptoms persist.

DIARRHOEA

Diarrhoea is Nature’s attempt to rid the system of the offending agent that is responsible for it. Watery diarrhoeas are mostly due to infection by a virus. No antibiotic acts against this virus. In fact, antibiotics can be harmful in such a situation.

However, while diarrhoea helps by ridding the system of the offending agent, it also allows important salts and water to be drained from the body. This can result in dehydration if not managed well.

Severe dehydration can have serious consequences. The passage of a lesser amount of urine is one of the significant symptoms of dehydration and it is more important to count the number of times the child passes urine rather than the number of watery motions.

There is no cause for concern as long as the child passes light-coloured urine frequently. The number of motions is not that important. One child may pass several small motions, but
continue to remain active and pass urine frequently. Another may pass only a few large watery motions, but become listless, stop passing urine or pass very little dark, concentrated urine during the course of 6 to 8 hours. The latter child needs attention.

Do not put a diaper on your infant if she has diarrhoea; this will allow you to watch the colour and frequency of urination. Remember that a watery stool can give the appearance of urine and may mislead you.

Such watery diarrhoeas can take even upto a week to get better. In some children, the diarrhoea gets better within a day. In other children, it may take longer.

Frequent motions in an exclusively breastfed child are normal. At times, these motions are watery, frothy and green, or may contain mucus. This is not diarrhoea and needs no treatment.

**Management**
If your child develops diarrhoea, start the following treatment immediately. Do not wait for the signs of dehydration to develop. Even if the child has developed mild, moderate or severe dehydration, do not panic but start the treatment suggested below. Most cases of dehydration can be managed at home, but if the child looks sickly, listless and passes too little urine, she may need intravenous fluids and hence a doctor must be consulted.

But while you wait for the doctor, start the treatment prescribed below.

- A child with diarrhoea needs food and fluids. Do not starve the child; this results in malnourishment and consequent lowered resistance to fight the disease. It is true that some amount of food given in diarrhoea is lost in the motions, but a moderate amount is absorbed into
the system even in the presence of acute watery diarrhoea. Let the child eat or drink what she likes. Breastfed children should continue breastfeeding, as breast milk supplies the essential nutrients and includes all that is required for rehydration. If the child is older and is having a few breastfeeds and more of other foods and liquids, increase the frequency of breastfeeding. Breast milk also has anti-infective factors that may help fight bacterial as well as viral diarrhoea.

- If your child's appetite is diminished, encourage her to have small frequent drinks of any liquid she may prefer — breast milk, soup, juice, coconut water, dal water, barley water, buttermilk or weak tea, with plain water in between. In general, rice preparations and potatoes are better tolerated in diarrhoea. A khichdi of rice and dal with curds is an excellent combination. Banana is good in diarrhoea.

- Rice cunjee and ‘water, salt and sugar solution’ are the most important ‘medicines’ for the treatment of diarrhoea and dehydration. In watery diarrhoeas, no other medicine is needed. Such liquid preparations prevent dehydration and also help rehydrate the child. Of course, the best rehydration solution for an infant is mother’s milk. If the child has become so weak that she cannot suckle, express the milk by hand and give it with a spoon.

- Rice cunjee is made by cooking a handful of rice powder with water for 10 minutes to make a thin liquid. To this, add one level teaspoon of salt and more water to make it up to 1 litre (5 glasses of 200 ml each). Alternatively, powdered pop rice can be used (without further cooking) with added salt and water.

- Water, salt and sugar solution is made by taking:
  1 litre of boiled and cooled water (one milk bottle = ½ litre)
1 level teaspoon of salt
8 level teaspoons of sugar

In the absence of a proper measuring vessel, 1 litre of water can be measured with the help of a 500 ml milk bottle. Two such bottles provide 1000 ml (1 litre). Otherwise, take a 200 ml glass of water and add a pinch of salt and one teaspoon of sugar to it. To this solution, add fresh lime juice to taste. This will provide the child potassium which is lost along with water and salt. The sugar in this solution helps in the absorption of salt. (Rice also serves the same purpose, since it releases the required sugars once it is digested.) Remember that salt is essential. A solution of water and sugar will not serve the purpose. However, too much salt can be harmful. The best way to safeguard against this risk is to taste the water and salt solution before adding sugar to it. The solution should not taste saltier than tears. Once the above solution is made, keep it in a refrigerator or a cool place. Make a fresh solution if the whole lot is not consumed within 12 hours. Whenever possible, boil the water and cool it before adding salt and sugar. Once the solution is ready, do not boil it. Though boiled and cooled water is preferable, it is not essential. Use the available water. Adding a little lime cordial to water can make it reasonably safe for drinking.

For children less than 2 years, aim at giving \( \frac{1}{4} \) to \( \frac{1}{2} \) cup of the above solution after each watery stool. For older children, offer \( \frac{1}{2} \) to 1 cup after each watery stool. If a child does not
take much at a time or tends to vomit, give 2 to 4 teaspoons every 5 minutes, day and night. The idea is to make sure that the child passes enough light-coloured urine without becoming puffy. A child who has been given too much fluid (which happens very rarely) will develop puffy eyes.

Fortunately, vomiting associated with diarrhoea is mostly a transient phenomenon. If the child vomits, wait for 10 minutes or a little longer and then start offering a few sips or a few spoons of the fluids mentioned earlier every 5 minutes. Do not be in a haste to start giving medicines to check vomiting. These drugs can sometimes have quite annoying side effects. Instead, an older child may be allowed to suck on a little ice. It often helps. Consult a doctor if the vomiting persists.

- Readymade WHO oral rehydration formulas are available in the market to be added to 1 litre of water. There are also some smaller packets to be dissolved in one glass (200 ml) of water. I am against the use of packets that do not follow WHO or governmental recommendations. Most of these packets have too much glucose in them, which is likely to worsen the diarrhoea. So check the packet before you buy it.

The above-mentioned solutions are not meant to stop the diarrhoea. Let Nature take its own course. The above advice is only meant to prevent dehydration. If the loss of fluids due to diarrhoea (with or without vomiting) is more than the intake, the child can show signs of dehydration. At times, the losses can be so great that the child may need administration of fluids by vein. As mentioned before, such a child looks weak, is listless and passes little or no urine. Occasionally, she may develop fast breathing. Such a child should be given urgent medical attention.

**Milk In Diarrhoea**

As mentioned earlier, breastfed children must continue to be breastfed.
It is a well-known fact that artificially-fed children are more prone to diarrhoea. But if a child wants milk, do not hesitate to give it to him.

If the child is not keen, stopping milk for about 12 hours may be preferable. The milk may be diluted for a day or two. But after that, give undiluted milk even if the loose motions continue.

In cases where loose motions continue, some doctors change over from animal milk to soya milk preparations. I do not recommend this because, in acute diarrhoeas, intolerance to animal milk is often a temporary feature. Soya milks are only to be considered in persistent, proven intolerance to animal milk. Sometimes, a pathologist may report the presence of reducing substance in the stool, but do not change the child’s diet without consulting your paediatrician.

**Recovery**

All children lose weight during an episode of diarrhoea. They regain the lost weight soon after recovery. The process of recovery can be hastened by offering an extra meal to a child recovering from diarrhoea.

Drugs in diarrhoea are discussed in the section on Bacillary Dysentery in *Abdominal Pain* in the chapter on THE A-Z OF CHILDHOOD ILLNESSES. For the moment, suffice it to say that drugs often cause more harm than good in the management of diarrhoea. They should only be considered if the diarrhoea is accompanied with blood and/or obvious mucus in the stool.

In conclusion, note carefully that you can handle almost all cases of diarrhoea at home with food and fluids and without the aid of drugs.

**FEVER**

Most cases of fever can be managed at home. It helps to remember that fever is a friend; it helps your child fight
infection. The high temperature helps release substances in our body that attack the disease-causing organisms. Such a defence mechanism either helps cure the disease or limits its spread. To some extent, it may be fair to say that fever is the fire in which the invading germs are likely to get destroyed.

Veterinary doctors tell us that the chance of animals dying from sepsis (severe systemic infection) is twice as great if you bring down their fever.

Wait Three Days...
A 3-day waiting period is recommended before starting medication to allow other symptoms - if any - to develop. On the first day, a doctor is not likely to reach any conclusion as to the cause of fever. If the child develops a thin, watery discharge from her nostrils and starts coughing because this discharge falls down her throat from the back of her nostrils, then a doctor knows that he is dealing with a viral infection in which antibiotics can be harmful. After 3 days of waiting, the child is more likely to develop clinical features that may point to the cause being either viral or bacterial. If it is viral, a doctor would like to observe the child without undertaking any investigation and without giving any antibiotic. If a bacterial cause is suspected, he may either start an antibiotic if required or order some investigations.

Avoiding the use of drugs during these 3 days also allows the body to handle the infective agent by its own defence mechanism. At this stage, even if a doctor feels that antibiotics must be started, the drugs are likely to work better, hand in hand with the body that is all set to take care of the offending agent.

Consult Your Doctor... .
• If the fever persists for more than 3 days.
• If the febrile child (a child having fever) behaves in a manner that is disturbing. For example, if she is not fully
alert, or is looking in one direction and has a fixed gaze, seems persistently listless or irritable, or has vomiting, or has unusually fast breathing, or has the typical features of malaria with alternate days of fever with rigors. If instinct tells you that she is not her normal self and the look of her causes anxiety, do seek professional help. But if she is active, playful and alert, there is no cause for concern.

- If the patient is less than 2 months old. Before contacting the doctor, see if the little one is active and taking her feeds normally. Also check that she has not been overheated from being wrapped up in too much clothing. If the baby is not suckling well, take her to the doctor even if the fever is not very high.

Management Of Fever

- With many fevers, the child’s appetite goes down. Some children may not even like to drink water. This can lead to dehydration. Make sure therefore that the child has enough liquids. Offer it in different forms — plain water, soup, fruit juice, coconut water, etc. While I am against colas and other aerated drinks, allow her to take these if she has been consuming them in the past. The idea is to give enough fluids so that your child continues to pass light-coloured urine.

- If the child demands regular meals, give her these, even if the fever is very high. Some people hesitate to give the so-called ‘cold’ things like bananas to a febrile child. If the child has been taking bananas before and has been enjoying them without showing any signs of allergy to them, I would strongly recommend bananas — whatever the temperature may be. A child may feel weak during the febrile period because of not eating well, but this should be taken care of as soon as the child starts eating. Vitamins, including the B complex group of vitamins or so-called tonics, are not necessary.
High fever makes most children uncomfortable. Don’t try to lower the temperature if the child is okay with it, but make all attempts to keep the child cool if she is irritable, cranky or restless because of high fever. These would involve keeping clothing to a minimum; putting preferably cotton clothes on her; keeping the windows open and using the fan. Switch on the air-conditioner if you have one. Let the child cover herself if she wants to.

At times, a child with high fever has cold feet and hands. This is physiological. No attempt should be made to warm these parts with hot water bottles or any other device.

If you decide to lower the temperature, a quick bath with warm water or sponging of the whole body with water is preferable to the use of drugs. Sponging should not be done with cold water or alcohol. I recommend slightly warm water. However, if the climate is such that your child would prefer tap water or stored water, go ahead and use it. In a case of hyperpyrexia, where the temperature goes above 105°F, or for heat stroke, a cold-water bath or shower is given for rapid cooling.

If you must use a drug to lower the temperature, choose paracetamol (Calpol, Crocin, Metacin, etc) over aspirin; aspirin can cause a serious side effect (Reye’s Syndrome) in children with influenza or chickenpox. This disease results in ‘swelling’ of the brain and damage to the liver. If paracetamol must be used, give it in a proper dose (10-15 mg./kg./dose). Give 4 hourly if required.

If a child is prone to convulsions with the sudden rise of fever, paracetamol may be started with the first sign of fever. As the drug may take time to start acting, sponging should also be started. Unfortunately, in children with fever-associated convulsions (febrile convulsions), the convulsions may appear even before anyone notices that the child has fever. Usually, these convulsions last for a
short duration. Most children get just one convulsion and this does not recur even if the fever remains high during the subsequent period.

**Recording Temperatures**

Some children as well as adults normally have a warm head or warm palms. They are otherwise normal and the thermometer does not record a temperature of more than 98.4°F (37°C). In other cases, normal temperature in a child who is otherwise fit can range from 96°F to 100.8°F.

Temperature can be recorded in the mouth or the armpit or in the rectum (with a special rectal thermometer). If you are reporting to your doctor, tell him how you have recorded the temperature - whether in the mouth, armpit or rectum. Do not try to guess the temperature yourself by adding or subtracting in case you have not recorded the temperature in the mouth.

The new strip thermometers (to be placed on the forehead) often give false readings and are not recommended. The digital thermometers are satisfactory.

By the time your child goes to school, train her to accept the thermometer in the mouth to record temperature. The thermometer is placed below the tongue. The child keeps it in place with her lips and holds it with her hands. In the beginning, an adult can hold the thermometer in his/her hand while the child is learning to keep it in place under her tongue.

If use of a thermometer is not possible, use the back of your (the baby’s caretaker’s) hand to screen for a significant fever. If the skin is cool, record zero; if warm, note a + for low fever, ++ for high and +++ for very high fever. I recommend this method to most of my patients.
A FIRST AID KIT

The Kit Should Include

- A pair of scissors
- A pair of tweezers
- A bottle of some antiseptic solution (like Dettol or Savlon)
- Band-aids
- Bandages (1-2 inch wide)
- Cotton wool
- Packets of sterile gauze
- Paracetamol (Calpol, Crocin, Metacin, etc.)
- A rubber tube
- Elastic bandage
- Leucoplast
- A hand towel
- Rubber syringe (to be used as a nose cleaner)
- Thermometer
- Petroleum jelly
- Disposable syringe (5ml) and needle
- Phone numbers of the hospital, doctor and a close relative or a friend
ABDOMINAL PAIN

If your child has pain in the abdomen, but otherwise looks well, you can be almost sure that the problem is not serious. See the doctor if you have cause to be anxious.

CAUSES: Below are given some of the important causes of abdominal pain in children.

• Psychological Factors
• Medical Causes
• Surgical Conditions

Psychological Factors

SYMPTOMS: School going children often complain of recurrent pain, usually located around the navel. In most cases, the pain is not severe and the child does not complain about it if he is involved in doing something interesting. It rarely wakes him up from his sleep. He is perfectly all right in between the attacks, which may last for a few moments or longer, but rarely for more than half an hour. There may be a family history of similar pain in other children or in the parent(s). Usually, these children are quite intelligent.

CAUSES: Consider if there is any reason for the child to become emotionally upset. Is he being bullied in school? Is he afraid of his new teacher? Are the examinations causing
much anxiety? Is he upset because of a quarrel between his parents?

MANAGEMENT: It is not always easy to probe the mind of a child. If the symptoms persist, take the advice of a doctor, who may even refer him to a family counsellor, psychologist or a psychiatrist. Don’t upset the child by remarks like, ‘You are just acting’ or ‘Do not try to fool us’. I believe that such children do get pain, but the symptom is probably due to some, not yet fully understood mechanism or is related more to the mind rather than the body - possibly a subconscious way of attracting the parents’ attention for more body contact. Hence, the treatment lies in understanding the child, helping him with his underlying emotional problem, if any, rather than being harsh towards him.

Medical Causes

Worms

Infection is caused by ingestion of the mature eggs of common worms — *Ascaris lumbricoides* (commonly called roundworm), threadworms, trichuris trichiura (whipworms) and tapeworms — or the penetration of the larvae of the hookworm into the child’s skin. It is a misconception that consuming an excess of sugary foods causes worms; but it is important to restrict the intake of such foods as a matter of fact.

*Ascariasis* (infection with round worms) The round worms measure from 15 to 35 cms in length and are 3 to 4 mms in diameter. They are either passed out as worms or their eggs are excreted. If a person defecates in the open, the soil also gets contaminated with the eggs. A child may touch the infected soil and the infection may travel from the hand to the mouth. Alternatively, food can become infected by the excreta or by flies.

SYMPTOMS: Most children with ascariasis do not have any complaints. Sometimes, it may cause pain in the
abdomen, distension of the abdomen and even intestinal obstruction, resulting in absence of stools and persistent vomiting. Grinding the teeth while sleeping (Bruxism) is not due to worms.

PREVENTION: Washing one’s hands thoroughly with soap and water before a meal should be a ritual even if the child uses a spoon, knife and fork for eating. Also, teach your child to wash his hands thoroughly after going to the toilet.

Mebendazole or albendazole is used for the treatment of ascariasis.

Threadworms are quite common and usually are more of a nuisance than a serious problem. Only rarely, when they block the appendix, do they cause abdominal pain.

SYMPTOMS: Generally, children may not sleep well due to itching around the anus. This happens because the threadlike, female worms, measuring about 1 cm, come out of the intestine at night and lay eggs on the skin around the anus. The eggs are carried by the child or an adult under the fingernails, or they may spread in the home through clothing or bedding. The patient may ingest these eggs from his own fingernails or may infect others by contamination of food while serving/cooking. These eggs, when swallowed, grow to adulthood.

TREATMENT: It is important to treat all the members of the family, including the house help, with a single dose of 100 mg of mebendazole for children and adults, with a repeat dose after 2 weeks. In certain cases, the treatment may have to be repeated every 3 months.

Hookworms attach themselves to the upper, small intestine and suck blood, resulting in anaemia. Larvae of hookworms emerge from eggs lying in warm damp soil and penetrate the skin of people walking barefoot in farms or gardens. They grow to adulthood inside the body.
Anaemia is treated with iron and the patient is given mebendazole as in ascariasis.

**Whipworm** (Trichuris Trichiura) infection is caused by ingestion of eggs passed in the stool, and spreads with unclean hands and through flies, which, in turn, contaminate water and food. Whipworms rarely cause pain in the abdomen, but they are an important, though not common cause of prolapse of the rectum in children.

**TREATMENT:** Same as for ascariasis.

**Tapeworms** are several metres long and inhabit the intestines. They have several segments, which are passed into the stool as small, flat, white pieces (like seeds of gourd or marrow, Kadu and ghia), about 1 cm long. The infection stems from eating infected pork or beef, which is not cooked properly. Food or water contaminated with the eggs of tapeworms may also cause infection. The disease may, therefore, develop in children who do not eat meat.

**SYMPTOMS:** Tapeworms may not cause much problem except for mild pain in the abdomen. But, in rare cases, they may form cysts in the child’s brain. This condition is called neurocysticercosis and can lead to headaches, fits or even death.

**PREVENTION:** Meat eaters must make sure that it is well cooked. Personal hygiene for all members of the family remains equally important.

**TREATMENT:** The drugs found useful are niclosamide for removal of adult worms, and praziquantel and albendazole for the cysts affecting the brain.

**Bacillary Dysentery**

**SYMPTOMS:** Frequent motions (not necessarily loose) with passage of blood or mucus and accompanied by griping pain
that increases at the time of passing a motion is usually due to bacillary dysentery. At times, the child doesn’t pass any faecal matter, but only blood and/or mucus.

Unlike acute watery diarrhoea, vomiting and significant dehydration are not common features in dysentery, but some children can have frequent watery motions at the onset, sometimes accompanied by vomiting.

Toddlers are prone to the condition during the monsoons. Children who are breastfed into the second year of life are less prone to the disease and even if they fall sick due to dysentery, the severity of the disease is less and they recover faster. The child can get infected from close contact with an infected person or by consuming contaminated water or food.

**TREATMENT:** If facilities exist, a routine stool examination can be undertaken. It would show the presence of mucus, red blood cells and leucocytes. Macrophages may also be present. Treatment consists of adequate hydration (see *Diarrhoea* in the chapter on HOME REMEDIES), food and drugs.

Drugs are required to control the bacterial infection. Some doctors advise anti-motility drugs to reduce the frequency of motions. Such drugs contain loperamide and diphenoxylate that are banned for use by children. Besides prolonging the illness, such drugs can also have serious side effects and must not be given.

**Giardiasis And Amoebiasis**

Giardiasis and amoebiasis may be suspected in children with persistent or recurrent pain in the abdomen. A stool examination of a fresh sample is asked for to confirm the diagnosis.

**TREATMENT:** The child is given a full course of metronidazole.
Food Poisoning
Food poisoning should be suspected if all those who have eaten the same food start getting abdominal pain, diarrhoea and vomiting, with or without fever.

PREVENTION: Children should be discouraged from eating milk products outside the home.

Food should be eaten the same day it is cooked. If this is not possible, the leftover items should be rapidly cooled in cold storage or kept in the deep-freeze compartment of the refrigerator, and thoroughly heated before consumption. Make sure that the centre of the food gets heated, leaving no cool spots.

TREATMENT: Same as for Diarrhoea in the chapter on HOME REMEDIES.

Sore Throat And Vomiting
SYMPTOMS: Sore throat with enlargement of glands in the abdomen can cause abdominal pain in children above 2 years of age. The pain disappears as the sore throat gets treated.

Severe bouts of cough or vomiting leading to soreness of the abdominal muscles may also present as abdominal pain. The remedy lies in treating the cause of sore throat, cough or vomiting.

Tuberculosis Of The Abdomen
Tuberculosis of the abdomen should be considered if the child who complains of pain in the abdomen has associated features connected with a possible diagnosis of tuberculosis. These features include: A history of close contact with an adult having tuberculosis; loss of appetite and weight; distension of the abdomen with or without evidence of intestinal obstruction; and evidence of tuberculosis elsewhere in the body. For treatment, see section on Tuberculosis.
Constipation
This is a common cause of abdominal pain in children. The child does not look ill, nor run fever, but gets intermittent colicky pain in the stomach. There is no vomiting and the appetite is usually not affected. The child may have moved his bowels, but it may have been an incomplete evacuation. For treatment, see section on Constipation.

Surgical Conditions
Appendicitis
Appendicitis refers to inflammation of the appendix — a tail-like structure connected to the caecum portion of the large intestine located in the right lower abdomen. If not detected early, an inflamed appendix may burst open, leading to a serious condition called peritonitis.

SYMPTOMS: This condition should be suspected in the presence of persistent pain in the abdomen, often (though not always) associated with loss of appetite, vomiting and fever. The pain mostly begins around the centre of the abdomen (near the navel) and, after a few hours, gets localised to the right lower abdomen. The child who is otherwise active becomes quieter, resists examination of this part of the abdomen and gets even more pain when his abdomen is pressed gently over this region. Unattended peritonitis makes the abdomen feel hard like a board, and the pain and tenderness (pain when touched) becomes worse.

TREATMENT: A child with a possible diagnosis of appendicitis needs the immediate attention of a surgeon — preferably a paediatric surgeon.

Intestinal Obstruction
Intestinal obstruction is a serious surgical condition. Some of the causes are congenital obstruction (from birth), a
mass of roundworms obstructing the intestines, intussusception and an obstructed inguinal hernia (discussed later in this section).

SYMPTOMS: The child with intestinal obstruction has pain in the abdomen, constipation, distension of the abdomen and projectile vomiting (vomit shooting out of the mouth with great force). It may be green in colour (due to the presence of bile) or may even contain faeces. The child will want to lie quietly in spite of the pain.

TREATMENT: The urgent care of a surgeon is vital.

Intussusception

Intussusception is a condition in which one portion of the intestine slips inside the portion next to it. The condition occurs commonly between the ages of 3 months and 3 years.

SYMPTOMS: There is a sudden onset of pain which lasts for 2 to 3 minutes and then occurs in repeated bouts every quarter hour or so. The child shrieks with pain and looks frighteningly pale. While a child usually becomes red in the face when he cries, in intussusception, the child looks pale, acutely ill, refuses to eat or drink and appears to be collapsing with continuing bouts. At this stage, the child may pass blood in the stool.

TREATMENT: A surgical opinion is urgently needed in such a situation.

Inguinal Hernia

Inguinal hernia with strangulation or obstruction may present itself in an infant who starts crying suddenly and the mother notices a hard swelling in the groin (junction between the abdomen and thigh). No attempt should be made to press on this swelling; show the child to your doctor. If unattended, obstructed inguinal hernia can present with signs of intestinal obstruction (as with Intussusception). If the treatment is unduly delayed,
blood vessels in the swelling get obstructed, causing damage to the surrounding intestines.

SYMPTOMS: Most often, the inguinal hernia is noticed as a swelling in the groin or the scrotum. The swelling becomes more prominent when the child cries. It may disappear on its own or by gentle pressure when it reduces with a gurgling feel. This is not an emergency situation, but as the possibility of strangulation exists, this hernia should be operated upon as soon as possible.

A strangulated hernia is an emergency needing urgent attention.

Some children may have hernia on both sides.

At times, the child has some tender glands in the groin secondary to an infection in the lower limb. This should not be confused with hernia. A hernia should also be differentiated from a congenital hydrocele, which presents with swelling of the scrotum. This swelling does not change in size on crying or with pressure. It usually disappears on its own before the child is 1 year old.

TREATMENT: If the doctor decides that the swelling is hernia, he/she may gently try and reduce it. Failing this, the child may be hospitalised for surgery.

Torsion Of Testes
This results in intense pain in the affected scrotum and swelling and tenderness (pain on touch) of the scrotum. This condition may be mistaken for inflammation of the testis and treated with antibiotics, and so result in loss of the testis.

TREATMENT: It is of prime importance to take a child with scrotal pain and swelling to a paediatric surgeon. If it is torsion, the child must be operated soon to avoid permanent damage to the testis.
Some Other Less Common Surgical Conditions

Other less common surgical conditions with pain in the abdomen, like injury to the abdomen and a stone in the urinary tract may also be kept in mind. The onset of pain with a stone is sudden. The pain is often located in the back and extends towards the groin. A dull ache persists, with outbursts of shooting unbearable pain. This may be associated with passage of blood in the urine.

Other Possible Causes Of Abdominal Pain In Children

- Allergy or intolerance to animal milk
- Colic in small infants
- Dietary indiscretion
- Abdominal epilepsy
- Urinary infection
- Referred pain from the chest in a child with pneumonia or pleural infection
- Hepatitis (infection of liver)
- Malaria
- Hunger with low blood sugar

Infection of the gastrointestinal system with H. Pylori is also being considered as a possible, though not definite cause of abdominal pain. This is treated with metronidazole, amoxycillin and ranitidine.

Choledochal cyst, an uncommon congenital malformation of the tubes draining bile from the liver, presents with attacks of abdominal pain, clay coloured stools and fever. Sonography of the abdomen clinches the diagnosis. Treatment consists of antibiotics to take care of the infection. The symptoms subside after treatment with antibiotics, though surgery is necessary, and as early as possible, as the cyst tends to get repeatedly infected and enlarges in size with the passage of time, making surgery more difficult in the later stages.
Meckel’s diverticulum, an anomalous tubular structure arising from the small intestine, can give rise to abdominal pain when inflamed. It is associated with rectal bleeding. The bleeding is usually dark red or, more rarely, bright red, if excessive and generally profuse. This constitutes a medical emergency. The bleeding may stop while the child receives treatment, and the surgeon may ask for investigations such as an isotope scan to confirm the diagnosis. However, it is not easy to confirm the diagnosis of Meckel’s diverticulum and the surgeon will usually need to operate to excise the diverticulum.

★ ABRASIONS OR SCRATCHES
An abrasion is a minor injury, which needs to be cleaned properly to remove dirt, a possible source of infection. Put the injured part under running tap water or pour water from a glass. Wash your hands and clean the wound with soap and water. No medicine is needed for a clean wound, nor the use of spirit, iodine or red medicine (mercurolchrome).

If the child’s booster dose of DPT (triple antigen) or dual antigen (DT) is due, give it now. If he is about 10, give him an injection of tetanus toxoid. A fully immunised child does not need an extra dose of tetanus toxoid. For instance, if he has been given DPT (which contains tetanus toxoid) at the age of 2 and meets with an accident at 3 years, there is no need to give tetanus toxoid.

Dressing Or No Dressing?
I personally believe that a dressing is not needed. However, if you feel that the wound might not remain clean or that it may attract flies, cover it with a sterile piece of gauze, available from the chemist. Keep it in place with a clean bandage or a clean piece of cloth. Check the wound daily and change the gauze. If the gauze or bandage is stuck to the wound, pour boiled and cooled water to remove it.
If the wound is oozing from the beginning, apply an antibiotic skin ointment on it and then put the gauze over it. If the ointment is not easily available, just sterile gauze will serve the purpose. Once the scab is formed, there is no need to cover the wound.

**ACUTE GLOMERULONEPHRITIS**

Also called acute nephritis, this is a disease of the kidney following bacterial infection of the throat or skin. A typical case usually affects a school going child; it is extremely rare in the preschool period.

**SYMPTOMS:** About 3 weeks after a sore throat or skin infection, you may notice that the child is passing less urine. It is reddish in colour. On getting up in the morning, the child’s face is found to be puffy. The swelling is more marked below the eyes and spreads also to the lower limbs. In some cases, the blood pressure goes up and the child may also get fits. Your doctor will first ask for a urine test and then may order some blood tests.

Fortunately, 95% of children recover completely without any damage to the kidneys. The child looks normal within 2 to 3 weeks when the urine output and colour becomes normal and the swelling disappears. The urine may show the presence of red cells and albumin for a longer period. Keep in touch with your doctor. Most likely, he/she will also reassure you and will not prescribe any further medicine.

**TREATMENT:** Your doctor will advise bed rest and certain restrictions in diet, salt and water intake. He/she will also prescribe medicine for the residual throat or skin infection and for the raised blood pressure, if any. In the first few days, your doctor may like to check the child’s blood pressure twice daily. If the blood pressure is high or the child has convulsions or marked reduction in urine output, he/she may wish to hospitalise the child.
THE A - Z OF CHILDHOOD ILLNESSES

★  ACUTE NEPHRITIS
See Acute Glomerulonephritis.

★  ACUTE WATERY DIARRHOEA
See section in the chapter on HOME REMEDIES (page 226).

★  ADDICTIONS
In India, just like around the world, addiction to alcohol, tobacco chewing, smoking and hard drugs is taking its toll on young people.

Peer pressure and high parental expectations add to the pressure. Not fully realising that alcohol is also a drug, a teenager may use it to relax or escape from stress. With time, the abuse of alcohol can give rise to a feeling of inadequacy, lowered self-esteem, estranged relationships, impaired reasoning and judgement, dependence and gradual personality deterioration. Even beer, which is often thought to be safe to drink, can impair rational thinking and lead to irrational behaviour. It can also be responsible for delayed reaction time, which may increase the risk of automobile accidents. And then, there is always a possibility of graduating from beer to harder stuff.

And while puffing a cigarette may seem less hazardous and life threatening in youth, a single cigarette is said to reduce the lifespan by 5 minutes. Even if we close our eyes to the long-term dangers like cancer and heart disease, what about simple effects like bad breath and staining of teeth? These do not help in becoming popular with friends! Smoking also has an immediate effect on our lungs, resulting in frequent attacks of cough, possible wheezing, poor stamina, and an adverse effect on performance in competitive sports.

The list of risks that result from exposure to smoking (active or passive) includes asthma, middle ear infection, chronic lung disease, sudden infant death syndrome (SIDS),
hearing defects, lower intelligence quotients, increased risk of inflammable bowel disease (with bleeding per rectum), hypertension and bacterial meningitis. Permanent genetic changes that increase the risk of lung cancer occur in teenagers who smoke, even if they quit later in life. Among young smokers, cigarette smoke also contributes to the formation of low-density lipoproteins (LDL) — the so-called ‘bad cholesterol’ — and this to heart disease. Smoking is also linked to low sperm count in males and a 64% increase in miscarriage risk when parents smoke.

Experts from the British National Dental Health Foundation reveal that children as young as 12 years old have been diagnosed with pre-cancerous lesions in the mouth due to the use of gutkha. They warn that if its sale is not restricted, it could lead to a rapid spread of mouth cancer having a high mortality rate.

DIAGNOSIS: Early diagnosis of addiction to drugs is important. It may save the child as well as prevent the breakdown of the family. Counselling by parents or experts can help get rid of the habit if detected early enough.

Do consider the possibility of addiction if you find that your son (or daughter) gets tired easily, has started keeping odd sleeping hours and has a poor appetite, does not care about his/her appearance, gets easily annoyed or depressed, shuns company and keeps getting congestion or redness of the eyes. You may also start getting complaints from his/her school or college. In certain cases, the addiction may even lead to depression and attempted suicide.

But before you start spying on your teenager, keep in mind that most of the above symptoms can also be found in growing children who either have no major problem or have some physical or behavioural problem unrelated to the agents under discussion. Confirmation of addiction should be left to the doctor.
As the addiction grows, withdrawal symptoms can be detected when the addict wakes up. He/she appears restless, his/her eyes and nose water, he/she complains of abdominal cramps and develops diarrhoea, vomiting and mental confusion.

PREVENTION: As parents, you can play an important role in curbing such dangerous trends by helping your children develop self-esteem and character from an early age. Encourage them to communicate freely with you on any subject. Provide them the help to realise their inner potential. Encourage them to take part in extra-curricular activities and sports. Teach them the value of health and the need to preserve it to live life fully.

★ ADENOIDs

They lie behind the roof of our mouth cavity (the palate) where the back of our nostrils joins the back of our throat. Ordinarily, they seem to do their job quietly by keeping in check the germs in our upper respiratory tract. The tonsils act likewise.

At times, however, these adenoids get enlarged and block the breathing passages, causing varying degrees of obstruction of breathing. In most cases, the enlarged adenoids shrink in size as the child grows older. In the past, it was considered routine to remove the adenoids along with the tonsils. But it is now being increasingly recognised that often, both these tissues should be kept intact, and only removed if definite indications for removal exist.

Removal of adenoids thus should only be considered if the child gets recurrent ear infections, has difficulty breathing normally, breathes mostly through the mouth, or snores heavily at night with temporary stoppage of breathing (obstructive sleep apnoea) for a few seconds; his speech is disturbed and his voice sounds nasal, as if his nose is blocked.
Increased gain in weight and height, and improved grades in school after removal of tonsils and/or adenoids in children with obstructive sleep apnoea have been reported.

Even in the above conditions, the removal of adenoids need not necessarily be resorted to. Breathing through the mouth alone is not an adequate indication; some people do so out of habit. At the same time, if the child does not have mouth breathing or nasal speech, the diagnosis of enlarged adenoids is likely to be wrong. Before undertaking surgery, your doctor may also like to treat the child with antibiotics if he/she suspects persistent infection, or he/she may like to treat the child for allergies.

**AIDS**

AIDS stands for Acquired Immune Deficiency Syndrome. It is a disease caused by the Human Immunodeficiency Virus (HIV). Due to this infection, the person acquires a deficiency in his immune system, which normally helps him fight infections. A person with AIDS may thus even fail to fight ordinary infections, and often dies from serious ones.

The disease is spread by:

- Sexual contact with a male or female having the AIDS virus
- Blood transfusions of infected blood
- Sharing needles infected with the blood of an infected individual

Sex with more than one partner and homosexuality increase the risk. Drug users sharing the same needle are at a high risk.

A pregnant mother with AIDS can pass the infection to her baby. Delivery by Caesarean section may reduce the risk.
SYMPTOMS: The disease is suspected in children who fail to grow normally, get frequent diarrhoea and skin infections, persistent white patches in the mouth due to a fungal infection called thrush, have generalised enlargement of the lymph glands, rapid spread of tuberculosis, repeated pneumonias and develop certain types of cancers.

But it is also important to remember that most children who suffer from the above symptoms in our country are more likely to be suffering from common childhood illnesses, malnutrition and tuberculosis rather than AIDS.

It is important to educate yourself and your children and adolescents about AIDS and HIV. After the AIDS virus enters the system of the person, it may take months or years before the symptoms become apparent. Yet this person can spread the disease by donating blood or having sex or sharing needles with another person. By the same count, a person can get AIDS from an individual who may otherwise look completely fit and healthy. Hence, it is important to be careful before developing an intimate relationship with another person. Premarital sex must be avoided. Some potential partners get themselves tested for HIV before getting engaged.

Myths About AIDS
It is also equally important to know that AIDS IS NOT SPREAD by casual contact such as playing, studying, eating, touching, or even living together with an AIDS patient. It also does not pass to another person through food, water, mosquitoes or sharing the same toilet. Do not ostracise an AIDS patient, but take the precaution of wearing rubber gloves if you have to ever handle his blood or soiled clothes. Ask an expert for advice on living with someone with AIDS.

It is not true that using a condom will safeguard you from getting AIDS; the use of a condom for sex with an infected
person significantly reduces, but does not completely eliminate the risk of getting AIDS.

PREVENTION: The best way to prevent AIDS is to prevent HIV. The best way to prevent HIV in children is to prevent HIV infection in men and women.

Have sex only with a faithful married partner, avoid using unsterilised needles (insist that your medical practitioner opens a new needle in front of you, or carry your own sterilised pack with you when you travel), and do not agree to transfusions of blood that has not been tested for HIV. If this testing is not possible in an emergency, only accept blood from a known close friend or a relative. Antiretroviral drugs, taken by the mother before and during delivery, can reduce the risk of HIV being passed on to the child.

HIV is transmitted through breast milk, with about 1 in 7 breastfed infants born to HIV-positive women acquiring HIV in this way (See FEEDING INFANTS, YOUNG CHILDREN AND ADOLESCENTS).

At the community level, we must spread awareness of this disease among young people, work for moral and spiritual regeneration, create such socio-economic conditions that husbands and wives do not have to separate to find work and individuals do not have to sell their bodies for sex.

Schools are an ideal forum for creating awareness about HIV and AIDS. Support your child’s school’s sex education programmes, especially since these will allow your child to gain broad-based, multidimensional and age-appropriate information on responsible sexuality. Also make time to talk to your child about growing up and sexuality.

When infants are born, they have their mother’s antibodies. A baby may have a positive HIV antibody, but not have the virus. Although this does not always happen, the mother’s
antibodies may disappear when the child is approximately 15 months old and leave the baby HIV-negative.

★ ALLERGIES

An allergy is an abnormal/hypersensitive reaction to certain substances termed allergens. These substances are well tolerated by most people, but others may react adversely to these agents. These individuals would be termed allergic to those substances.

CAUSES: Common allergens include foods like eggs, fish, wheat, corn, artificial milk in liquid and powder form, milk products, soya preparations, nuts, peanut butter, chocolates, tomatoes, pork, citrus fruits, and coconut; house dust; certain drugs like penicillin and sulpha; pollen of some flowers; animal hair and feathers. Cockroaches, cats and dogs are dominant sources of indoor allergens.

Children born into families with a history of allergy and those who consume animal milk in the first year of life are more prone to get allergic disorders. Babies exclusively breastfed for the first 6 months of life are less prone to it. Italian naval cadets who had been repeatedly exposed to bacteria that are normally thought of as pretty harmful were found to be less likely to develop allergies. The links between allergies and bacteria are new evidence for the theory that our immune systems have evolved to need the stimulus of fighting bacteria right from the moment of birth.

Common Allergies

Allergies can manifest as
- Asthma
- Eczema
- Hay fever (allergic cold)
- Urticaria (hives)
- Anaphylaxis (severe allergic shock); and
- Diarrhoea
Asthma
SYMPTOMS: In a typical case, a 4-year-old child goes to sleep normally and gets up wheezing in the middle of the night. He has difficulty in taking in air as well as in pushing it out. His breathing is faster than usual. When he breathes in, he has to sometimes take the help of his neck muscles to take the air in. The normal gap between the two clavicles (collarbones) tends to dip during inspiration (breathing in). While breathing out, the child makes a musical hissing sound termed ‘wheezing’. The expiration (breathing out) is more prolonged than usual. The child finds it easier to breathe sitting up or wants a pillow or two on his lap to put his head on for comfort. If the child has had eczema before or has had similar attacks before this episode or has a strong family history of allergy or was artificially fed (not breastfed), the diagnosis is more or less confirmed. It does not mean that a breastfed child cannot get asthma. The point worth noting is that artificially fed children are at a much higher risk.

Thunderstorms can precipitate an attack in those who suffer from seasonal asthma due to an increase in the amount of airborne pollen.

TREATMENT: Show your child to your doctor as soon as possible after the first attack to let him decide if it is indeed asthma. Do not overreact if your child gets an attack of asthma. You may pass your anxiety on to the child and so worsen the attack. Follow your doctor’s advice on handling the situation. Give the prescribed medication by mouth or by inhalation, keep the child comfortably warm without covering him excessively, let there be free flow of air into the room (switch on the air-conditioner, if you have one) and give him enough liquids including water. If he has fever, avoid aspirin and ibuprofen, as they can worsen the attack of asthma. Paracetamol would be better. Avoid giving cough syrups (specially those containing codeine). As long as your child is not in acute distress and is accepting some food and enough
liquids, you can manage him at home. Wheezing by itself should not worry you.

Consult your doctor, however, if his breathing becomes faster, if he has difficulty taking in air and if he is becoming exhausted. Your doctor may advise hospitalisation. This should be done before the child starts fighting for breath or becomes blue.

Even if you normally do not like the use of drugs like corticosteroids and antibiotics, do not hesitate to use these if your doctor prescribes them in this situation. If your child refuses to take oral steroids, a single injection of dexamethasone (1.7 mg/kg) is quite effective.

If your child is prone to frequent attacks, consider buying a nebuliser. This is very handy for use during an acute attack. However, a metered-dose inhaler (used by adults) with an easily-available spacer device and facial mask is considered better than a nebuliser for the treatment of acute wheezing in children less than 2 years old.

You may also like to consult a child psychologist or a family counsellor to see if a slightly older child needs extra emotional support. An older child may be introduced to yoga, but do not force him to practise it if he is not interested or is not yet ready for it.

Skin tests for allergy and desensitisation are also now available. In these, repeated injections with increasing concentration of extracts of the substance to which the child shows an allergic reaction are given. They may be considered if you have tried other measures under expert supervision, and you find that your child cannot carry out his normal activities including schooling and your doctor assures you that there is a competent person who will do these tests and who will undertake the follow-up treatment.
PREVENTION: Besides a familial tendency, passive smoking, allergy to certain foods or the allergens listed above, sudden exertion in the form of unaccustomed exercise or sports, anxiety or unresolved conflict at home or school, abrupt variation in environmental temperature and respiratory infections may precipitate an attack. However, sports should be encouraged. Children who get exercise-induced asthma are given medication for their asthma immediately before the activity. Also, 2 g of ascorbic acid (Vitamin C), given one hour before exercise, has been shown to have protective effects for such children.

House dust mixed with mites in the room in which the child sleeps should be specially taken care of. Keep cockroaches away. The room should be kept scrupulously clean and have minimum furniture in it. Old books, clothes, blankets and musty bedding may trigger the attacks. Sun these frequently. Make sure no dust remains on fans, in corners, behind or underneath the furniture or on curtains. Thin curtains, which can be washed frequently, are better than thick or heavy curtains. Mop the room with a wet cloth rather than dust it. Avoid using wool blankets and carpets in the bedroom.

Also avoid keeping stuffed toys and plants in the room. Since pets can also be a source of allergy (cat hair can linger for 2 years after the animal has left the house), do not have them in your house.

If you have a vacuum cleaner, use it only while the child is away from home.

Let the child avoid all types of talcum powder, strong perfumes, scented soaps, cold drinks, as well as sudden variations of temperature (for instance, entering a very cold air-conditioned room from outside where the temperature was very high), sudden exertion and foods that he is allergic to.
To find out whether a child is allergic to the foods listed above, first introduce an item into his diet when he is perfectly well. Watch for a week. If the child remains well (without medication), he is probably not allergic to that item of food. Avoid offering any suspicious item for 6 months and then try again. If the child reacts severely to any food, do not offer it for at least a year.

Bananas are often blamed for bringing on attacks of cold and asthma. This is probably not true. If the child who is given a banana gets an attack on certain occasions and not on others, he is probably not allergic to it. A banana, especially when given on an empty stomach (at least half an hour to one hour before meals) is a healthy fruit and should not be easily discarded from the child’s diet.

The good news about asthma is that if the attacks start in early childhood, they are more likely to disappear with age. Also, in children without a history of heredity and other factors mentioned above, and in whom the attacks always start with a viral cold rather than coming up suddenly, the diagnosis of asthma should never be made in a hurry. Such children may temporarily react to a cold with a wheeze but may not have asthma. Half the children with definite attacks of asthma are likely to be free of symptoms within 10 to 20 years. However, recurrences are known in adulthood. Also, those who have severe attacks in early childhood are more often found to continue getting attacks in adulthood.

At times, children with asthma may have a persistent cough that worsens at night. These children may not have any attacks of wheezing, but they do benefit from drugs prescribed for asthma.

**Eczema**

SYMPTOMS: If your 2 or 3-month-old baby develops red patches of itchy dry skin on his face, forehead and the back of
the ears, he is probably heading for an allergic skin condition called eczema. Itching makes the rash worse and the skin starts oozing. As the secretions dry up, scaly patches may be noticed. If the broken-down skin becomes infected, pus-like discharge is observed and the child may develop fever.

In older children, eczema presents as itchy, dry skin. The front of the elbows and the back of the knees are more commonly affected.

Eczema is more common in babies given artificial milk. Babies exclusively breastfed for the first 6 months of life are less prone to it. In families with a strong history of allergy, exclusive breastfeeding is therefore advisable for 6 months. An older infant may get this allergy with an egg or wheat preparation.

Another similar condition termed as contact dermatitis may develop because of contact with an irritating substance like woollen clothing, certain soaps or oils, besan (gram flour paste), a bubble bath, disposable diapers or certain plants.

TREATMENT: The treatment of eczema remains more or less symptomatic. The principles are to keep the skin moist, minimise itching and to try to find the possible allergen. Avoid frequent washing of the skin (specially with soap); it is likely to dry it more. Linseed oil may be applied over the itchy patches. Apply an ointment (ung. emulsificans aquosum, B.P.), available from your chemist, instead of soap. Pat the skin dry with a soft towel and do not rub. Avoid applications of besan (gram flour) paste on the skin. Some children may also get a rash from using certain expensive soaps (including baby soap) and oils. Applications of milk cream may also cause rash.

Keep the child’s nails short. Do not use mittens (as hand gloves) at night unless the itching is severe. If you must use them, check inside the mittens that they are smooth and do
not have any loose threads that may get entangled with the child’s fingers.

Your doctor may prescribe an oral antihistamine drug like chlorphenamine. Cold compresses on the rash may be found to be soothing. Soothing ointments containing corticosteroid should be used only in consultation with your doctor, since they are absorbed into the body through the skin and may cause side effects. If applied, they should be used in very small amounts. If the skin gets infected, your doctor may prescribe an antibiotic. In very severe cases, cyclosporine, a potentially toxic drug, has been found to be helpful.

A mother who is breastfeeding may try omitting possible allergens (see the list of foods at the beginning of this section) from her diet.

If you need to be on a prolonged milk-free diet, consider taking some calcium preparation and Vitamin B12. A diet that includes fruits, vegetables and sprouts is essential. (Also see the chapter on PREGNANCY.)

Some babies who are allergic to cow milk may tolerate soya milk better, though some children are also allergic to soya milk.

**Urticaria**

**SYMPTOMS:** This condition manifests as itchy, pink or reddish raised patches of skin that tend to come and go, to reappear on other parts of the body. The size of the patches may vary from 1 millimetre to a few centimetres (giant urticaria). Itching may be severe or mild.

**CAUSES:** Urticaria may follow intake of certain foods like fish, eggs and nuts, or some drugs, or certain infectious agents. Contact with some plants may also be responsible. At times, no obvious cause can be determined.
TREATMENT: Most cases respond to antihistamines. As the patches tend to recur, treatment must be continued for as long as the doctor advises. At times, an injection of adrenaline is given for immediate relief, especially if the patches are also associated with oedema or swelling. If the cause is known, the same should be taken care of.

Anaphylaxis (Severe Allergic Shock)
CAUSES: This is a serious, though rare reaction following injection of certain drugs like penicillin and antitoxins that are made from horse serum for the treatment of tetanus or for poisoning following snake or scorpion bites. Occasionally, the sting of an insect may also cause it. Such a reaction can sometimes also be seen with an oral medication.

SYMPTOMS: The patient with anaphylaxis complains of a constricting sensation in the throat and chest, develops urticaria and has difficulty in swallowing. He may become unconscious and stop breathing.

TREATMENT: This is a serious condition needing immediate medical attention. An injection of adrenaline and mouth-to-mouth breathing with cardiac (heart) massage may be needed.

Hay Fever
CAUSES: This is a seasonal condition related to allergens present in the child’s environment like pollens from trees or grass.

SYMPTOMS: It presents as itching in the nose and palate, and frequent sneezing and watery discharge from the nose, with or without redness of eyes. The attacks only appear in a certain season of the year and respond dramatically, though temporarily, to antihistamines. The child becomes completely free of symptoms once removed from the offending environment.
Similar symptoms are seen all through the year in some children. In such cases, the underlying cause is an allergen at home like house dust or animal hair. This has been discussed under the management of asthma.

TREATMENT: Antihistamines.

**Diarrhoea Due To Allergy To Foods**

CAUSES AND SYMPTOMS: Diarrhoea, with or without abdominal distension, and pain in the abdomen can occur in some children following ingestion of artificial milk, certain food additives or preservatives and other foods mentioned under the heading of asthma. The symptoms may be related to allergy or to some other mechanism. Some children with allergy to artificial milk (liquid as well as powder) may also develop skin rashes, vomiting, and get bleeding from the intestines. Their lungs may also be affected.

TREATMENT: Avoid the allergens. Your doctor may prescribe an antihistamine.

**ANAEMIA**

Anaemia is quite common in infants as well as older children. Keep this possibility in mind if you notice a sudden change in the behaviour of your child or if he starts falling ill too frequently.

**Iron-Deficiency Anaemia**

Although there are other types of anaemia, iron deficiency is the commonest cause, and is common even in children from well-to-do families.

SYMPTOMS: Mild iron-deficiency anaemia may not produce any obvious symptom. But anaemia, if untreated, makes a child irritable, causes loss of appetite, tiredness, starts making him inattentive at school, and prone to recurrent infections. The child's
school performance may suffer. Treatment with iron may dramatically improve his behaviour and general condition. Some of the causes of brain strokes may also be associated with iron deficiency. It is reported that between 10% and 12% of strokes in children can be explained by the presence of iron deficiency.

Iron-deficiency anaemia is common between the ages of 9 to 24 months, and is evident in most children around their first birthday. Children given animal milk are likely candidates even at an earlier age. Anaemia should be suspected in older children, including adolescents, if you notice the symptoms mentioned earlier.

It must, however, be stressed that these symptoms may also be due to other causes. For instance, your child who is ‘not eating well’ may want to feed himself or may be rebelling just because he is being forced to eat. A child behaving oddly may have unfavourable circumstances at home or at school.

After anaemia is suspected, look at the colour of the skin, the conjunctiva of the eye, the tongue and the nails for pallor. Unfortunately, the pallor in the skin and mucous membrane may become evident only when the haemoglobin falls well below the normal (11 gms or more). Again remember that a pale-looking skin is a common feature in children who are fair and are kept mostly indoors.

TREATMENT: As iron deficiency is the commonest cause of anaemia, doctors often ask for CBC (Complete Blood Count) only to diagnose it. The haemoglobin of such patients is lower than normal and the red cells are found to be hypochromic (pale looking) and microcytic (smaller than the normal size). The mean haemoglobin between 6 months and 6 years is 12g/dl (with a normal range of 10.5-14) and between 7 and 12 years, it is 13 g/dl, with a normal range of 11 to 16. The patient is given oral iron in adequate dosage and the blood test is repeated after completion of
the course. The blood picture should return to normal. If not, we conclude that either the child was not given the medicine regularly or the diagnosis needs to be reconsidered. The diagnosis of iron deficiency can be confirmed by doing some further tests.

The total amount of iron is to be divided in 2 to 3 doses per day and given in between meals. The medicine must be continued for 2 months after the haemoglobin level returns to normal. Milk hinders the absorption of iron with meals. Cereals can also interfere with the absorption of iron. However, Vitamin C helps in the absorption, so give your child a citrus fruit or fruit juice after the medication.

**Iron can temporarily stain the teeth a greyish-black. Place the medicine on the tongue and give the child a little water after the dose. If possible, brush his teeth after each dose. Since some iron is excreted with the stools, they may also be dark in colour.**

Some amount of constipation or 2 or 3 somewhat loose motions in a child treated with iron can be ignored. A small percentage of children may get severe constipation with iron. One may try reducing the dose a little (say 7.5 ml per day in place of 10 ml) or try another iron preparation. It must be added that any preparation can cause a bowel upset in an individual patient. However, while a particular patient may not tolerate a certain preparation, he may accept another without any side effects.

Children who do not tolerate oral iron or those whom doctors cannot follow to make sure that the drug is given regularly — like children going out of town — are sometimes given injections of iron.

**PREVENTION:** Apart from exclusively breastfeeding the child for about 6 months, and continuing breastfeeding into the second year, fruits, vegetables and homemade soft
foods should be added to the child’s diet at 6 months of age. Food items that should be specially kept in mind are leafy, green and yellow vegetables, fruits, *ragi* (*nachni*), tomatoes, raisins, red beans and unpeeled potatoes. Non-vegetarians can include meat, liver, egg and fish in the diet. Babies born prematurely are given iron in medicinal form from the age of 6 weeks.

*In a study from Ethiopia, lower rates of anaemia and better growth were found in children fed food from iron pots than in children where food was cooked in aluminium pots. This is a simple and practical method to prevent iron deficiency.*

**Anaemia Due To Goat’s Milk**

Goat’s milk is deficient in folic acid. This deficiency can also result in anaemia.

*TREATMENT:* These children need folic acid. Quite a few medicines containing iron also have folic acid added.

**Pica**

Pica (eating mud, wall scrapings, paper, etc.) can also interfere with absorption of iron.

*TREATMENT:* Oral iron and deworming.

**Hookworm Anaemia**

Hookworms, acquired while walking barefoot on a field contaminated with the ova and larvae of hookworms, can also cause anaemia. The larvae hatch and penetrate the skin of the feet. Adult hookworms hook themselves to the upper intestines and suck blood. The eggs of the worms are excreted in the stools.

*TREATMENT:* People infected with hookworms should be instructed not to walk barefoot and should be treated for eradicating hookworms from the system. Very often,
these people have iron deficiency and need treatment for the same.

Other Causes Of Anaemia

Though rare, certain other causes of anaemia should also be kept in mind: Anaemia in a newborn due to blood group incompatibility (see Jaundice), excessive bleeding at any age; infections, certain drugs, and serious diseases like leukaemia (see Cancer).

A serious type of anaemia due to Vitamin B12 deficiency can occur in breastfed babies whose mothers are on a strict vegan diet (see section on diet in the chapter on PREGNANCY).

G-6-PD Deficiency

A passing reference may be made to a type of anaemia that may occur due to excessive breakdown of red blood cells deficient in an enzyme called G-6-PD. Its deficiency is seen in about 5% of the Indian population. It is more common in communities like the Parsis, Sindhis, Punjabis, Bhanushalis and Lohanas. If severe, the condition can present soon after birth or may appear later due to toxic effects of drugs on these G-6-PD deficient red cells.

MANAGEMENT: A simple test is carried out to detect this deficiency. Children with this diagnosis should avoid drugs like paracetamol, sulpha, certain anti-malarials like primaquine, nitrofurantoin and furazolidone (prescribed for urinary infection and gastro-intestinal infections respectively), the water-soluble form of Vitamin K and chloramphenicol.

Conditions That Can Be Confused With Iron-Deficiency Anaemia

An iron-deficiency type of picture can also sometimes be seen in children with ‘lead poisoning’ secondary to application of
**DR. R. K. ANAND’S GUIDE TO CHILD CARE**

**surma** to the eyes and in children with pica mentioned earlier. *Surma* may contain high levels of lead. In market samples studied in Mumbai, it was found that most had high levels of lead varying from 20% to 80%.

While discussing iron-deficiency anaemia, we should familiarise ourselves with a condition called ‘Thalassemia minor’. Children with this condition also have microcytic, hypochromic type of anaemia. In absence of iron deficiency, these children do not need medication. This is a hereditary condition acquired from one of the parents. It does not harm the child. But if such a child marries a person having ‘Thalassemia minor’, their offspring can suffer from a serious disease called ‘Thalassemia major’. The diagnosis of thalassemia is made by doing a special test for measuring different types of haemoglobins present in the blood.

**ANOREXIA (POOR APPETITE)**

Mothers in rural India will rarely consult a doctor because their children are not eating enough, but almost 50% of urban mothers will bring their children to a paediatrician because they worry they are not eating enough.

If your preschooeler is not eating enough, but is otherwise active and full of life, there is probably nothing wrong with him. I would certainly be worried if a newborn baby suddenly stops suckling. If he has thrush (curd-like white patches which do not come off easily) inside his mouth, a simple treatment will set matters right. Otherwise, a severe infection may be cooking which needs urgent attention.

**CAUSES:** In case you are worried that your child weighs less than those around him, keep in mind that the child who was small at birth (though he was born at the expected time) is likely to remain small. Also, his size will mimic yours or your husband’s. If you are concerned that your child’s weight
gain and appetite seems to be less in the second 6 months than in the first 6 months, remember that an average breastfed infant may gain about 20 to 30 gms of weight per day in the first 3 months, about 15 gms between 3 and 6 months and even less in the next 6 months.

The bulk of the cases of anorexia belong to the age group of 1 to 3 years, and usually parents of first children will bring them in to be examined. In these cases, the mother has usually tried all possible methods to make the child eat, and he has rebelled. Your anxiety probably transfers itself to your child.

An older child or an adolescent who is losing weight (weighed on the same scale at intervals) or one who gets tired easily and appears unwell and listless may also need a thorough check-up and investigations. He may, for instance, be anaemic or may have diseases like jaundice (due to infection of his liver), tuberculosis or a urinary infection.

TREATMENT: Work with a baby’s natural appetite. Just as a baby suckles as much milk as he needs at the breast, a child will usually eat when he is hungry. No intervention is required as long as he is otherwise healthy.

Remember that a toddler likes to play with his food. Nearer his first birthday, he will show interest in feeding himself. If permitted, he will enjoy doing so though he makes a mess and manages to put hardly anything in his mouth. A clever mother allows him to learn to manage by himself. In between, she assists him but makes him feel that he is doing it himself. She does not mind the mess. She knows that the child could be persuaded to eat more without his messing around, but she avoids the temptation to take over and allows him to manage with his own fingers or with the help of a spoon. The moment he shows reluctance to eat any more, she avoids any attempt to make him finish the
remaining food. Such a child is likely to create fewer problems while eating compared to the child of a mother who forces him to eat. Clever handling is the key.

Offering a child too much of milk or milk products is not desirable. At times, the milk may have to be stopped for a couple of months until the child develops healthy food habits.

Children who don’t eat much at mealtimes should be offered food or feeds more often, say every 2 to 3 hours. If a child does not eat enough of one item, but you feel he is still hungry, offer him something else — say a fruit or your feed. Try to get the child involved in the preparation of the meal.

Although some doctors prescribe drugs like cyproheptadine to stimulate the appetite, I do not recommend these.

**Anorexia Nervosa**

In adolescence, girls often fall prey to an eating disorder called anorexia nervosa. The patient gets a compulsive desire to lose weight and becomes emaciated due to vigorous dieting. Dr. Vibha Krishnamoorthy, an expert on developmental disorders, reveals, “Anorexia nervosa, though extensively described in the Western world, is now seen in Indian society, especially in the urban middle and upper classes. The disorder is usually seen in adolescent girls, though it can be seen in boys as well. The child begins to diet, or restrict her overall intake excessively, particularly of fats, resulting in excessive weight loss. It is accompanied by a distortion in the perception of body image — they always see themselves as fat or overweight even if they have lost a lot of weight or are emaciated. The dieting may also be associated with excessive exercise, or the use of laxatives and forced vomiting to lose weight. Although the exact cause of anorexia nervosa is unclear, it appears to occur around the time of adolescence when a girl’s self esteem may be low.
Added to this is the role of the media and societal pressure and the portrayal of very thin women as acceptable or beautiful.” Such a condition is related to a severe emotional disturbance and must be taken care of with the help of a psychiatrist or a family counsellor. Adds Dr. Krishnamoorthy, “Our goal for our children should include encouraging a healthy diet, and at the same time, de-emphasising the importance of looks, and building the child’s overall self esteem.”

Indeed, if your child or adolescent looks unwell in addition to going off food, your doctor might like to have a close look at her to find and treat the other possible causes of anorexia.

★ ASTHMA
See Allergies (page 255).

★ ATTENTION DEFICIT HYPERACTIVITY DISORDER
Although children with Attention Deficit Hyperactivity Disorder (ADHD) are intelligent, they do poorly in school because parents as well as teachers often misunderstand them. Their impulsive behaviour and lack of attention gets on the nerves of others. They are ridiculed for the same and thus they lose their confidence.

SYMPTOMS: The child must have at least 2 of the 3 important features: Inattention, hyperactivity and impulsiveness. An expert must make the diagnosis before any treatment is started. Once the diagnosis is made, these children can be helped with proper management and do reasonably well in school and later in life.

Unfortunately, the diagnosis is often made wrongly or is delayed. In case of the former, parents and teachers forget that many normal toddlers may appear hyperactive and not bother to concentrate. Hence, the diagnosis of ADHD should not be made till the child has spent a year or two in normal
school. Additionally, some drugs can also cause the hyperactivity features of ADHD.

ADHD can also be noticed in certain other conditions like rejection by the family, psychiatric disorders connected with depression and anxiety, deafness and visual handicaps.

TREATMENT: Efforts should first be made to manage the child without any medication. Experts plan structured daily programmes for these children. Daily routines are fixed and followed in a consistent manner. Care is taken to see that the child goes to sleep and gets up at fixed hours and has regular timings for his meals and studies. The child gets rewards for his good behaviour. Teachers need to give the ADHD child individual attention. Parents as well as teachers should set up small attainable goals for him to build his confidence and self-esteem. Cases with a definite diagnosis and which do not improve with this approach may require certain specific drugs. When clearly indicated, these drugs are helpful, but they should be given only under expert supervision, so that the dose can be properly adjusted, keeping the possible side effects and efficacy in mind.

★ AUTISM
A disease of uncertain causation, autism (or Pervasive Developmental Disorder) is a developmental disorder of the brain, due to which the child has difficulty in communication and in socialisation. It is much more common than previously thought — the incidence of autism the world over is about 2 per 1000 persons, and is 4 times more common in boys than girls. The exact cause of autism is as yet unknown, but we do know that it is not caused by events after birth, such as a difficult delivery or a certain way of bringing up a child.

Reveals Dr. Vibha Krishnamoorthy, an expert on developmental disorders, “The stereotype of an autistic child being alone in a corner rocking himself or being unable to
show affection is not necessarily true. It is now recognised that autism is a 'spectrum' disorder that can vary greatly in the way it presents."

SYMPTOMS: All children with autism have 3 main areas that are affected:

- **Language**: is usually delayed. Speech may also be unusual, in the form of repeating the same word or phrase over and over again, or repeating the question that was asked. The child may also have difficulty using language meaningfully, such as initiating a conversation, or asking-relevant questions.

- **Socialisation**: The child with autism is less interested in socialising with other children than his peers. He may prefer to play alone. There may be difficulty getting him to make eye contact. The child may also have trouble taking turns, e.g. throwing a ball back and forth.

- **Unusual behaviours**: Children with autism have a need for sameness. They may prefer to do certain things the same way, such as liking the day’s routine, or lining up their toys in the same way. They may show some unusual behaviours such as rocking, spinning, hand flapping or watching lights.

It is not necessary for a child to have all the above features for the diagnosis of autism.

TREATMENT: Although there is no cure for autism, early diagnosis by an expert is extremely important, as early behavioural and educational intervention can lead to improvements. With help, almost every autistic child will make progress and can lead a satisfying life.

**BACKACHE**

Backaches are not common in children, so don’t ignore the complaint if your child has a persistent backache for more than 2 to 3 days.
CAUSES: Unaccustomed, undue or sudden exertion could cause a backache. Has your child recently joined a gym or yoga or karate classes? Has he developed a new interest in athletics? If he looks otherwise well, wait for a few days more and things should settle down. An older child having emotional problems at home or in school may also present with backache. Backache could be a part of a flu-like illness presenting with fever and generalised body ache and relieved by paracetamol. But if the pain persists for over a week, call your doctor.

The spine is made up of a number of small bones called vertebrae, each separated by a disc from its neighbour. The pain could be due to a disease of the vertebrae or the disc. The cause could be an acute infection or even a chronic infection like tuberculosis. Scoliosis (curvature of the spine), rheumatic diseases or even malignant diseases like tumours and leukaemia can also cause backache. But this is not common.

Sometimes, the pain may not be related to the spine. For instance, a child with urinary infection may also complain of pain in one or both sides of the lower back.

TREATMENT: Depends upon the cause.

★ BED-WETTING (ENURESIS)
Bed-wetting must be differentiated from the situation where the child’s nappy or pant is wet all the time during the day as well as at night. In such a condition, immediately see your doctor to rule out urinary infection, any congenital abnormality of the urinary tract, diabetes or diseases connected with the nervous system.

You need worry about bed-wetting only if your child is constantly wetting his bed in sleep after his fourth birthday. Ordinarily, as soon as the bladder of a child aged 3 or more becomes full, he gets signals from his bladder to empty it.
some families, this system takes more time to develop. It is possible that your older child or even your husband had a similar history. And knowing this usually helps the prognosis. Incidentally, girls tend to achieve bladder control earlier than boys. It is reported that 77% of children suffer from enuresis if both parents were enuretic as children, and 44% when only one parent has a positive history. If one identical twin has enuresis, there is a 40% to 50% chance that the other will have the same problem, independent of the parents’ status. For non-identical twins, this likelihood decreases to 20%.

CAUSES: Bed-wetting beyond the age of 4 is possibly due to a delay in the maturation of the nervous system that controls the bladder mechanism — for inherited reasons or otherwise.

Take note, however, if your child who has remained dry all through the night for a sufficiently long period reverts to bed-wetting. There are usually psychological factors causing such ‘accidents’. Examples of these could be sibling rivalry due to the arrival of a new baby, moving to a new house, joining a new school or emotional disturbance because of a problem at home or in school.

MANAGEMENT: A child who wets the bed is not doing it ‘to teach you a lesson’, nor are you an inefficient parent. The fact is that he cannot control his bladder. Hence, he deserves to be understood rather than punished. He should not be put to shame for this act in the presence of others, especially his friends. It appears that, in general, development of bladder and bowel control is a maturational process that cannot be accelerated by early onset and high intensity of toilet training.

Some parents restrict the intake of fluids towards late evening; it is worthwhile seeing if this works for your child.
Another method is the ‘alarm device’, an electric appliance connected to a pad on which the child sleeps. As soon as the child passes the first few drops of urine, the alarm rings. If your child is amenable, explain to him that this is a signal for him to wake up and pass urine. Otherwise, wake him up yourself, have him put off the alarm and pass urine. Gradually, he will be conditioned to stop passing urine as soon as he hears the alarm. In due course of time, he will be conditioned to control his urge to pass urine until he wakes in the morning. Continue using the alarm device for a month or two after control has been achieved.

Drugs may be prescribed in resistant cases. Imipramine is commonly prescribed. If used and found helpful, it must be continued for a period of 3 months. Do not use this drug without the advice of your doctor, because it has known side effects. Desmopressin, in the form of a nasal way, has also been found to be helpful. An oral preparation of desmopressin (not yet available in the market) is preferred because nasal delivery can be compromised by the common cold and allergic rhinitis. Fortunately, most cases can be handled without drugs and with the help of a competent and sympathetic physician.

Laughter And The Passage Of Urine
Mention may also be made of children who, although they otherwise have full control of their bladders, involuntarily pass urine when they suddenly burst out laughing. This condition improves spontaneously as the child grows up.

★ BIRTH DEFORMITIES AND CONGENITAL ABNORMALITIES
These two terms are often used interchangeably. Birth defects are rare, usually minor and cause no harm to the baby. The more serious ones include hare lip, cleft palate, congenital heart disease, Down’s Syndrome and spina bifida.
CAUSES: Do not feel guilty if your baby is born with a birth defect; it is usually due to a factor beyond your control.

Two avoidable causes of birth deformities, however, are the use of alcohol and tobacco during pregnancy.

Similarly, certain drugs taken during pregnancy, especially during the first 3 months, can cause problems. If you are pregnant, don’t take any drug without first checking with your doctor.

Birth defects could also be due to abnormalities of chromosomes. These are present in the nuclei of all our body cell except the red cells. We have 46 chromosomes. Twenty-three are passed to the child from the father and 23 from the mother. These chromosomes carry several genes on which depend our looks, the colour of our eyes and the size of our nose, and also the way different cells in our body function.

Abnormalities of chromosomes can result in certain diseases like Down’s Syndrome.

If the defect is due to a chromosomal abnormality, and this happens to be your first child, you could not have done much to prevent it.

PREVENTION: Discuss the risk of birth defects with your doctor if you are married to a close relative (consanguineous marriage), if you have diabetes, the thalassemia trait (see Amzemia) or any infection like German measles during pregnancy.

It is advisable for parents of a child with a birth defect to seek the advice of a genetic counsellor before they decide to have another child, because some defects can occur in more than one child. Your family doctor or paediatrician can guide you in this matter.

Folic acid taken during pregnancy greatly reduces the chances of the baby being born with spina bifida.
Mosquito And Bed Bug Bites And Bee And Wasp Stings
A mosquito bite can be recognised by the slightly raised red area with a bite mark at the centre. Consider the possibility of bed bugs when your child starts itching soon after a bus or a train ride; there will usually be a bed bug under his pants. He has probably been stung by a bee or a wasp if he was in a garden and complains of severe pain and swelling at the site.

Sometimes, insect stings may result in anaphylactic shock (see Allergies).

Spiders are also a cause of problems similar to bees and wasp stings. The bite of the monitor lizard (Goh), although it has a forked tongue like that of a snake, is not poisonous.

**TREATMENT:** Most insect bites subside within a day or two without any treatment. Calamine lotion helps to reduce the itching. For wasp or bee stings, ice packs with a small hand towel or a piece of cloth should be applied locally, despite the child’s initial protest. Applying vinegar on a wasp sting and lime on a bee sting also relieves pain.

Bees also have a venom sac attached to the stinger. If the stinger is present, scrape it with a knife. Do not try to remove it with your finger, otherwise you may squeeze the venom sac and push more venom into the child’s system. The stinger of the honeybee is difficult to remove, so leave it alone.

If the child goes into anaphylactic shock, consider the situation an emergency and seek immediate help.

**PREVENTION:** To prevent insect bites, avoid areas where the insects are more likely to be around (gardens, pools of water, etc). Though many insects are colour blind, some are attracted by bright colours and flowery prints. A strong smell also attracts insects. Dress the child accordingly. Keep his limbs covered in full-length trousers and full-sleeved shirts.
you decide to use an insect repellent cream, read the product label to ascertain its safety for babies. Even if safety is assured, use sparingly and only on exposed parts; the medicine in these repellents can get absorbed through the baby’s thin skin and can be harmful. If mosquitoes are a problem at night, keep the windows closed in the evening (when mosquitoes are more likely to enter into the room). Open the windows at night and use a mosquito net that covers the whole bed. Do not use an umbrella-type net for small babies; it may close automatically and injure the baby. Also note that repellents help prevent bites by mosquitoes and not those of bees and wasps.

Avoid using mosquito coils; they can cause chronic cough in some children. Dr. N. G. Wagle, an expert in this field, advises that 5 to 10 ml. of citronella oil be mixed with 100 ml. of coconut oil, a cotton swab dipped in the oil and kept near the head-end of the bed to repel the mosquitoes which are attracted by the carbon dioxide exhaled by a person. The oil can also be used for the skin in place of mosquito repellent creams. If a mat is to be used, switch on the appliance an hour or so in advance and when the child is not in the room. Open the windows after an hour or two. Switch off the appliance and then bring the child in; the mosquitoes in the room will have been dealt with and new ones are less likely to come in, once it is dark.

**Scorpion Stings**

These can be very painful. More than 80 species of scorpions are seen in India. The most dangerous species is the red scorpion, whose sting can cause systemic manifestations like vomiting, profuse sweating, abdominal pain, agitation and confusion.

**TREATMENT:** Localised treatment with an ice pack in a hand towel or a piece of cloth helps. Apply pressure on the wound with a thick bandage or pieces of cloth to reduce the
risk of spread of the venom. Scorpion antitoxin, if available, should be injected preferably within 2 hours of the scorpion bite. A child with systemic features must be hospitalised.

PREVENTION: Teach your children to turn their shoes upside down before wearing them, especially in a scorpion-infested rural area.

Snakebites
Most snakes in our country are non-poisonous, helpful in killing mice and other harmful pests, and should not, therefore, be wantonly killed.

It is, however, important to seek medical advice for all suspected cases of snakebite. It is helpful to know that even when bitten by a poisonous snake, a person may not suffer any ill effects if no venom has been injected into his system.

There are 4 common poisonous snakes in India. They are the Indian cobra (Nag), the Indian krait (Bangam), the Russel’s viper (Daboia) and the saw-scaled viper (Phoorsa). While the cobra is familiar to us, the krait has white transverse lines right from the neck down to the tail. The viper has a triangular head and a narrow neck.

SYMPTOMS: It is important to know about the symptoms of poisoning due to snake venom because the bite may not always be obvious. If your child complains that he has been bitten by a snake, take it seriously and look for the site of the bite; the bite marks of a poisonous snake differ from those of the non-poisonous variety. Poisonous snakes have long fangs. The bites of these snakes display the marks of the two fangs. The bites of non-poisonous snakes leave behind the marks of two rows of teeth marks, but no marks of fangs (see illustration).

The symptoms of snake poisoning are specific to the snake that has bitten the person. The venom of the cobra and krait
THE A - Z OF CHILDHOOD ILLNESSES

Snake bite

Fang marks from the bite of a non-poisonous snake.
Teeth marks are often absent.

Two rows of teeth marks from the bite of a non-poisonous snake.

Snake bite

affect the nervous system. Besides pain at the site of the bite, the patient may also manifest weakness of the eye muscles, resulting in drooping of the eyelids, double vision and squint. There may be difficulty in swallowing, cough and paralysis of the muscles required for breathing. The patient may also complain of pain in the abdomen, loose motions and vomiting. The blood pressure may drop and the patient may collapse. The respiratory paralysis can lead to death if the patient does not receive adequate treatment in time.

Swelling at the site of cobra and krait bites is not common.

Compared to the cobra and krait, a viper bite is usually very severe and the local swelling is quite marked. Blisters may form around the site of the bite. The bite of the viper affects the blood system and prevents clotting. Patients develop vomiting, the blood pressure falls and bleeding may occur from different parts of the body. The bleeding may continue if treatment is not given and the patient may go into a state of shock.

TREATMENT: Treatment for snakebite must be prompt. If the snake — alive or dead — is available, take it to the
hospital for the doctor to decide if it is poisonous or not. Do not panic. Keep the child on an empty stomach.

Do not suck the bite site or make cuts into it. Keep the bite site lower than the level of the heart; apply a tourniquet or a rubber tube or any constricting band between the bite site and the heart. To maintain the blood supply, the tourniquet should be slackened for a few seconds at regular intervals of about 10 minutes.

The bitten part should be kept steady. Usually, the bite is on the lower limb. As the venom spreads faster on movement, the child should not be allowed to walk.

The venom from the site usually spreads through the lymph vessels lying under the skin. The best way to reduce the risk is to put a pressure bandage on the limbs and to immobilise it with a splint. (Take any clean cloth or a crepe bandage, if available, and apply it over the bite site and above it. Then apply a splint — a thin long piece of wood or any other material — that should include joints on either side of the bite. This prevents the use of the muscles around the bite site and hence reduces the lymph flow and the spread of the venom.

Carry the child flat with the bite site at a level lower than the heart.

Paracetamol can be given for pain. Local application of ice reduces the pain. Since direct prolonged contact of ice with the skin can result in damage to the underlying tissues, crush the ice and pack it around the bandage.

For poisonous bites, an injection of a polyvalent antivenom (which protects against venom of all common poisonous snakes) must be given as soon as possible. Do not delay in taking the child to the nearest hospital. He may also need antibiotics and protection against tetanus. Those with severe complications may also have to be administered blood and blood products and put on artificial respiration.
**BLEEDING**

COMMON CAUSES:

**Cuts**
See Cuts (page 322).

**Nosebleeds**
See *Nose-Related Problems* (page 374).

**Vomiting Of Blood (Haematemesis)**
This could be due to severe bouts of vomiting without any bleeding disorder. It can also be due to drugs like aspirin and certain other pain-relieving drugs, especially if these are taken on an empty stomach. Liver disease and portal hypertension can give rise to dilated blood vessels in the oesophagus and stomach which can bleed.

**Blood In Stools**
This can be due to a fissure caused by hard motions in a child with constipation. In such a case, the hard stools are streaked with fresh blood. A rectal polyp is another cause for passage of fresh blood in the stools. The typical history is that of a child who passes drops of fresh blood after having passed a motion.

**Spitting Of Blood Or Haemoptysis**
This could be due to certain diseases in the lungs. Blood trickling from the back of the nose and brought out from the mouth can also be mistaken for haemoptysis.

MANAGEMENT: For cuts and bleeding from the nose, see sections on *Cuts* and *Nose-Related Problems* respectively.

Take your child to a doctor or hospital immediately in these situations:

- If your child is bleeding persistently or profusely.
If the child is bleeding and has unexplained fever, looks severely anaemic, has jaundice, complains of persistent headache or has disturbed consciousness. Such a child could have serious diseases like leukaemia, severe liver disease, meningitis or bleeding inside the skull (intracranial bleed).

If there is a history of bleeding in him or other members of the family, or bleeding following minor injuries, or there is spontaneous bleeding from any site without any provocative factors. Such a child may have a hereditary condition called haemophilia. This needs to be fully investigated and managed properly under expert advice.

★ BONE, JOINT AND MUSCLE INJURIES

Injuries To Bone
Fractures in children are not uncommon and usually not serious. For instance, when children learn to walk, they fall frequently and can get the so-called ‘toddler fractures’. The child avoids putting weight on that leg and tends to limp. These fractures usually heal without any treatment. But if the symptoms persist for more than a day or two, you must see your doctor. Fortunately, most get better by restricting the movement of the part and surgery is rarely needed.

After an injury, the bone may not fracture right through. It may just bend and a crack may be noticed only on one side of the bone. If the bone breaks through the skin and comes out of the surface, it is termed an open fracture and needs much more careful handling.

Fractures affecting the growth plate at the end of the bones also need specialised treatment. Otherwise, the normal growth of that particular bone is affected.

MANAGEMENT: If you suspect a fracture (pain, local swelling and lack of movement of the affected limb), make a
splint from a piece of wood or folded newspaper. Put it under the injured site to prevent movement. Use cold compresses on the site till your doctor sees the child.

If there is a possibility of a fracture affecting the spine or neck, do not move the child yourself. Let the doctor handle the case. If there is bleeding, apply firm pressure on the wound (see *Cuts*).

The doctor may ask for an X-ray and decide to set the bone by manipulation (closed reduction) or by an operation (open reduction).

**Pulled Elbow**
Your child is walking by your side with your hand holding his. He suddenly decides to move away from you. You pull him forcefully towards you. He complains of pain near his elbow, which is slightly bent. Straightening the elbow causes more pain. This is the description of a pulled elbow. These children have a rather loose elbow joint. When you pulled him, the upper end of the bone nearer the arm was pulled towards you, creating a space between this bone and the other bones. The tissue nearby slid into this newly created space. When the pull is released, the bone goes back to its earlier position, the tissue gets trapped inside the joint and the child feels pain.

**TREATMENT:** A doctor in a hospital’s casualty department can easily set it right to bring immediate relief from pain.

**Sprains Affecting A Joint**
The common example is a twisted ankle joint. The ligament holding the joints together is either stretched excessively or gets torn. Your child feels pain, refuses to walk and you notice swelling around the particular joint.

**TREATMENT:** As there could be an underlying fracture, a medical opinion is desirable. Keep the joint motionless while...
waiting for your doctor. If you have an elastic bandage, wrap it around the joint, but not too tight. Remove it for a while every 2 hours to make sure that blood flow is not obstructed.

For pain, you can give the child paracetamol or ibuprofen. Keep the joint raised and give cold compresses with crushed ice in a small hand towel or a piece of cloth. If you are unable to consult a doctor, apply cold compresses for about 20 minutes, once every hour, for a day or two. After a day or two, the swelling will become less or not increase any further. Then give hot compresses every 2 or 3 hours.

In case the child cannot move his toes or the foot appears limp, deep-seated serious injuries might have occurred. Urgent medical advice is needed.

**Injury To The Tip Of The Finger Or Nail**

This can be very painful and may even lead to a permanent deformity of the growing nail. The tip of the finger can get caught in the closing door of the car or at home. Sometimes, the injury is not severe and the child does not complain of much pain. There is not much swelling as well. Such cases can get better without any treatment. The problem arises if you notice swelling or blood under the nail.

**TREATMENT:** Such a situation needs urgent medical attention. While waiting for your doctor, give cold compresses with crushed ice in a small hand towel or a piece of cloth. If ice is not available, take cold water and let the finger be dipped in it. If the skin is cut, wash it with soap and water and put sterile gauze (available in packets with your chemist) on it. If the finger is bleeding, a cold compress will help. Too much pressure to stop the bleeding should be avoided, as there may also be an underlying fracture. Keep the finger a little raised.

The doctor will decide if there is a need to remove blood from under the nail by making a small hole in it. If he suspects
a fracture, he will ask for an X-ray. Consulting an orthopaedic surgeon is essential if a fracture is confirmed or if there is damage to the nail bed, where nail growth takes place.

**Injury To The Muscles**

SYMPTOMS: Muscles are strained after sudden activity and exertion. Your child may complain of severe pain in one or more muscles. He may not be able to move the affected part, possibly because of bleeding within the muscle that makes it stiff.

TREATMENT: Raise that limb and gently massage it after applying hot compresses. In future, let him start an exercise to which he is unaccustomed gradually and do warm-ups before any active sport.

**BOWLEGGS AND KNOCK-KNEES**

Most infants are bowlegged. Similarly, most preschool children have knock-knees. Both these conditions usually need no treatment. The legs become straight in almost all cases before the child starts school.

Rickets can cause bowing of legs, but the child will also have other features of rickets. You should also consult your doctor if only one leg is affected or if the bowlegs seem to get worse after 2 years of age.

In case of knock-knees, if the gap between the ankles, with the child lying down (legs touching the bed), is more than 10 ems. or if the knock-knees persist after 7 years of age, further investigations and treatment may be required.

**BREATHLESSNESS**

Take note when any child breathes over 50 times a minute.

Smaller children normally have a faster rate of breathing than older children, but you should immediately show the child to a doctor if the rate of breathing is as follows:
DR. R. K. ANAND’S GUIDE TO CHILD CARE

Upto 2 months of age       60 or more per minute
2 months to 1 year         50 or more per minute
1 to 5 years               40 or more per minute
Older children             30 or more per minute

To count the rate, place your watch (with a seconds’ hand) over the chest of the child and count the number of breaths per minute.

Along with fast breathing, if the spaces between the lower ribs of a child’s chest go in as the child breathes, rush to the doctor. If such a child is unable to drink anything, it is a medical emergency and the child should be taken to hospital immediately.

COMMON CAUSES: A few common causes of breathlessness discussed under individual headings are:
- Pneumonia (see Pneumonia)
- Asthma (see Allergies)
- Bronchiolitis
- Stridor associated with a foreign body or serious infection of the throat (see Stride)
- Heart failure due to congenital or acquired heart disease (see Congenital heart disease)

BRONCHIOLITIS

SYMPTOMS: An infant between 2 and 6 months of age, having mild cold-like symptoms with low fever, may become rapidly ill and restless, develop severe cough, fast breathing (50 or more breaths per minute) and wheezing, and may become blue. This picture suggests the possibility of the child having bronchiolitis. This disease is seen mostly during the winter months. It is due to a viral infection and hence antibiotics are not helpful.

TREATMENT: Children with bronchiolitis often need hospitalisation. An X-ray will be taken. Oxygen and intravenous fluids may have to be given. If the chest X-ray
shows evidence of a bacterial pneumonia, antibiotics will be prescribed. If the infant gets more than one attack of the so called ‘bronchiolitis’, it is possible that he has asthma and not bronchiolitis.

Try and prevent bronchiolitis by keeping your child away from children or adults who have a viral cold.

★ BURNS
Prevention of burns should be of paramount importance (see chapter on PREVENTION OF ACCIDENTS). Minor burns may cause discomfort, but severe burns can endanger life or lead to crippling deformities.

TREATMENT: Whatever the extent of the burn, first put cold water over the burn. Do not use ice. If cold water is not available, keep pouring tap or stored water over the area for some time. Remove all clothing from the burnt area. Cover the area with a clean piece of cloth. Do not apply any ointment, ghee or honey without the advice of your doctor. Do not puncture the blisters. Generally, doctors leave the small blisters alone. The large blisters are often punctured to avoid accidental rupture and consequent infection.

Let your doctor decide if the child needs hospitalisation. This may have to be considered in case of burns of the face, hands, genitals and feet; in all third-degree burns (see below); first and second-degree burns involving more than 25% of the body (see table); and burns due to chemicals or electric shock.

In first-degree burns, the patient only has redness with or without slight swelling of the skin. Second degree burns cause blisters and much swelling. Third degree burns damage even the deeper layers of the skin. The skin may appear white or charred.
The extent of the burns is calculated by the ‘Rule of Nine’.

**RULE OF NINE**

<table>
<thead>
<tr>
<th>Part of the body</th>
<th>Percentage</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>9 (18 in infants)</td>
<td>9</td>
</tr>
<tr>
<td>Front and back</td>
<td>18 each</td>
<td>36</td>
</tr>
<tr>
<td>Upper limbs</td>
<td>9 each</td>
<td>18</td>
</tr>
<tr>
<td>Lower limbs</td>
<td>18 each (13.5 in infants)</td>
<td>36</td>
</tr>
<tr>
<td>Perineum</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

In case of extensive burns, do not give anything by mouth to the child until you have seen the doctor. Otherwise, plenty of liquids should be given. If the child has received his usual immunisations (including DPT or triple antigen) as per schedule, there is no need for a tetanus toxoid except for severe burns when your doctor may decide to give it. If a booster dose of DPT (Diphtheria, Pertusis and Tetanus) is due, it can be given. This includes tetanus toxoid.

**CALCIUM DEFICIENCY**

Calcium deficiency can lead to irritability, jitteriness, tremors and convulsions in newborn babies. It can also be seen in older infants and preschool children in association with Vitamin D deficiency. Pregnant and lactating mothers must have adequate amount of calcium and Vitamin D in their diets to prevent problems associated with calcium deficiency. Artificially fed children are more prone to develop calcium deficiency. The high phosphate content of non-human milk depresses the level of calcium in the blood. Though rare in breastfed infants, calcium deficiency can occur in such infants whose mothers are deficient in calcium and Vitamin D.
PEVENTION: Exposure of infants and mothers to adequate sunlight can help in prevention of this condition.

Also see Rickets.

★ CANCER
Cancer does not respect age. It can affect even children.

SYMPTOMS: Hodgkin’s Disease is cancer of the lymph nodes or glands. Leukaemia refers to cancer of the blood. In both these diseases, the child feels weak, complains of poor appetite, can lose weight, and may have unexplained fever and enlargement of his liver and spleen. In both conditions, the child can have enlargement of the lymph nodes, but the nodes are likely to be much more enlarged in Hodgkin’s disease. They can be found in different parts of the body, including the abdomen, chest, armpits and groin, but are more likely to be discovered first in the neck. The chest nodes are usually detected in an X-ray of the chest.

In leukaemia, severe anaemia, a tendency for bleeding and tenderness in the bones are the more salient features.

Bone tumours cause pain and swelling at the site of the tumour. The bones of the limbs are commonly affected.

Brain tumours lead to persistent headaches, vomiting, tiredness, visual disturbances, unsteady gait and convulsions.

Children can also have cancer of the kidney (Wilms’ tumour), the suprarenal gland lying above the kidney, the liver, the skin and the eye.

The Silver Lining
Fortunately, early detection and treatment can now save over half the children who get afflicted by cancer.

Although the treatment is an expensive and painful affair, the prognosis is usually good in children.
CARDIAC PULMONARY RESUSCITATION (CPR) AND MOUTH-TO-MOUTH BREATHING

Timely help can save a life. You must practise the technique of mouth-to-mouth breathing in advance.

Have someone call for an ambulance or a doctor, while you start on the procedures.

Check For Breathing, Not Pulse

Look for movement and any sign of breathing, including coughing. If these are absent, call for an ambulance and start chest compressions.

Positioning Hands

Compressing and releasing the chest (see steps 5 and 6) helps force blood out of the heart and into the rest of the circulatory system. Simply place your hands between the victim’s nipples to locate the sternum. For children over age 8, perform 15 compressions before giving 2 rescue breaths.

Mouth-to-Mouth Breathing

Mouth-to-mouth breathing, in which you exhale into the victim’s mouth, remains an essential part of CPR. But if you are unable or unwilling to give the mouth-to-mouth resuscitation, chest compressions alone should increase the victim’s chance of survival, especially if medical help is imminent.

Steps To Be followed If The Child Stops Breathing

Step 1: Shout for help to get an extra hand and to summon a doctor.

Step 2: In the case of a child, clear the mouth. Check if anything is stuck in the mouth or throat. Pull the tongue forward. Remove any foreign object or food that can be removed easily with your fingers. If removal seems difficult, follow the section on choking.
Step 3: Let the child lie on his back on the ground or any other firm surface like a strong table. Tilt his head back so that the tip of his nose faces the roof or sky. Open his mouth wide.

Step 4: If he is still not breathing, start mouth-to-mouth breathing. For this, take a deep breath. For an infant, place your mouth over his mouth as well as the nose, closing your mouth firmly over them so that no air leaks. Then, blow gently to make sure that his chest rises a little. Do not blow with too much force in an infant, because you may rupture his lungs.

In case of an older child, pinch his nostrils with one hand and place your mouth only on his mouth. Breathe into the child’s mouth forcefully to ensure some lifting of his chest. Give 2 such breaths.

If the chest is not moving, follow Step 2 again.
If the chest rises with mouth-to-mouth breathing, remove your mouth from his mouth and after every breath, take a deep breath and breathe again into his mouth at a rate of about 20 breaths per minute until he starts breathing on his own or until you are sure that he is dead. This effort may be needed for about an hour.

Step 5: Sometimes, the heart also stops beating in such a situation. After the first two breaths, check the pulse. In small infants, put 2 fingers gently to feel for the pulse in front of the elbow. In older children, feel for the pulsation in the neck a little away from the windpipe at the level of the Adam’s apple.

If you cannot feel the pulse, you must begin cardiac (heart) massage by pressing on the breastbone lying in the middle of the chest.

Step 6: If you have help, one of you should do the cardiac massage while the other does mouth-to-mouth breathing. In case of an infant, press on the breastbone with 3 fingers,
placed a little below the level of the nipple. Press the bone about an inch at a rate of about 100 per minute (see illustration).

If you are alone, give one breath for every five compressions (or massage).

For an older child, you may need to apply more pressure, using the heel of the hand. For an adolescent, you may also need to place the heel of one hand on top of the other hand and then press down about one and half inches (see illustration).

Continue this exercise until you can feel the pulse or until you are sure that the person is dead. It is worth trying this for half an hour to one hour before you give up.

**Mouth-to-Mouth Breathing And Drowning**
If the child is not breathing on his own, follow the same procedure as given above, under mouth-to-mouth breathing. Do not waste precious time trying to get water out of his
chest. In fact, the person trying to rescue the child is advised to start mouth-to-mouth breathing, as soon as he reaches waters shallow enough to stand in (see illustration).

★ CEREBRAL PALSY (CP)

A child with cerebral palsy is also sometimes called a spastic child because, in quite a few children with cerebral palsy, the muscles have increased tone. But this is a misnomer because some children with cerebral palsy can also be hypotonic or limp.

SYMPTOMS: Though the cause is not known in most cases, a child whose brain has maldevelopment or has been damaged during pregnancy, at the time of delivery or soon after birth, runs the potential risk of cerebral palsy. Children who had severe jaundice within 30 hours after birth or those born prematurely can also get this disease.
Unusual stiffness of the body or limpness should alert us to the possibility of CP.

If you notice that your child is slow in learning new skills as compared to his older sibling or children his age, you should consult your doctor to rule out this possibility.

Besides stiffness or limpness, these children can also have other problems like excessive drooling, speech disturbances, dental, eye and hearing problems, convulsions and different grades of mental retardation. However, 50% of children with CP are mentally normal.

MANAGEMENT: Early diagnosis helps in management. However, do not despair if your child's diagnosis was delayed; a holistic approach to management will benefit the child at any age.

If there is a specialised centre nearby for care of children with CP, your doctor will refer you there for treatment. Otherwise, write to the Spastics Society of India, K. C. Marg, Bandra Reclamation, Mumbai, with the background of the child. They may suggest the centre nearest to your home.

No specific drug is available for CP. But sometimes a drug to reduce the stiffness may be advised. Occasionally, an expert may administer an injection into specific muscles. It is important that this injection be given in the early years of life (preferably in the first 5 years) so that child can learn to walk near-normally. Some children may benefit from surgery. No treatment should be undertaken without expert advice.

Hearteningly, many children with CP can become useful citizens. With training, most of them learn to look after themselves, though a small number may need supervision for several years.

A child with CP improves much faster if both parents share the responsibilities of his care. Living in a caring joint family can prove advantageous. As a child with CP often needs extra
care, there is always a possibility that your spouse or other children may feel neglected, and this can lead to other problems. Guard against this by involving them in the care of the special child.

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CHICKENPOX

Chickenpox in children is usually a very mild disease. It occurs less frequently in older children and adults, but if they get the disease, it is more extensive and causes a lot of discomfort to the patient.

Chickenpox is a viral infection and highly infectious. If one child gets the infection at home or in the school, those in contact with him are likely to contract the disease after a period of 2 to 3 weeks. As the disease usually confers lifelong immunity, you are safe if you have had it before.

ONSET AND COURSE: Often, the first thing you will notice are one or two tiny blisters on the back or chest. The child is otherwise normal. New blisters appear rapidly. The blisters form crusts or scabs. Some children, specially older ones, may get high fever and look quite ill, while younger ones may have low fever or no fever at all. The rash of chickenpox usually begins within a day of the onset of fever, in the form of red spots that itch. Within a few hours, they turn first into small pimples and then into blisters on a red surface (almost like a dew drop on a red leaf). The spots are very itchy. The blisters with clear fluid become cloudy within a day and then become crusted. While this is happening, new red spots or blisters may be noted in the nearby area. Typically, in a small portion of the body, you may notice the rash in different stages — the red spot, the clear blister, the cloudy blister and the crusted one — at the same time.

The rash is mostly confined to the chest, back, face and head. The legs and hands are generally not involved. Spots may also appear in the mouth and vagina. Small glands often
develop at the back of the neck and the armpits. The total period of the illness is about a week to 10 days. While the disease may initially be confused with insect bites or pimples, the rash of chickenpox keeps changing its characteristics very fast, while insect bites or pimples do not follow this pattern.

Once all the spots become crusted and no new crops appear, the patient is no longer infectious. He can infect others from a day before the spots are first noticed to the day all the spots are crusted. Once that happens, the child should be ready to go to school and play with other children. Unfortunately, in some schools, the child is not allowed to join till all the scabs or crusts have fallen off. It is to be noted that whereas the scabs of smallpox, which is now eradicated, could infect others, those of chickenpox cannot. Interested parents may consider meeting the school authorities in this connection so that children are not unnecessarily kept away from school.

TREATMENT: The spots of chickenpox are very itchy. A daily bath helps because sweating increases the itching. Keep the child’s nails short. Explain to an older child that he should avoid scratching because it may leave behind scars. For smaller children, mittens may be used at night. If itching is severe, apply cool packs of cloth soaked in water from boiled and strained neem leaves. Plain calamine lotion applied to the spot also reduces itching. It is not advisable to use calamine mixed with other ingredients. Neem leaves may also be spread on the bed sheet. If the itching is very severe, your doctor may prescribe an antihistamine preparation to be given by mouth. If the fever does not bother the child, avoid using any drug. If required, a paracetamol preparation may be used to lower the temperature. Never give aspirin to a child suffering from chickenpox or influenza, because it may lead to a serious disease called Reye’s Syndrome. No diet restrictions are required. The child should be allowed to eat his usual healthy nutritious food. If he does not feel hungry, make sure
he has enough of liquids including fruit juices, coconut water and plain water.

Complications In Children And During Pregnancy
While chickenpox is not a serious disease, complications like pneumonia and encephalitis can sometimes occur.

If a pregnant woman gets the disease in the first three months of pregnancy, there are 2% to 3% chances of her baby suffering a birth defect. A newborn is protected from getting chickenpox if his mother has had chickenpox in the past. But the risk of a newborn getting the disease are quite high (about 50%) if the mother develops chickenpox within 5 days before or 2 days after the delivery. A baby whose mother develops chickenpox after delivery may be given chickenpox immunoglobulin, if available. These babies should be kept away from other children for 3 weeks. If the mother has had chickenpox, her newborn is protected for about 6 months. Such a newborn can be brought home if the older children are having chickenpox. If the mother is not sure if she has already had chickenpox, the newborn should be kept away from the older children for about 2 weeks.

A particular drug for the treatment of chickenpox is reserved for special situations to be decided upon by your doctor. In any case, it is really effective only if the drug is started within 24 hours of the onset of the disease. Antibiotics are also of no use in this viral infection except in rare cases where secondary bacterial infection might have supervened.

★ CHOKING
SYMPTOMS: Your 2-year-old is eating peanuts and running around. Suddenly, he starts coughing violently. There is a strong possibility that he has inhaled the peanut into his windpipe, resulting in obstruction to the free flow of air. Do not panic. Coughing might help in expelling the peanut. Sometimes, if the obstruction is more severe, due to a foreign
object or food, he may not be able to talk normally and may turn blue. Treat this as an emergency and act quickly as detailed below. Sometimes, a little water or milk or soup or any other liquid tends to go into the windpipe and the child coughs to stop that or to expel the little liquid that might have gone into the windpipe. This need not be a cause of worry.

**MANAGEMENT:** Emergency steps to be followed:

**Step 1:** If your small infant has difficulty in breathing and is becoming blue, shout for help. Lay him in a head-down position on your forearm. Let your arm rest on your tilted thigh with his head just below your knee. Then give 4 rapid blows on his back with the heel of your other hand between the 2 shoulder blades (*see illustration* on page 302). It may be inconvenient to rest an older infant on the arm. Lay him face down on your lap, with his head towards the ground and supported with one hand.

**Step 2:** If you find no improvement, put him on the floor on his back. Using 2 or 3 fingers, give 4 rapid chest thrusts over the breastbone lying in the centre of the chest.

**Step 3:** If you can now see the foreign object or food in the child’s mouth and feel confident that you can easily remove it, pluck it out with your finger.

**Step 4:** If the child is not breathing, follow step 3 with mouth-to-mouth breathing (*see Cardiac Pulmonary Resuscitation and Mouth-To-Mouth Breathing*).

**Step 5:** Keep repeating steps 1 to 4 till the child improves or you get some medical help.

**Helping An Older Child With Choking**

Stand behind the child and wrap your arms around his waist. Make a fist with one hand and grasp it with other hand. Put your fisted hand on the upper abdomen just below the breastbone of his chest. Then press into his abdomen with a
sudden springy upward jerk. You may have to do this repeatedly (upto a dozen times) for him to bring up the foreign object (see illustration).

As before, mouth-to-mouth breathing may be required if the child is not breathing.

The Heimlich Manoeuvre
It is now thought that the Heimlich Manoeuvre is too difficult for most people to perform on an unconscious person. The new guidelines say that chest compressions provide the same effect as the Heimlich abdominal thrusts. It’s also no longer necessary to do a finger sweep of the victim’s mouth to clear airway obstructions. Chest compressions alone should be enough to expel anything lodged in the airway.

★ CIRCUMCISION
Circumcision refers to the cutting off of the foreskin of the penis. The foreskin or prepuce covers the glans or the soft front portion of the penis.

Helping an infant with choking
Helping an older child with choking
Circumcision may be done:
- For religious reasons
- For any complication
- For no definite reason

The foreskin is normally adhered to the glans penis in most newborns. If nothing is done, it separates on its own by the age of 3 or so, in almost all cases. Therefore, instruct people at home not to make any attempt to retract the foreskin. If it is still adhered, you may yourself try to gently push the foreskin behind and clean any stuff between the skin and glans penis.

If no separation of the foreskin is noticed by the age of 4 years, consult a paediatric surgeon.

**Do not circumcise because the child has a long foreskin or is wetting the bed or has ballooning of the foreskin while passing urine, but has no other problem.**

Some reports indicate that circumcision reduces the overall incidence of urinary tract infections. Circumcision should be considered if a child with an adhered prepuce gets repeated attacks of urinary infection in the absence of any proven obstruction in the urinary tract.

If proper attention is not given to treat a severe diaper rash, secondary bacterial infection may result in scarring of the foreskin. This may result in the foreskin getting permanently adhered to the glans penis. In such cases, circumcision has to be undertaken because spontaneous retraction is not going to take place. It is also mooted that cancer of the penis in males and cancer of the cervix in wives of circumcised males is less common. An editorial in the reputed *British Medical Journal* has refuted this view.

Some advocate circumcision from a hygienic point of view. This is not tenable because smegma (the cheesy material
which collects between the foreskin and glans) can be removed daily while having a bath.

If the skin is forcibly retracted, you may find it difficult to bring it back to its original place and the penis gets swollen. Your doctor can set it right but if it recurs, he may advise circumcision. The operation may also be advised for pus collection behind the prepuce.

People who believe circumcision should be done as a routine minor operation do not realise that even this operation can cause infections, excessive bleeding and other problems. I am against routine circumcision. If religious reasons dictate circumcision, get it done by a reputed doctor. Defer the operation to a later date if the baby was premature or had some complication at birth.

Do Not Circumcise In Case Of Hypospadias
Paediatric surgeons warn against circumcision in hypospadias, a condition in which the opening of the urinary passage is on the undersurface of the penis. In these male infants, the urethra (urinary tube) is deficient and circumcision must be categorically avoided as the excess foreskin on the penis is used to construct the deficient urethra. The penis bears a neatly circumcised look after this operation.

CLEFT LIP AND PALATE
Cleft of the lip with or without cleft of the palate is a common birth defect. With surgery, these defects can be closed with good cosmetic effect.

The cleft lip is operated upon when the baby is about 3 months of age. Some plastic surgeons operating on these children follow a ‘rule of 10s’ to decide when to operate. They like the child to be at least 10 weeks of age, weigh 10 pounds (about 4.5 kg.) and have a haemoglobin of 10 grams per cent. The child should not have any infection.
Surgery for cleft palate is usually undertaken between the ages of 1 and 2 years. Dr. K. S. Goleria, Plastic Surgeon at the Jaslok Hospital and Research Centre, Mumbai, operates cleft lip and cleft palate simultaneously with good results at 11 months of age.

These babies can be breastfed, though their mothers may need extra support. Most babies with only cleft lip (without cleft palate) have no difficulty in breastfeeding. The mother should offer enough of the breast into the baby’s mouth for the breast to close over the cleft so that he can suckle well. The idea is to help the mother use her areola (dark portion of the breast behind the nipple) to fill in the defect and form a seal.

Suckling is more difficult in the presence of a cleft palate. The baby may seem to choke sometimes, or milk may leak through the nose. The baby may choke less if the mother holds her baby in a more upright position while breastfeeding. If the baby is not able to manage direct suckling in one position, the mother should try feeding in a different position. One such position is called ‘the modified football-hold position’. In this position, the mother sits up on a bed. She makes the baby sit upright opposite her breast, with his legs along her side and his feet at her back. She holds his head in her hand to offer the breast and uses her other arm to support his back. A pillow kept under the baby’s bottom may be found to be helpful.

Direct suckling may not work with some babies. The milk should then be expressed and given to the baby in a cup or with a dropper (or by a tube) until the baby is able to suckle well enough at the breast. It has been found that irrespective of the mode of feeding, babies with cleft lip tend to gain weight rather slowly.

After surgery for cleft lip, some surgeons allow direct suckling from the breast as soon as the baby leaves the recovery room. They believe that, unlike bottle-feeding, the
soft breast does not damage the stitches. In any case, there is no need to stop direct suckling for more than a few hours. If direct suckling is delayed for any reason, the mother should keep expressing her milk every 3 hours. This milk can be given to the baby with a cup or a bondla (paladai).

Breastfeeding is now recommended even in the second year of a child’s life. So after the child recovers from surgery for cleft lip, direct breastfeeding can be started again in a week or so.

Some children who are operated for cleft lip may need another operation later on. After surgery, children with cleft lip and palate may need the help of a speech therapist and an orthodontist, under the guidance of a paediatrician.

**COMMON COLD**
Colds are very common. Some children can become very restless with a cold. So we shall discuss the subject at length. But before we do that, please note:

- No antibiotic helps in common cold because it is a viral infection.
- Drugs containing phenylpropanolamine and antihistamines (anti-allergy medicines) are harmful in common cold.
- Opening of the nasal passage is all that is needed if the nose gets blocked.

**Accept Cold As An Unavoidable Nuisance**
Many different viruses (over 200) can give rise to colds. If your child is exposed to one today, he may get a cold due to another virus after a month or two. In this process, he may have developed immunity against the first virus. Thus, your child, through the half dozen or more colds he may get per year, develops immunity against some of these infective agents. That is why some people like to refer to the nuisance
of colds as a lifelong insurance for the future. Colds become less frequent after the age of 2 to 3 years.

However, colds can cause discomfort to a child, especially a smaller baby below the age of 2 months. If his nose gets blocked because of a cold, he will find it difficult to suckle. As he is not used to breathing through the mouth, he will become restless if the nose is blocked, even if he is not feeding. In such cases, urgent steps, as discussed hereafter, are to be taken to clear the nasal passage.

In infants below 2 months, the cold may, more rarely, be due to a bacterial infection. The baby may also have high fever. Such infants may need antibiotics. When the cold is accompanied by fever, paracetamol, as discussed in the section of fever (in the chapter on HOME REMEDIES) can be used.

In the first few weeks, the baby may have little mucus-like secretion in the nose. You may notice bubbles in his nose as he breathes. It does not cause any problem, but if you feel that the baby has difficulty feeding, you may consider cleaning the nose as described below.

A running nose can also be due to allergy. As with the common cold, the child has a thin watery discharge from the nose. In both, the onset is marked by a few sneezes. But in an allergy, the sneezing becomes persistent unless the agent that caused the allergy is removed or antihistamines are given. Allergic ‘cold’ is also seen most often during certain seasons of the year, or on getting up in the morning (due to an allergen in the bedroom) or when the child is exposed to the agent causing the allergy. A constant watery discharge from the nose, throughout the month, is likely to be due to allergy.

Typically, the cough due to a cold is noticed during sleep. If the child is lying on his back, the watery discharge from the back of his nose drips down the throat. Nature does not want this stuff to go into the windpipe and a protective mechanism
makes the child cough with the post-nasal drip. Such a child will sleep better on his stomach (however, making a small infant sleep on his stomach is not considered safe).

**Taking Care Of A Blocked Nose**

If the nose is not too blocked, your child, especially if he is older, may not be bothered. Otherwise, a blocked nose needs help. The best tool for this is a rubber syringe (also called a nose cleaner), available at most departmental stores and chemists. It consists of a rubber bulb, shaped like an ancient rubber horn. To this is attached a nozzle which can also be boiled. To use it, press the rubber bulb, keep it pressed, put the nozzle’s tip into the baby’s nose, and then release the bulb. The mucus gets sucked into the nozzle. Clean the nozzle. Boil it before using it again. If this tool is not available, you can also use a 5 or 10 ml. syringe without a needle for the same purpose.

If the nose still appears blocked, use saline nose drops. These can be prepared at home. Add 1/4 teaspoon of salt to a glass of warm water (about 200 ml.). To use these drops effectively, let your child lie down. Turn his head to one side — say the right side. Put 2 drops into the right nostril. Let the head be kept on the same side for a minute or two. Then repeat the same procedure for the left side. Instead of a dropper, you can also make a cotton wick. Dip it into this water-salt solution. Roll the wick inside the child’s nostril to clear the mucus and to open the nose. If the tip of the wick touches the back of the nose, he may also sneeze, expelling some of the mucus.

Cleaning the nose is specially needed before sleep and before feeding a baby. Though saline drops are the safest, even these should be avoided unless the blocked nose is bothering the child. Take recourse to readymade nose drops only if the saline nose drops are not helping, and the child is in real discomfort. But make sure that you buy those that are...
meant strictly for use in children. Generally, these nose drops are to be avoided because, after opening the nasal passage for a while, they cause increased congestion due to what is called a rebound phenomenon.

There are also medicines — oral decongestants — to open the blocked nose. Avoid these as they may have side effects.

Sometimes, a humid atmosphere can be helpful. If you have a hot water shower in your bathroom, turn it on for about 15 minutes, at the hottest setting. Keep the child with you, at a distance from the shower.

Do not apply a vaporub to the nose or on the chest. Some children get a rash with it. Others may have a shock-like reaction if the medicine is applied directly to the nose. Petroleum jelly or Vaseline may be applied to the outer edge of nostrils chapped by repeated blowing and wiping.

If the child has a thick secretion blocking the nostril, take a wick of cotton, moisten it in the saline water as mentioned above and let this moistened wick be used to soften the secretions. Then use the syringe and the saline drops. An older child can blow the mucus out. But he should not blow too hard; otherwise he may get an earache.

Make sure that the child has enough liquids. Fluids, especially warm ones, help to thin nasal secretions and loosen phlegm. Older children may be given warm water with lemon and honey to soothe a sore throat. If the child has lost his appetite, do not force him to eat. An exclusively breastfed baby does not need any extra fluids.

**Use Of Antihistamines**

Some doctors use antihistamines to dry up secretions. This is not advisable. The watery secretions are helping the virus to get out (as in a case of diarrhoea). So we should not act against Nature’s helpful mechanism.
Treatment For Sore Throat Or Irritation In The Throat

Encourage older children to do hot salt-water gargles.

Rest

All patients with a bad cold, children as well as adults, need rest — both for themselves, as well as to protect others. It may not be a bad idea to put up a notice for visitors outside the room of your newborn baby, which says, ‘If you have a cold, please do not enter’. If it is practical, even Dad and other members of the family with a cold should stay away from the baby. Please do not, however, start giving masks to others or put one on your face to protect the baby. Continue nursing your breastfed baby if you have a cold. All those who happen to handle a child with a cold at home or in a nursery school must wash their hands to prevent its spread to others.

Some people believe that overwork, anxiety and sudden variations of temperature (for example, if you suddenly bring a child into an air-conditioned room after he was in the hot sun outside) may trigger a cold which you might have otherwise prevented with the help of your well-tuned immune system. I feel that there is some truth in this.

Others also believe that Vitamin C helps to prevent and treat a cold. I agree with those who say that fresh fruits are good for a person for several scientifically-proved reasons. So let your child have enough of fruits or fruit juices. Ignore the myth that fruit juices worsen a cold. Any food, including a fruit, should be avoided only if you are sure that the child is allergic to that particular food.

I would recommend a daily bath if your child with a cold wants it. If not, I advise a sponge with slightly warm water.

Children who eat chicken may be given hot chicken soup to sip. It has also been found helpful in clearing nasal mucus, as compared to sipping hot water.
When Do You Need Antibiotics For A Cold?
If your child or infant has persistent thick, yellow or green discharge from the nose, he may need an antibiotic. But remember that before your child recovers from a cold, the thin nasal discharge often normally becomes thick, green or yellow. This does not require antibiotics. It is the persistent discharge lasting for 7 to 10 days that needs attention. Let your doctor decide about the use of antibiotics.

Consult Your Doctor…
If your child with a cold
- Has a persistent thick nasal discharge
- Has rapid breathing (more than 50 breaths per minute)
- Is wheezing
- Gets an acute earache
- Is refusing to eat or drink and passes little urine

Do remember that all ‘noisy breathing’ is not due to wheezing. When air passes through a partially blocked nose, you may notice noisy breathing, while your doctor finds that the chest of the child is completely clear and the sounds conducted from above were giving a false impression that the chest is congested.

If your child has a persistent discharge from one side of the nose, then also you should see your doctor, especially if the discharge is foul smelling or mixed with blood. It may be due to a foreign body or due to a rare condition like diphtheria.

★ CONGENITAL HEART DISEASE (see page 473-483)
★ CONSTIPATION
Abnormally infrequent and difficult passage of motions is not common in children, but can be quite troublesome when it does happen. A child may pass hard motions because of which he may get fissures or cuts near the anus. These can be very
painful. The child starts thinking that the passage of motions causes pain. He then purposely starts withholding his stools. In consequence, the stools become drier and firmer, making it more difficult for the child to evacuate. Soon, a vicious cycle starts. Sometimes, the child soils his underclothes when liquid waste leaks around the solid waste.

**Normal Infrequent Motions**

Some exclusively breastfed babies pass normal motions once every 2 to 3 days and sometimes even less frequently. The motions are never hard. This is normal and requires no treatment.

**TREATMENT:** Eating sufficient fruits, vegetables, sprouts, whole grains and fluids helps in the prevention as well as the treatment of constipation. Regular bowel habits and a relaxed pace for morning routines also helps to avoid constipation.

A glass of water on getting up in the morning is helpful. Warm water with a teaspoon of honey is preferable. Many children may get a normal urge to pass a motion after that. Others may get used to passing the motion after drinking milk or after breakfast. The child should be relaxed while sitting in the toilet. A younger child may be encouraged to sit for about 15 minutes. He can be engaged by the mother or others with something interesting like a toy or a book or a puzzle. If he does not evacuate, he should not be forced to do so.

The diet should have more of fibre in the form of fruits like figs (fresh as well as dry), raisins, plums, apricots and prunes; vegetables, especially raw and leafy vegetables, peas and beans, sprouts, whole wheat flour *chapatis* and bread, unpolished rice, and enough liquids.

Foods that should be omitted or reduced include white bread, bakery goods, milk, butter, cream, cheese, ripe banana, nuts, popcorn, sausages, sweet potatoes, spaghetti, macaroni...
and noodles. Avoid giving the child milk products since they can depress the activity of the colon. Cow and buffalo milk can also cause milk allergy and anal fissures which may cause chronic constipation via stool avoidance. Soya-based milk may be tried in such cases.

Although medicines can be helpful, do not medicate without consulting your doctor. Bisacodyl suppository (available as Dulcolax), 5 mg. for under-twos and 10 mg. for children over 2, may be used. It should be inserted at the same time each day, preferably after a meal. Use it daily for a month, 2 times a week in the next month and then once a week for 3 months.

In severe cases, hospitalisation may be needed to manage the child and also to investigate for some other rare causes like congenital megacolon (Hirschsprung Disease) and hypothyroidism that can give rise to constipation.

CONVULSIONS OR FITS OR SEIZURES

In simple terms, a convulsion or a fit refers to abnormal involuntary movement(s) of the body with or without disturbed consciousness. The movements can involve almost the whole body or just the finger or any other part of the body. Unconsciousness may be prolonged or may be momentary and take the form of a stare.

Most causes of convulsions are not serious and disappear as the child grows older. A few types may need medication for 2 years or more.

MANAGEMENT OF A CONVULSION: Step 1: As a prolonged convulsion can affect the brain, it makes sense to control it. Fortunately, most convulsions last a minute or two and stop on their own. Usually, a drug (diazepam or phenytoin) is injected into the vein of the child to stop the convulsion. Sometimes, a different drug may be injected into the muscles.
You must not give the child anything by mouth while he is having a convulsion.

If your child has a tendency to get convulsions, especially with high fever, your doctor may advise rectal administration of diazepam. It is quite effective if used soon after the child is found to have fever. Diazepam by mouth has also been found to be helpful to prevent convulsions with fever. It is also to be started with the onset of fever. However, rectal administration is more effective than oral.

Do not panic when your child has continuous convulsions. It is no use making the child smell a shoe or onions. If he is still convulsing, put a spoon wrapped in a piece of cloth in between his teeth to prevent him biting his tongue. Let him lie with his head a little lower than his body and turn him to one side to prevent aspiration of any vomit. (Do not lower the head if there is history of head injury prior to the onset of the convulsion). It is no use holding the child to stop the convulsion. Only make sure that he does not hurt himself. If you find that his skin and lips are turning blue and he has stopped breathing, start mouth-to-mouth breathing.

Step 2: Note the condition of the child after the convulsion has stopped or after the effect of the medicine given to control the convulsion has worn off.

A child may normally sleep for some time after a fit. If he looks perfectly normal after the fit, we are probably dealing with a less serious cause of convulsion, for which hospitalisation is not needed. However, a child with convulsion following a recent head injury often needs observation in a hospital. In any case, let your doctor take the final decision about hospitalisation.

A child who does not look well after a convulsion or in between two convulsions needs extra attention.
Step 3: Find out the cause of the convulsion and treat it. A child who had a difficult birth or who has a deficiency of glucose or calcium in his system may get a convulsion. One out of 4 children with a sudden rise of fever may get a short-duration fit between the ages of 6 months and 5 years. These are called febrile convulsions. Some infants and toddlers may hold their breath and some of these may also get a fit following a bout of crying. Treatment with iron is found to be effective in reducing the incidence of breath-holding spells in some children.

A few serious causes of convulsions are cerebral malaria, meningitis, encephalitis, poisoning, brain tumour and head injury. In some cases, the cause of convulsion cannot be determined and your doctor may make a diagnosis of epilepsy. If he suspects this diagnosis, he may ask for an EEG (electroencephalogram) and decide to put the child on a drug for prolonged use to control the convulsions. Certain drugs require a blood test to rule out any possible side effect or to know if the dose of the drug being given is optimum. For certain types of convulsions, your doctor may ask for other tests including a CT scan of the brain and a lumbar puncture (spinal tap) to examine the CSF (cerebro-spinal fluid). For intractable convulsions that don’t respond to drugs, a part of the brain is removed with good results.

A few newborns and older children get a convulsion once and never again. Hence, it is important not to panic if your child gets a convulsion. However, as frequent convulsions can cause harm to the child, it is important to take fits seriously.

Seizures can also manifest as staring spells, mostly between the age of 5 and 12 years. Multiple attacks of such spells could lead to a decline in scholastic performance.

Some children get staring spells which are not due to epilepsy and do not need any treatment. They are considered non-epileptic when parents report preserved responsiveness.
to touch, though the child suffers no limb twitches, upward movement of eyes, interruption of play or urinary incontinence. However, confirmation is required in such children on long-term follow-up.

**In some children, videogames can induce seizure.** Stopping the child from playing videogames may be all that is required to halt the recurrence of convulsions, but some of these children may need long-term anti-convulsant drugs.

**Step 4:** Attend to psychosocial factors. Meet the school authorities. Tell them that your child is prone to fits. If required, take a letter from your doctor so that the teacher knows what to do if the child gets a fit in the classroom or on the playground. Children who suffer from epileptic fits can take part in sports like swimming, but under supervision. In general, they should be treated as normal children and not be overprotected.

**Cough**

Cough in children is often due to viral infections that affect the nose and throat. These settle down within a few days without causing any problem. Yet we cannot ignore the fact that 15% of deaths in India during infancy and from 1 to 5 years of age are due to infections of the respiratory system that includes the lungs.

**Six Important Facts To Be Kept In Mind If Your Child Has A Cough**

1. Call the doctor immediately if a child with a cough is breathing over 50 times a minute.
2. A child with a cough and cold should be encouraged to eat and to drink plenty of liquids. You can reduce the risk of respiratory infections by making sure that your baby is exclusively breastfed for about 6 months and continues breastfeeding after that.
3. A child with a cough and cold should be kept warm (not hot), in an environment free from cigarette smoke.

4. A good doctor helps you to find the cause of the cough and treats the same, and does not prescribe cough syrups and expectorants.

5. Cough per se is a helpful phenomenon. Do not try to unduly suppress it. If your child is breathing normally, coughs and colds can be treated at home without drugs.

6. Most medicines sold for cough and colds are useless and possibly harmful.

**Less Serious Causes**

- Cold
- Smoking
- Adenoids
- Habit of clearing the throat
- Sinus infection
- Attention–seeking device
- Tropical eosinophilia
- Measles
- Hay fever (see *Allergies*)

**Serious Causes**

- Pneumonia
- Bronchiolitis
- Asthma
- Tuberculosis
- Whooping cough
- Congenital heart disease
- Foreign body in the bronchi
- Tracheoesophageal fistula (rare)
- Croup

The above causes are discussed under individual headings.
Symptomatic Relief Of Cough

As mentioned earlier, cough is a helpful mechanism. Do not try to unduly suppress it without the advice of your doctor. Let your child drink plenty of liquids, including water. Steam is helpful (see Colds). For symptomatic relief of cough, extract the juice from a dozen or more leaves of the tulsi plant. Give a teaspoon of this juice mixed with honey or jaggery, 4 times a day. If the cough is very troublesome, make a mixture of equal quantities of honey, lime juice and brandy or gin and give ½ tsp. to 1 tsp. of this mixture 4 times a day. Avoid giving honey to smaller infants, and alcohol if the child has rapid breathing or if your religion forbids it.

CROUP

SYMPTOMS: The term ‘croup’ refers to an unusual type of hoarse cough. Doctors term it as ‘brassy’ or ‘croupy’ cough. It is often, though not always accompanied by stridor (noisy breathing), hoarseness of voice and difficult breathing.

CAUSES: Croup is due to an inflammation of the larynx (voice box) and trachea (windpipe). The inflammation may be due to a self-limiting viral infection, but also to a serious bacterial infection.

The common causes of croup are:

- Diphtheria involving the larynx (see Diphtheria)
- Spasmodic croup
- Acute laryngotracheobronchitis
- Epiglottitis

Spasmodic Croup

A croup without fever is not a serious disease, but can be very scary — both for the child as well as the parents. The disease usually affects children between 1 and 3 years of age.

SYMPTOMS: The child goes to bed normally and gets up suddenly with a barking cough and noisy breathing. He
appears very anxious. He has no fever. As the dawn sets in, the child appears normal. He may get similar attacks again.

The disease occurs due to a viral infection. Allergy and psychogenic factors may play some role. There may be a history of similar episodes in other members of the family.

TREATMENT: Steam inhalation is the best treatment. Sit with your child for about 20 minutes in the bathroom a little away from a hot shower or a bathtub or a big bucket filled with hot water. Let the child sit up till the doctor comes. Give him plenty of liquids, including water.

After the first attack, it is advisable to consult a doctor to rule out any serious disease.

**Acute Laryngotracheobronchitis**

This is also a viral infection.

SYMPTOMS: In this, fever is a prominent feature, besides the sudden appearance of croupy cough and noisy breathing. Unlike in spasmodic croup, the child’s condition rapidly deteriorates. The child appears extremely restless and scared.

TREATMENT: Show the child to a doctor and let him/her decide if hospitalisation is needed.

**Acute Epiglottitis**

Acute epiglottitis is a bacterial infection. It is the most serious type of croup and needs urgent attention. It affects the lid covering the trachea (epiglottis).

SYMPTOMS: Besides the symptoms mentioned above, the child has difficulty swallowing and drools. Within a few minutes or hours, the condition may worsen. Breathing may become very difficult. The child may become blue or even unconscious.

TREATMENT: Children affected need hospitalisation and are given oxygen, intravenous fluids and antibiotics.
CRYING

Crying In A Small Child Who Looks Sick
Such a child should be shown to a doctor. He may have an infection like an earache, a cold with a blocked nose, a flu-like illness with headache and body ache, a chest infection like bronchiolitis or infection of the meninges and raised intracranial pressure due to a tumour. The crying may also be due to abdominal pain. These conditions are discussed under their respective headings.

Crying In A Child Who Appears Otherwise All Right
Hunger remains one of the commonest causes of crying. Even a toddler may cry for this reason. But all crying is not due to hunger. If in doubt, feed the child. Otherwise, look for other possible causes.

A child may cry because he is feeling hot or cold, or has a wet nappy, or wants to be picked up and cuddled or shown things in the home or has been overstimulated by adults around him or is just feeling tired. Some small babies quieten as soon as they are wrapped up in a sheet or blanket.

Other causes of crying are pain at the site of an injection or a child having been hit by an older sibling. Do not leave the latter alone with the baby again, but also do not punish him.

Infantile Colic
Babies may also have sudden bouts of crying for no apparent reason. The onset of these bouts is usually between the age of 2 and 4 weeks. They can occur at any time of the day or night but are more common after about 6.00 in the evening. The baby suddenly starts crying. Nothing seems to work. The child screams at the top of his voice, draws his thighs and legs towards his abdomen, may pass some gas or have a distended abdomen.
abdomen. Colicky cries are slightly shorter than those caused by hunger.

These attacks usually stop by the time the child is 3 months old, and are termed evening colic or 3 months’ colic. Highest rates of infantile colic are seen in babies of older first-time mothers with non-manual occupations and more years of education. Whether the rate of colic is actually higher or whether such mothers are more likely to report the problem is not yet clear.

MANAGEMENT: Don’t allow the child to cry unnecessarily. If a child keeps crying, he swallows more air, which probably makes him cry more because of anger and distension of the abdomen. Do not hesitate to pick him up for fear of spoiling him. A small child’s need has to be met — be it for food or more human contact. Make the child feel secure, loved and wanted. You will have enough time to discipline him later.

Children can cry because of habit. Even small infants can take advantage of our ‘goodness’. So if the child was playing on his own, you do not have to pick him up or talk to him. If he suddenly starts crying while you are in the kitchen, you need not leave everything behind and rush to him, unless you hear an unusual cry. Attend to what you are doing, then go to pick him up and meet his need. You do not have to be unduly apologetic for the delay. An older child can learn to manipulate, if you or other relatives let him have his way all the time (see Sleep And Sleep Problems).

Although it has not been proven that certain foods eaten by a breastfeeding mother can upset her baby, it may be worth omitting milk, egg, fish, peanuts and peanut butter, soya preparations, wheat, caffeine, garlic, onion and cabbage from your diet for a few days. If you find a marked improvement in the child, you can again try and introduce these food items in turn and see if you can find a correlation between any particular food and colic in your baby.
Also try:

- The colic positions - put baby on his tummy across your knees; hold him against your chest, or hold him on his tummy across your forearm with his legs on either side of your arm.

- Rocking him with or without soft music in the background.

- Sharing his care with someone else. Never shake a baby vigorously in anger or irritation — you may damage his eyes as well as his brain. Let someone else handle him if you are feeling exhausted.

- Dicyclomine if your doctor advises it, but not too often. If elders at home recommend a home remedy, it may be worth trying it after you have cleared it with your doctor. I do not recommend the routine use of drugs, or gripe waters or ‘digestive’ medicines. I am against the use of pacifiers. A crying child needs our attention and not a pacifier. A pacifier also interferes with successful breastfeeding. It is also a possible source of infection.

- Half a teaspoon of sugar water. It has been found to have a pain-relieving effect on colic. Sugar water given before a minor painful procedure like a skin prick has also been found to be helpful. Given a minute before the procedure, it not only reduces the duration of crying, if any, but also reduces the increased heart rate induced by pain. The sugar water seems to do this by some sort of morphine effect, because any benefit of sugar water is negated if the infant is also given naloxone — an antimorphine drug.

★ CUTS

MANAGEMENT: Step 1: Stop the bleeding if there is any. Apply pressure on the site with a clean cloth. Sterile gauze
available in packets with the chemist is preferable. Keep pressing at the site for at least five minutes. If the bleeding recurs, press again. Most bleeds can be stopped by this simple method. If the bleeding is not severe, wash your hands with soap and water before touching the child.

**Step 2:** Remove any dirt or other foreign material like pieces of glass from the wound. Dirt can lead to infection and pus formation. Before doing that, wash your hands and wash the skin around the wound with boiled and cooled water. Then clean the wound with some water. Avoid using soap as it can damage the tissues. If boiled water is not available, place the part under running tap water or pour water from a glass or flush the wound with water from a syringe.

**Step 3:** Dress the wound with sterile gauze or a clean cloth after bringing the edges of the wound together. If any antibiotic ointment like neosporin or soframycin is available, put it on the wound before applying the gauze. Keep it in place with a clean cloth or bandage. Do not tie the bandage too tightly. Change it as soon as it is wet or becomes dirty. Check the wound daily and change the gauze piece. After a few days, a scab will be formed and the dressing can be removed. If the gauze or bandage gets stuck to the wound, pour water on it (preferably boiled and cooled) to facilitate easy removal.

**Step 4:** Stitches may be required if the edges of the wound cannot be brought together, if the wound is deep or is more than half an inch long. Let your doctor decide. If you think that stitches may be needed, it is better to see your doctor within 8 hours of the injury.

**Step 5:** If a booster dose of DPT or DT is due and the child is around the age of 2 or 5 years, give one shot of DPT or DT. If he is around 10 years, give an injection of tetanus toxoid. If your child has received his immunisations in time, he does not need an extra dose of tetanus toxoid.
Step 6: If bleeding continues in spite of pressure on the cut, seek medical attention (see Bleeding).

★ DENGUE FEVER
CAUSE: Dengue fever is not common, but it can spread fast. This viral disease is spread by the daytime biting Aides mosquito. The Aides mosquito is an indoor breeder that thrives on clean, stagnant water in storage containers, coolers and flower vases.

SYMPTOMS: In infants and toddlers, the disease presents like any other viral illness with fever lasting up to 5 days, running of the nose, a mild cough and congestion of the throat.

Older children may have more annoying symptoms. The incubation period of the disease is 1 to 7 days. There is a sudden onset of high fever with severe headache and pain in the muscles or joints. The child may get a rash during the first day or two of fever. The child then develops a marked loss of appetite. This may be associated with nausea, vomiting and enlargement of the glands in different parts of the body. The fever may last for about a week, only to reappear again after a day or two. The second episode of fever is rather mild. Severe weakness during the illness and also after recovery is quite characteristic.

Most children recover without much of a problem. A few children may develop a bleeding tendency that can be fatal if left untreated.

TREATMENT: No antibiotic is helpful in this disease. Aspirin should never be given, as it can increase the bleeding tendency. The child only needs rest, frequent small meals, paracetamol and sponging to relieve pain and bring down the high fever. However, hospitalisation is a must if the disease reaches the dengue haemorrhagic fever (DHF) stage with bleeding manifestations, enlargement of the liver and low count of platelets in the blood.
THE A - Z OF CHILDHOOD ILLNESSES

PREVENTION: All coolers not in use should be kept dry. Water in flower vases should be changed frequently. Water storage containers should be covered with tight-fitting lids. To avoid getting bitten by mosquitoes, see Bites And Stings.

★ DIABETES MELLITUS
This disease in children is also called juvenile diabetes. A few points relating to it need to be stressed:

• Children often have Type 1 diabetes, inherited from both parents. If either of them do not have the disease or do not carry the genes for diabetes (as seen in the family history), then their children are not likely to get the disease. On the other hand, if one child has juvenile diabetes, there is a possibility that your other child may also get it.
• This type of diabetes is almost always treated with insulin injections.
• With proper management, almost normal growth and activity of the diabetic child can be assured.
• If not properly managed, the child can go into coma and later in life develop complications affecting his eyes, kidney, heart and nerves.
• The disease is less common in breastfed children.

SYMPTOMS: Although it can affect even infants, generally the onset of the disease is around 5 years of age. The child drinks a lot more water, passes urine more often, may start wetting his bed or clothes, eats more than usual but still does not gain weight, or even starts losing weight. There may be a history of vomiting, pain in the abdomen, dehydration and the need to admit the child to a hospital.

In some children, the disease presents for the first time with severe pain in the abdomen, vomiting and drowsiness. If not treated, the child may lapse into unconsciousness.

A family history of diabetes in a brother or sister of the child or a history of diabetes in both the parents or their
elders should further make one suspect diabetes. If there are such symptoms, your doctor will ask for a urine and blood test to confirm the diagnosis.

TREATMENT: Depending on the condition of your child, the doctor may decide if the child needs hospitalisation. Once the diagnosis is confirmed, he will start with injections of insulin.

It is important to keep a check on your child’s sugar levels because less sugar (due to an excessive dose of insulin) as well as high blood sugar can lead to unconsciousness. Your doctor will teach you what to do if such a situation arises.

Diet as well as exercise are important. The diet should not vary too much in amount on different days. Your doctor will advise you on a healthy diet, as well as healthy snacks like peanuts and other nuts, chuna and fruits.

Your child can take part in competitive sports as well, under your doctor’s advice.

Mood disturbances are not uncommon in this condition. A child may suddenly become withdrawn or depressed. Do not hesitate to seek expert help in such a situation.

★ DIARRHOEA, DYSENTERY AND DEHYDRATION
Diarrhoea can present as:
• Acute watery diarrhoea (discussed at length in the chapter on HOME REMEDIES).
• Dysentery presenting as diarrhoea with blood and or mucus (see Bacillary Dysentery in Abdominal Pain).

★ DIPHTHERIA
Diphtheria is not commonly seen these days in children coming from higher socio-economic groups and among those who have received the injections of DPT (triple antigen) vaccine at regular intervals.

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SYMPTOMS: Diphtheria mostly affects the throat, larynx (the voice box) and the nasal passage.

Following a day or two of low-grade fever, the child complains of a sore throat. Examination of the throat reveals a dirty white or greyish membrane extending from the tonsils and throat to the palate. Glands below the jaw may swell up. Swelling of the neck may also occur. The child has difficulty in swallowing. If the larynx is also involved, hoarseness of voice and noisy breathing is noticed.

TREATMENT: Once the diagnosis is suspected, your doctor will get a throat swab examined by a pathologist and accordingly begin treatment.

★ DOWN’S SYNDROME

All children with Down’s Syndrome (DS) show developmental delays, but less than 5% of individuals with DS are severely to profoundly retarded.

Most such children have a very pleasing personality and get along well with the people they come into contact with. They are able to look after themselves, most can learn to read and are capable of attending a regular school, provided they are given special educational help. About 90% of individuals with DS are capable of working in a supportive employment setting.

SYMPTOMS: Your doctor may suspect the condition at birth. Children with DS have a few typical features like almond-shaped eyes slanting upwards, a fold of skin at the junction of the eye and the nose, a single transverse crease of the palm, a relatively large tongue, generalised hypotonia (limpness) and some other features. A heart defect may also be present.

You may suspect DS because the child may have difficulty in suckling at the breast and may be slow in learning new skills when compared to his siblings or other children. The
diagnosis is confirmed by doing a blood test, which reveals abnormality of the chromosomes in the child.

While it is true that the risk of getting a child with Down’s Syndrome increases with rising maternal age, only 3.5% of Down’s births occur to women aged over 35 years. So younger women can also get a child with this syndrome.

MANAGEMENT: With loving care and training, most of these children can learn many skills under a programme for early intervention. Your doctor will refer your child for such training. Drugs will not be of any help unless the child has proven deficiency of the thyroid hormone or has an infection (Down’s Syndrome children are more prone to infections than normal children). Those having a heart disease may or may not require surgery. At times, congenital abnormalities of the intestinal tract may also need attention.

In case you decide to have another child, certain tests during pregnancy can guide you as to whether your second child could be affected by the same condition or not. Fortunately, all the children with Down’s Syndrome that I have seen so far have had a normal sibling. But the possibility that the second child may also be affected does arise.

★ EARACHE, EAR INFECTIONS AND DEAFNESS
COMMON CAUSES:

- Middle ear infection (Otitis Media).
- External ear canal infection (Otitis Externa)
- A foreign body
- Toothache

Middle Ear Infection
Take middle ear infections seriously because recurrent ear infections can lead to deafness. As the brain is situated near the ear, infection from the ear can spread to the meninges
covering the brain, leading to meningitis. Deafness at an early age can also hinder your child’s speech development.

SYMPTOMS: The child has a cold for a few days. He wakes with high fever one night, crying and rubbing his ear. He remains restless throughout the night. The next morning, pus is discharged from the ear, after which he stops crying.

In some cases of ear infection, hearing is only temporarily reduced and usually returns to normal after the infection is brought under control. Sometimes, a fluid may remain behind the eardrum even after a cold. This is clear fluid. In 30% of the cases, this also gets absorbed spontaneously within about 2 months.

TREATMENT: The mainstay of treatment of the middle ear infection is antibiotics, given by mouth in proper doses for 10 days. No eardrops should be put in the ear; the ear should be kept dry to help heal the perforation of the eardrum through which pus had come out. To dry the ear, clean the pus nearer the ear lobe with clean linen. To dry the inside of the ear canal, insert a small wick made from new newspaper into the ear and let it soak up the pus. Keep changing the wick every 2 minutes till the ear looks clean and dry. Do this 3 times a day. The child should not be allowed to go swimming till he recovers from the ear infection.

Consider the child’s nutrition if he gets recurrent ear infections. Your doctor may decide to put the child on some long-term antibiotics. If symptoms suggestive of enlarged adenoids are present, removal of the adenoids may be considered.

Similarly, if the fluid behind the eardrum persists for a prolonged period, you may be offered tiny tubes (tympanostomy tubes) to be put in the eardrum to keep draining the middle ear. Doctors are divided on whether
these tubes (also called gromet) give definite benefit or not. In older children, a wait-and-watch strategy may be adopted, because we can easily assess if the hearing is improving or not. In infants and toddlers, the decision sometimes tilts in favour of using these tubes because prolonged hearing loss can affect development of speech around this age.

External Ear Canal Infection (Otitis Externa)
CAUSES: The earwax present normally in our ear protects the external canal against moisture and germs. Putting anything inside the ear can result in irritation of the skin and removal of the normal wax, which can predispose the child to infection. Swimming can also result in otitis externa in some children.

SYMPTOMS: In this condition, the child does not have a cough or cold but complains of earache or points towards his ear. The child does not look too sick. On examination, the ear canal may look red and we may notice a small boil inside, which may burst, discharging a small amount of pus. Except for severe cases, there is no severe pain or high fever. Itching and mild pain are common features.

TREATMENT: Most cases of otitis externa get better on their own. Antibiotic drops may sometimes be required, and only rarely are antibiotics given by mouth. Do not allow swimming for 8 to 10 days.

Foreign Body In The Ear
An insect or a grain or other foreign object may be lodged in the child’s ear.

MANAGEMENT: In the case of an insect, do not try and remove it until you have put a few drops of warm coconut oil into the ear. If it does not come out easily, flush it out with warm (boiled and cooled) water filled in a syringe (without a needle).
With a grain or any other foreign body lodged in the ear, remove it if you can easily do it. Take the child to a doctor if you are unable to do this. If this is not possible, try to flush it out with a syringe filled with warm saline water. Flushing with water should not be undertaken if the child has had otitis media in the recent past.

**Hard Wax**

As mentioned above, the ear is normally lined with a thin layer of wax, which protects it from germs and moisture. Sometimes, this layer of wax can harden and cause earache or even deafness.

**TREATMENT:** Consult your doctor about the wax. If that is not possible, put 3 drops of coconut oil inside the ear at night for 3 nights. As the wax softens, flush it out with warm water and a syringe as detailed above. Repeat this several times. Stop immediately, however, if the child complains of pain or dizziness.

**Deafness**

If there is any doubt about the hearing of your infant, you must consult the doctor as soon as possible. If there is a family history of deafness, screening of your newborn can be done to rule out congenital deafness. In selected cases of childhood deafness, the hearing can be remarkably improved with the help of cochlear implants.

**★ ELECTRIC SHOCK**

Prevention of accidents due to electric appliances has been explored under the chapter on PREVENTION OF ACCIDENTS. Here we shall deal with what to do in case an accident does take place.

**MANAGEMENT:** **Step 1:** Switch off the power or pull out the plug. If this is not possible, remove the wire from the child with any piece of wood. If that is not handy, roll
up a magazine or use a jacket or a rope. Never use your bare hands.

**Step 2:** If the child is alert and has no burns, just hug him.

**Step 3:** If burns are visible, visit your doctor to have the wounds dressed and also to rule out damage to any internal organs.

**Step 4:** In case of severe burns or damage to the organs, the child may need to be hospitalised.

**Step 5:** In extreme cases, the child can have cardiopulmonary arrest. His heart stops beating and the child stops breathing. In that case, do not waste a moment. Start mouth-to-mouth breathing discussed under that heading.

**Step 6:** Some children can get severe convulsions with resultant injuries, including fracture of the spine. Such children should be handled carefully and shifted to the hospital under careful medical supervision.

★ ENCEPHALITIS

Encephalitis refers to the inflammation of the brain, which may manifest as a mild illness, or may result in severe dysfunctioning of the brain, causing death or permanent disability.

**SYMPTOMS:** The onset is usually sudden, with high fever, persistent headache and vomiting. However, a temporary headache with high fever or a few vomits at the onset can be associated with any fever, so all children with such symptoms should not be thought of as having encephalitis. Later, the child may start having convulsions, develop mental confusion or become unconscious. Paralysis of the eye muscles, blindness and speech disturbances may develop. In some mosquito-borne cases of encephalitis, the clinical features of encephalitis may be associated with severe joint pains and a bleeding tendency.
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TREATMENT: Children with encephalitis need hospitalisation. There is no specific treatment available. The child is given full support in the hope that he will come out of it on his own. Those suffering from encephalitis due to herpes simplex infection may benefit from an expensive drug named acyclovir.

PREVENTION: As mosquitoes can carry the disease, adequate steps may be taken to protect the child from mosquito bites.

★ EYE PROBLEMS

Squint
A transitory squint in newborn babies is common and does not need any treatment. Children with a fold of skin between the eye and nose (epicanthic fold) or with a wide bridge of the nose and increased distance between the two pupils may falsely appear to have a squint. However, a true squint must be attended to immediately or it may lead to permanent blindness. An eye specialist should be consulted and his advice followed. Sometimes, the child just needs glasses. At times, a squint may follow a serious head injury or a tumour of the eye. Sometimes, surgical correction may be required.

Refractive Errors Needing Glasses
Every child should be subjected to an eye check-up before joining school to ascertain if he has a squint or needs glasses.

Infections Of The Eye
Watering of the eye in a newborn without sticky eyes or pus-like discharge from the eye is usually due to blockage of the tear duct connecting the eye to the nose. This is not due to any infection and generally stops spontaneously before the child is 6 months old. If you notice a pus-like discharge from the eye, your doctor will teach you how to massage the area
between the eye and the nose and advise some eye drops to be put after cleaning the eye with warm water. If watering persists after 6 months, an eye specialist should be seen. He may submit the child to a minor procedure to open the tear duct. This is quite effective.

Redness of the eye or sticky discharge from the eye could be due to a bacterial or viral infection. If the redness is coupled with severe itching in the eye, the cause could be an allergy. Do not use an antibiotic or cortisone eye drops without consulting your doctor.

In a newborn with conjunctivitis, you can safely instil a drop or two of breast milk into the eye, 4 to 5 times a day. It does help in some cases. If you are in a place where no doctor is available, you may use an antibiotic eye ointment for conjunctivitis, but make sure that it does not contain any corticosteroid. If not indicated, medicines containing cortisone can be harmful. In persistent cases, your doctor may send an eye swab to the laboratory to ascertain the causative organisms and prescribe an antibiotic by mouth.

In rare cases, tuberculosis can manifest in the eye as ‘phlyctenular conjunctivitis’. In this condition, a pimple-like spot is seen on the outer side of the cornea. Thin blood vessels are seen radiating from this spot. Further investigations are needed to confirm this.

If conjunctivitis suddenly starts affecting a large number of people in the community, it is mostly due to a virus infection of the eye. It is highly infectious and may be prevented by immediate hand washing after touching a patient and by keeping separate hand towels. Antibiotics are of no use because of the viral origin. If the redness persists, see a doctor who may prescribe antibiotic eye drops or an ointment if required. The antibiotic should only be put in the affected eye every hour or two while the child is awake. This is advised because the medicine is
quickly washed out with the watering of the eye. Unaffected members of the family should not use the medicine.

**Eye Injuries**

The commonest injury to the eye is caused by a small foreign body like a grain of sand getting stuck to the conjunctiva covering the white of the eye, or the lids. Wash the eyes with plenty of water. If it does not come out, take a wick made from cotton, moisten it and clean the speck from the conjunctiva. If you cannot see it and the eye is irritated and watering profusely, the speck may be stuck under the upper lid. To turn this lid up, ask the child to look down. Put a matchstick (or use the finger of one hand) over the lid. Catch the eyelashes of the upper lid with your thumb and index finger and quickly turn the lid up over the stick. The foreign substance is generally seen on the upper lid below the eyelashes. Remove it with moist cotton or the corner of a clean piece of cloth.

If some chemical has gone into the eye, keep washing the eye with water till you see a doctor.

If the eye has been punched and the child cannot see (ignore the transitory loss of vision after an injury), see the doctor as soon as possible. If the child’s vision is not affected, put an eye ointment into the eye, ask the child to gently close the eye and put a thick pack of gauze on it and keep it in place with leucoplast or a bandage till you see your doctor.

If the foreign substance is over the cornea (the cornea covers the pupil and the coloured portion of the eye called the iris), do not try to remove it yourself. Let the doctor handle it.

**Problems Of The Eyelids**

A boil-like painful swelling near the eyelid is due to a stye (hordeolum). There may be more than one stye. Hot water
fomentation thrice a day with application of an antibiotic eye ointment after the fomentation clears the infection. The use of an ointment must be continued for another 3 or 4 days even after the stye subsides.

A stye should be differentiated from a chalazion that results in a firm, non-painful swelling in the lid. It can disappear on its own, but may also require simple surgery.

Sometimes, the margin of the eyelid presents with persistent itchy scales that stick together during sleep. The eyelid should be gently cleaned with warm water and the scales removed. Then apply an antibiotic eye ointment. This condition, called blephritis, tends to recur. Occasionally, local application of corticosteroids is needed.

**Congenital Ptosis**

This condition refers to drooping of the upper eyelid, and could be familial. It needs surgical correction. Mild ptosis is operated upon before the child joins regular school. Ptosis that interferes with vision should be corrected earlier as per the advice of an eye specialist.

**Night Blindness**

Inability to see properly in the dark may be the first indication of Vitamin A deficiency. It is easily cured by a diet rich in Vitamin A and the use of Vitamin A. If ignored, it can lead to severe damage to the eye and permanent blindness. Prevention is possible by breastfeeding the baby (preferably for 2 years) and giving him dark green leafy vegetables and red or yellow fruits and vegetables. Some of these children may also have associated roundworm infestation that should be treated as well.

**FEARS**

- Although fears are normal in children, strong and irrational fears — termed phobias — can interfere with a child’s normal activities.
An infant is usually fearful of strange faces, loud noises, animals, a dark room and pain. A 6-month-old infant can differentiate between known and unknown faces, but is not able to understand that the unknown faces may not pose any threat to him. After about the age of 2, most children start accepting unfamiliar people without any fear.

School children are afraid of death, darkness, animals, high places, thunderstorms, lightning and kidnappers.

MANAGEMENT: Make sure nobody laughs or makes fun of a fearful child. Help him get over the fears by providing support. Hold the child's hand in a dark place. If he is afraid of, say snakes, let him first see pictures of snakes. Let him then see someone holding a non-poisonous snake. Let the child then touch it if he is willing.

Gandhiji was taught by his maid to recite God's name (Rama) whenever he felt fearful of the dark. You may consider this approach.

If your child is phobic, consider taking the help of a counsellor.

**FOOT PROBLEMS**

**Flat Foot**

Normally, the foot has an arch. Children are said to have flat feet if this arch is not evident. However, infants normally have a pad of fat that hides the arch. Additionally, young children's feet have very flexible bones and joints. So the feet of such children flatten when they stand, even though you can see the arch if you lift them on their toes.

Many children are given special shoes for 'flat feet'. Most such children have normal feet that look apparently flat during infancy and the preschool age. If doubt about this condition persists after 3 years, do see an orthopaedic surgeon.
Rigid Foot
In the case of a rigid foot, which cannot be moved up and
down or side to side at the ankle or in the presence of a really
tight Achilles tendon, your doctor may like to show the child
to an orthopaedic surgeon.

Toeing-In and Club Foot
If the feet of a child are turned inwards but have normal
movement at the ankle joints, they need no treatment. It may
be due to a particular position of the baby while he was in the
mother’s womb. This condition returns to normal by about
6 months of age. If the toeing-in persists or if it appears rigid,
the child may have a condition called ‘club foot’ (congenital
talipes equinovarus). This may need an orthopaedic opinion.
Such children need repeated plastering. Sometimes, surgery
is also indicated.

Shoes
Although shoes are a necessary evil in the urban world, it is
an accepted fact that people who remain barefoot have
stronger and more flexible feet compared to those who wear
shoes. They also have fewer problems with their feet. So
allow your child the joy of walking and running barefoot on
safe ground as much as possible.

When you must buy shoes, do not go for fancy, expensive
ones. Shoes are only meant to protect your small child from
injury and cold. Of course, as he grows older, your child will
like to have a smart pair of shoes. Buy him smart ones, but
make sure that they are comfortable. Buy shoes later in the
day when the feet are likely to be a little heavier than in the
morning. The shoe should be a little larger than the exact size
of your child’s foot. Keep a margin of about 2 centimetres, but
make sure that the shoe does not come off as the child runs or
walks. Shoes that have become tight should no longer be
used.
Shoes should be flat and flexible. For teenagers, cushioned soles may be preferred. Avoid high heels as far as possible. Wide shoes are better than pointed ones. Leather or canvas shoes without plastic material are good for your child’s feet.

**GERMAN MEASLES (RUBELLA)**

The disease is more common in school going children. The child is infectious from a few days before the rash appears, to a week thereafter.

German measles can be serious in a pregnant woman. All women of reproductive age should be familiar with this disease. When German measles affects a pregnant woman, her baby may develop certain deformities, specially if she acquires the infection in the first 3 months of pregnancy. As the deformities may be serious (involving the brain, eyes and heart), all pregnant women should stay away from a known case of German measles.

If you are pregnant and have come in contact with a patient who has had an illness with fever and rash, but you are not sure if it is German measles, the best thing for you would be to speak to your doctor. He may order you to have blood tests to confirm. At times, the blood test needs to be repeated. If your doctor concludes that you have been recently infected with German measles, he may suggest an abortion. As mentioned earlier, the risk to the baby is greater if the infection takes place in the first 3 months of pregnancy. You should then discuss the issue with the doctor along with your husband and then decide whether or not to have an abortion.

SYMPTOMS: A typical case of German measles presents with fever, rash and painful glands in the neck. The fever is not very high. The rash is also not so severe as in measles. The distinctive feature is the enlargement of the glands
behind the ears and the back of the head and neck, which feel tender to the touch. The total illness lasts about 5 days. The rash starts with the face and then spreads downwards to disappear within 2 to 3 days.

TREATMENT: Treatment is often not required. If fever bothers the child, he may be given paracetamol. The important precaution that parents must take is to restrict the movements of the child having German measles so that he does not come in contact with a pregnant woman.

PREVENTION: MMR vaccine (against measles, mumps and rubella or German measles) is available. It is quite effective and can be given after the age of 1 year. If your child has been given the measles vaccine around the age of 9 months, MMR vaccine is to be given around 15 months of age. Rubella vaccine may also be repeated at puberty.

If a woman of reproductive age receives the rubella vaccine without realising that she was pregnant, no abortion need be suggested. Studies of such cases do not show any congenital abnormality in the baby.

★ GLANDS IN THE NECK AND ELSEWHERE

Lymph glands, like fever, help us fight infection.

SYMPTOMS: Tiny pea-sized glands may be seen behind or in front of the neck, and also in other parts of the body like the groin and armpits in young children. They are not painful or tender. The child is otherwise well. These glands do not increase in size but, once noticed, remain for months without causing any harm to the child. They are often secondary to a minor infection in the head, arms or legs. Your doctor will probably ask for no tests in such a case and will just reassure you. More notice is to be taken if glands are suddenly observed in different parts of the body in a younger infant, especially if he also looks pale and sickly.
Serious attention also needs to be given if there is rapid enlargement of a gland or glands, or if a 'big pea-sized' or a still bigger gland remains persistently enlarged.

**Common Causes**
- Local cause
- Systemic illness

**Local Causes**
A sore throat due to a viral or bacterial infection, or infection of the teeth and gums can cause enlargement of the glands in front of the neck. Infection of the scalp over the head like boils and infection secondary to scratching due to lice, dandruff or chickenpox can cause swollen glands behind the neck. Small tender glands in this region can also be seen in viral infections like German measles and big non-tender glands due to glandular fever (also called Infectious Mononucleosis).

Glands in the armpits and groin can be enlarged due to a local infection (injury, boils, cat scratch or chickenpox).

A gland just above the collarbone should be taken more seriously. It could be due to an infection in the lungs and more rarely due to a tumour in the chest. Sometimes, it can follow vaccination with BCG.

Tuberculosis can also present as a glandular swelling in different parts of the body. In tuberculosis, there is a significant enlargement of the gland. The swelling often gets adhered to the overlying skin. Sometimes, more than one gland is enlarged in the same region and these glands appear to get matted (stuck) to each other.

**Systemic Illness**
Viral infections accompanied by a rash (German measles, glandular fever) can result in enlargement of glands in different parts of the body.
Tuberculosis can present as a localised glandular swelling or as a more generalised disease.

**Rare Causes**

Malignant disorders like leukaemia and lymphomas and infections like AIDS are to be kept in mind in any persistent glandular swelling, especially if associated with unexplained fever, severe anaemia, tenderness in the bones, and bleeding from any part of the body.

**MANAGEMENT:** In any persistent or significant enlargement of glands, your doctor will probably ask for a blood test, a skin test (Mantoux Test), and a chest X-ray. If required, an ultrasonography of the abdomen may be asked for. If no definite cause is found, a biopsy of the gland may have to be undertaken.

Most glands secondary to local causes or glands due to viral infections get better on their own. Sometimes, antibiotics may be required to treat the local cause. Occasionally, the gland becomes severely inflamed with redness being noticed on the overlying skin. It is painful and the child has fever. Besides antibiotics, such children may need hot fomentation and even surgery.

**HEADACHE**

A headache can be serious if:

- The child has persistent headache without any obvious cause or following a head injury.
- The headache is associated with persistent vomiting, squinting, loss of balance or disturbed consciousness.
- The headache is followed by convulsions or by loss of consciousness.
- The headache is severe at onset.
- The child has headaches whose character and frequency have changed.
SYMPTOMS: While the older child will be able to tell you he has a headache, smaller ones may be fretful or bang their heads persistently. However, occasional banging of the head in a toddler is often behaviour-related.

Common Causes

Common Infections
Viral or bacterial infections can cause a headache. Usually, the child also has fever and body ache. Paracetamol relieves this type of headache for a couple of hours till the child recovers from the infection. The child is otherwise alert. He may be an obvious case of a viral cold with running nose or a bacterial infection like acute tonsillitis.

Psychogenic Factors And Fatigue
School going children under undue stress, sleep deprivation and emotional disturbances can have frequent headaches.

Eyestrain
A child complaining of headache towards the end of the day may need his eyes to be checked.

Sinus Infection
In persistent infection of the sinuses (hollows present in our bones nearer the nose), the headache is typically noticed on waking up.

Migraine
Repetitive stereotype headaches are usually not due to serious causes like a brain tumour. One such example of a relatively benign condition is migraine.

If there is a family history of migraine, this condition should especially be considered. While adults often have a headache that affects one half of the head, children may complain of a generalised headache in migraine. A few precipitating factors are stress, bright sunlight, cheese, chocolates, chilled food,
cold drinks, ice cream and nuts. The attacks of headache are often associated with nausea or vomiting. The child is perfectly all right between attacks.

Migraine aura (which precedes an attack of migraine) without headache has also been found in some children. In this condition, the child has distortion of visual image, frequently consisting of things looking smaller than they are (micropsia), or seeing bright lights, or the appearance of distortion of body image (the Alice in Wonderland Syndrome). A positive personal history or family history of classical migraine in such cases may clinch the diagnosis.

Head Injury
A persistent headache following a history of head injury should not be ignored. Most vomiting after mild head injury is said to be related to migraine, but a persistent headache or vomiting could be related directly to the head injury.

Meningitis
Fever, a fixed gaze, or disturbed consciousness should raise the possibility of a diagnosis of meningitis.

A small infant may have a bulging anterior fontanelle (the soft spot on the head). Neck stiffness is present in most cases of meningitis.

Brain Tumour
A persistent headache, lasting day and night, could be due to a brain tumour. Associated features like persistent vomiting, squint, loss of balance, convulsions and disturbed consciousness add to the suspicion of a brain tumour or any other space-occupying lesion in the brain.

Headaches due to migraine may be preceded by blurring of vision followed by vomiting. This should not be construed as suggestive of a brain tumour.

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High Blood Pressure
This is a rare cause of headache.

TREATMENT: In routine cases, take the child in your lap and press his head gently. If he does not object, apply a little balm on his temples. Paracetamol may also be given. Ibuprofen has been found to be more effective than paracetamol in headaches due to migraine.

Attend to any emotional factors. Make sure he has food at regular intervals, Hunger can add to the problem. Check his hours of sleep. Exercise has been found to help fight migraine by improving blood flow to the brain, by boosting blood levels of brain chemicals that suppress pain, and by conferring a general feeling of relaxation and well-being. However, sudden and vigorous exercise should be avoided. It may actually trigger or aggravate an attack.

For temporary headaches associated with fever, paracetamol and treatment of the infection with suitable drugs, if required, should be enough.

For a persistent complaint, specially associated with other worrying symptoms mentioned earlier, take your child to the doctor soon so that the proper diagnosis can be made at an early stage.

★ HEAD INJURY
Although it is natural to become tense when a child hurts his head, most head injuries (at times even serious-looking ones) pass off without any complication.

It is important to watch the child closely after a head injury. If he looks alright to you after the injury, there is no need to panic.

If he is normal even after 48 hours of the accident, the risk to your child is almost nil. The accident was probably meant to help him learn some lesson for the future.
However, make a note of the date and time of the head injury in the child’s personal file or diary for any future reference.

You Need To Take Action In The Following Conditions:

- Persistent vomiting
- Persistent lack of alertness, drowsiness or unconsciousness
- Inability to move any part of the body
- An unsteady gait
- Persistent backache
- Convulsions
- Eye changes resulting in squint, double vision, etc.
- Difficult breathing
- Bleeding from the nose or ear

Concussion Versus Compression

In a condition called concussion, the whole brain is shaken after the head is hit hard. The child becomes unconscious for a brief period and becomes normal within a few minutes. He may also complain of slight headache, nausea and giddiness and have one or two bouts of vomiting. Such cases should not cause anxiety.

Compression of the brain, on the other hand, can be serious. The real problem arises if there is swelling of the brain and the injury leads to compression of the brain due to bleeding between the skull and the brain. This may cause the worrying symptoms mentioned above. If you’re anxious about the way your child looks, consult your doctor immediately or take the child to the casualty department of a nearby hospital.

First Aid

While you are waiting for your doctor, attend to any external injury. If you notice any bump on the head, it is due to external bleeding between the scalp and the skull. Apply gentle pressure with ice in a hand towel or any piece of cloth for 15 to 20 minutes. If there is a cut on the scalp, attend to it
as advised under the section on Cuts. If you suspect that the child might have also injured his neck, do not move him; wait for your doctor or the ambulance to arrive and let the experts carry the child safely to the hospital. Careless handling of a child with injury to the neck can result in serious damage to the spinal cord.

Hospitalisation And Tests
Let your doctor decide if X-rays of the skull or a brain scan are needed. If the soft spot (anterior fontanelle) in a small infant is open, doctors may decide to go for a simpler procedure called sonography of the head.

Most cases of head injury need neither hospitalisation nor any X-rays. Observation of the child, in most cases for a day or two at home or in the hospital, and examination by your doctor are all that is required. But if one or more of the serious symptoms given above are present, do not delay matters and let the doctor decide the right course of action for your child.

Vigorous Shaking Of The Child Can Be Dangerous
Mention may be made here of the possibility of a rare injury to the brain and eyes following vigorous shaking of the child. This can happen if an angry parent takes recourse to this method to stop a small child crying continuously. Always allow your spouse, family or friends to share the care of a colicky child with you so that you are not stressed too much.

HEPATITIS
★ Most cases of hepatitis or inflammation of the liver are due to viral agents (Hepatitis A, B, C, and E virus).

CAUSES: Hepatitis A and E are due to infection by the oral route. The other two are caused by infection due to an infected needle or blood and also through sexual intercourse. A mother having hepatitis B can also pass it on to her
newborn through the placenta. Tattooing and ear piercing can also expose people to infection with the hepatitis B virus.

SYMPTOMS: The usual onset is with loss of appetite and vomiting. Fever may or may not be present. The child then develops high-coloured urine and yellow eyes. The jaundice deepens. The skin also becomes yellow. After about 2 weeks of the onset, the appetite starts returning, the urine colour becomes lighter and the child usually recovers after a total duration of about 3 weeks.

Your doctor may ask for a urine examination and some blood tests specially to rule out hepatitis B.

Complications with hepatitis A and E are not common. But hepatitis B and C can lead to liver failure or persistent infection and even carcinoma of the liver.

TREATMENT: There is no specific treatment for hepatitis. The child is advised rest at home till the jaundice clears and the appetite returns to normal.

Some doctors place unnecessary dietary restrictions, but I believe that in routine cases, a child who is allowed to eat what he likes recovers faster. Such a child is less likely to feel weak. If the child is not hungry, encourage him to have fruit and rice preparations. If he is vomiting, give him small feeds at more frequent intervals. Drugs for vomiting should be avoided. If vomiting is severe, intravenous fluids may be needed.

Sugarcane juice is not essential. In fact, we have seen children getting new infections from this juice if it is bought from outside. If you are very keen about cane sugar, let the child chew on a piece of sugarcane. Similarly, drinks enriched with glucose are not required.

In case of fever, try to avoid drugs. Even a relatively safe drug like paracetamol can be harmful for the liver. Sponging with slightly warm water may be resorted to. Liver tonics are
not required. Any Vitamin B complex preparation may be given for a month.

If the child has much itching, apply calamine lotion on the skin. Your doctor may also prescribe some oral medication.

**HYDROCEPHALUS**

The term ‘hydrocephalus’ refers to a condition in which there is abnormal accumulation of cerebrospinal fluid, within the brain.

SYMPTOMS: This condition is suspected if the child’s head appears to be much bigger than those of other children his age. Keep in mind that some children have a biggish head, which is normal. If in doubt, however, consult your doctor.

MANAGEMENT: After examination, the doctor may measure the head circumference at intervals to see if the growth is more rapid than normal. If so, he may decide to get the child investigated. A sonography of the head or a CT scan may confirm, or rule out, the diagnosis of hydrocephalus.

With surgery, the child can have a normal life. Untreated children can develop complications like convulsions and mental retardation. In some cases, the condition can arrest spontaneously.

**HYPERTENSION (HIGH BLOOD PRESSURE)**

Contrary to popular belief, even children can get hypertension, though this is not common. Sometimes, a wrong diagnosis is made if the blood pressure is measured with a cuff of smaller-than-normal size. The cuff is wrapped around the arm of the child to measure the pressure. Also if the child is excited, the higher pressure must be confirmed by taking a few more readings.

SYMPTOMS: Usually, hypertension is accidentally discovered when the child is examined for a routine check-up. Of course, it can also present with symptoms typical of
disorders of the kidney, heart, central nervous system and endocrine system. Thus, the child may have blood in the urine, breathlessness on exertion, visual disturbances, headaches or even a stroke.

MANAGEMENT:

- Confirmation of raised pressure by frequent blood pressure readings in a relaxed atmosphere.
- Investigations to rule out the cause of hypertension and if proved, treatment prescribed for the same.
- If the cause is not found, a diagnosis of essential hypertension is made.
- If the child is overweight, all efforts are made to regulate the child’s diet and to see that he takes active part in sports or other forms of exercise.
- Salt is restricted in the diet. Canned and fast foods are to be avoided as they have a high amount of salt or fat.
- If your doctor decides that the child should have long term medication for keeping the blood pressure in check, do follow the advice seriously because high blood pressure, if not treated, can cause complications with damage to the blood vessels of the eyes, kidney and brain. It can also lead to heart failure.

HYPOSPADIAS

In this condition, the opening of the urinary passage is on the under surface of the penis. Besides, there is usually a downward bending or curvature of the penis. In severe degrees of hypospadias, the opening of the urethra may be at the junction of the penis and scrotum, or even further backwards, on the scrotum or in front of the anus. In such cases, the scrotum may be divided by a deep cleft into two parts (bifid scrotum). If, in addition, one or both the testes are missing from the scrotum, the surgeon will have to determine the sex of the child as it may be an ‘intersex’ condition.
THE A - Z OF CHILDHOOD ILLNESSES

TREATMENT: Hypospadias can be corrected surgically, either in a single surgery or in 2 stages, depending on the surgeon. An average hospital stay of 10 days is necessary. The ideal age for surgery is between 8 and 18 months.

Circumcision should be categorically avoided in babies with hypospadias as the excess foreskin heaped on the penis is used to construct the deficient urethra.

All the procedures should be completed before the child starts attending school.

★ INFLUENZA (FLU)

Influenza is a viral infection that spreads rapidly from one person to another. This disease is seen more often during the winters. The patient having flu is infectious to others from the day before the onset of symptoms until the time he recovers from fever and other symptoms.

SYMPTOMS: If more than one member of the family has body ache, headache, fever, nasal discharge, loss of appetite, severe weakness and an upset stomach, we are most likely dealing with flu.

TREATMENT: No antibiotics need be given. For relief of symptoms, paracetamol can be given every 4 to 6 hours. A child may be allowed to eat as per his inclination. In case of poor appetite, which is common during the illness, enough liquids including fruit juices, soups, coconut water and plain water should be given to ensure adequate urine output. For lowering the fever and also otherwise, sponging the whole body with a little warm water is very comforting.

The child should stay at home for a couple of days even after the fever settles, because flu can make a child feel very weak.

★ JAUNDICE

While most children getting jaundice recover without much of a problem, some of them may need serious attention.
Doctors get really concerned under the following circumstances:

- Jaundice appearing within 24 hours after birth.
- A child with jaundice who appears unusually sick, drowsy and anaemic or one who develops altered behaviour, or a bleeding tendency, or swelling of the body, or persistent vomiting with dehydration.

**Physiological Jaundice In A Newborn Baby**

Most jaundiced babies have what is known as normal or physiological jaundice. The jaundice normally appears after 30 hours of birth, gradually deepens and disappears on the 10th day. This happens due to slight immaturity of the baby’s liver. The child generally does not require any treatment. If the jaundice is severe, your doctor may like to rule out certain other causes of jaundice like an infection or rare causes like thyroid deficiency or galactosaemia — a rare inborn error of metabolism. Babies with galactosaemia are born with intolerance to galactose, one of the two sugars that make up the lactose present in milk.

The level of jaundice is known by estimating the level of serum bilirubin (the yellow pigment produced by the breakdown of red blood cells). In physiological jaundice, the bilirubin level usually does not exceed 20 mg./dl. In Indian and other Asian children, it may reach 25 mg./dl. without causing any problem to the child.

In case of high levels, your doctor may like to estimate the level of haemoglobin and may again test for bilirubin. A rise of 0.5 mg./dl. of bilirubin or more per hour or a falling haemoglobin level may need some intervention. Children who are born normally without any problem are usually quite safe, but those who are born prematurely or had lack of oxygen, low blood sugar or accumulation of acids in the body (acidoses) need extra care.
Some jaundiced babies are sleepy and may not suckle too well or too often.

MANAGEMENT: Frequent suckling is the best way to reduce the incidence of jaundice and to treat it as well. Bilirubin is present in large amounts in the meconium — the baby’s first stools. If the meconium is not cleared, the bilirubin gets reabsorbed into the baby’s system. Colostrum (the first breast milk) helps to clear meconium and thus assists in the prevention of jaundice. If your baby gets enough breast milk, it helps to clear early jaundice. Giving glucose water, plain water or other supplements does not help. Such drinks interfere with breastfeeding and can increase the jaundice.

The best way you can help your baby with jaundice is by breastfeeding him frequently, whenever he is hungry (demand feeding) during the day or at night. If he is unusually sleepy, try to stimulate him every 2 hours. If he does not oblige, report to your doctor who may ask you to express your milk and give it to the baby with a small glass or bondla (paladai) every 3 hours.

Late Onset Jaundice In A Newborn Baby
Sometimes, jaundice starts at the end of the first week of life in an otherwise healthy baby and may last up to 3 to 10 weeks of age. Often, this prolonged jaundice is not serious and is due to the presence of a harmless substance in the mother’s milk. That is why it is also sometimes labelled ‘breast milk jaundice’. It tends to recur in the next child. This jaundice is harmless and clears without any treatment. The baby continues to suckle well and gains weight normally. If the jaundice is very severe, especially if the baby looks unwell, your doctor may consider the possibility of the child having some other condition.

TREATMENT: The doctor may suggest temporary stoppage of breastfeeding to confirm the diagnosis of late
onset jaundice. This would bring down the levels quickly, but do not agree to this suggestion too readily. In such a situation, you have the following options:

- Express your milk. Boil it and give it to your baby by a bondla. Heating breast milk reduces the levels of bilirubin.
- Stop breastfeeding temporarily for 12 to 48 hours and give breast milk from another HIV-negative mother or from a breast milk bank*. Keep expressing your milk and discard it.
- Alternate artificial milk feeding and breastfeeding for 24 to 48 hours. I prefer this approach in anxious parents.
- Continue breastfeeding normally and give phototherapy (light therapy).
- Replace breastfeeding by artificial milk feeding for 12 to 48 hours while observing the reduction of bilirubin and the level of jaundice.

The moment the period of 12 to 48 hours is over, you must start breastfeeding normally again.

Very high levels of bilirubin can cause damage to the brain of a newborn baby. But no such damage has ever been reported due to late onset jaundice.

It is important to realise that even if a baby needs treatment (usually light therapy) for jaundice, you must continue to breastfeed your baby normally.

**Light Therapy**

Light therapy (phototherapy) is based on the principle that exposure of the skin to blue or fluorescent tube light, or

*Breast Milk Bank, C/o Head, Department of Neonatology, Lokmanya Tilak Municipal Medical College, Sion, Mumbai 400 022.
daylight, converts bilirubin in a manner that it can be eliminated more easily from the body.

The baby is put under the light without clothes, with his eyes covered to prevent damage. The light is kept approximately 45 ems. above the infant. To avoid undue separation from your baby, you can request the nursing staff to bring the phototherapy unit next to your bed. If that is not possible, you should keep going to where the unit is kept and breastfeed your baby whenever he is hungry. Remove the cover from the baby’s eyes while breastfeeding.

Some babies may get loose motions while under the lights. This is normal. Others become a little irritable to begin with. Some may develop the so-called ‘dehydration fever’ due to loss of water from the body. You may be tempted to give water to the baby for this reason. This should be avoided. Frequent breastfeeding will provide the required amount of fluids in most cases.

For daylight, do not draw the curtains in your room. Direct sunlight can cause sunburn. But keeping the baby in the sun at about 10 a.m. for about 10 minutes, where possible, is advisable. This also helps in conversion of pro-Vitamin D in the baby’s skin to Vitamin D.

**Jaundice Due To Blood Group Incompatibility**

Rh incompatibility and ABO incompatibility between the mother and the foetus can result in jaundice in the newborn baby.

Your doctor will get your blood tested during pregnancy to find out if you are Rh-negative. If so, your baby will be observed closely for appearance of jaundice and for the rate of rise of bilirubin and his level of haemoglobin. Your doctor may also give you a special injection within 24 to 72 hours after delivery to prevent any trouble to your next baby.
ABO incompatibility is a relatively milder disease. The common combination is an O group mother and A or B group foetus.

**Exchange Transfusion**

An exchange transfusion is undertaken mostly in Rh incompatibility if the haemoglobin estimation of the cord blood of the baby is low or his cord bilirubin is high, or if the bilirubin levels after birth cross the safe levels.

It may also have to be undertaken in certain other situations like a premature baby whose bilirubin levels rise rather rapidly or babies with jaundice who also have added problems like infection, low blood sugar, etc.

**Other Causes Of Jaundice In A Newborn Baby**

Infections in a newborn baby are rare. Conditions like hypothyroidism and galactosaemia can also cause jaundice in the newborn.

Any jaundice that persists for over two weeks may need detailed investigations. If the child has white stools, it may be due to the flow of bile being obstructed. Such a child needs the urgent attention of a paediatric surgeon.

**Jaundice In Older Children**

CAUSES: The two common causes of jaundice in older children are infections or drugs affecting the liver. Certain drugs given for tuberculosis and epilepsy can cause jaundice. The common infections causing jaundice are hepatitis and malaria. In malaria, the child with jaundice may have very low haemoglobin. He is often very anaemic and may need blood transfusion.

**JOINT DISORDERS**

Sprains affecting joints are discussed under *Bones, Joints And Muscle Injuries*. Limps and pain in the legs are also discussed under separate headings.
Here we shall discuss conditions giving rise to pain and swelling of the joints. These conditions are grouped under the heading of arthritis.

**Bacterial Infections**
Acute bacterial infection and tuberculosis can result in arthritis. Arthritis caused by acute bacterial infection is termed septic arthritis.

**SYMPTOMS**: It presents with sudden onset of fever (usually high) and painful swelling with restriction of joint movements. It usually affects the hip, knee or ankle joints.

In tuberculosis, the swelling may increase gradually and persist for days and weeks.

**TREATMENT**: Acute septic arthritis needs surgical opinion and treatment with intravenous antibiotics.

**Rheumatic Fever**
This gives rise to temporary swelling or pain in the joints. Involvement of joints due to this condition is discussed separately under **Rheumatic Fever**.

**Rheumatoid Arthritis**
Usually affecting preschool children or adolescents, this condition is discussed fully under **Rheumatoid Arthritis**.

**Haemophilia**
Children with clotting defects can also present with swelling of a joint. A history of bleeding tendency in the child or family history aids the diagnosis.

★ **KALA-AZAR**
Kala-azar is an infection due to the parasite that grows in the sandfly. The disease is more commonly seen in Bihar, West Bengal and Assam.
SYMPTOMS: Darkening of the skin, anaemia, fever, bleeding from the nose, enlargement of the liver and spleen, and malnutrition are the common features of this disease. If untreated, 80% to 90% of patients die.

TREATMENT: Drugs are now available for this serious disease. With treatment, majority of the patients recover completely.

LEPTOSPIROSIS

This is an infection caused by leptospira. The rat is the principal source of infection in humans. Infection takes place by direct contact with the urine or blood of an infected rat, or from contaminated water, soil or vegetables.

Leptospira commonly enter through a moist skin with cuts, or through a mucous membrane. After entering the bloodstream through the skin or mucous membranes, leptospira spread to all the patient’s organs.

SYMPTOMS: The onset is usually sudden with fever, chills, headache, severe pain in the muscles, redness of eyes, nausea, pain in the abdomen, and vomiting.

The patient may also develop jaundice and a bleeding tendency.

After a quiet asymptomatic period of 1 to 3 days, the child may again develop fever with symptoms suggestive of meningitis, involvement of the heart, liver damage and kidney failure.

Though many infected patients may not show any evidence of the disease, death can occur in severe cases. Certain blood tests, urine examination and an electrocardiogram help in reaching the diagnosis.

TREATMENT: Injections of penicillin may be lifesaving. The other drug that can also be used is tetracycline, but it should be avoided in children below the age of 8 years.
LIMP AND PAIN IN THE LEGS

Common Causes
Tight shoes, a nail or a stone in the shoe, painful glands in the groin, injury to the foot or lower limb with a cut, splinter, sprain or a fracture, growing pains, and a flu-like illness with pain in the limbs.

Uncommon Causes
Early polio, rheumatic fever, scurvy (due to Vitamin C deficiency), hip dislocation, slipped femoral epiphysis, transient synovitis of the hip, Perthes’ disease, infection of a joint with a viral or bacterial infection, and cerebral palsy.

Growing Pains (Leg Aches)
This is quite common. One out of 4 normal children complain of pain in the legs that lasts for months or years. The child feels better if the legs are pressed.

The pain is more marked at night while the child is lying in bed. He runs about normally during the day. It does not interfere with his normal activities. He has no limp. There is no localised swelling, warmth, or tenderness. The pain is rather diffused. The movements at the joints are normal.

We do not know the exact cause of this symptom. It may be a subconscious way for the child to demand more attention and more body contact from the parents.

The pain usually disappears by the time the child leaves school, though several mothers report that such aches continue even in adulthood.

Transient Synovitis Of The Hip
This is preceded by a minor viral cold or a minor injury. After a few days of rest, the limp disappears. It is usually seen between 2 and 7 years of age.
Perthes' Disease
This presents as in the above condition. An X-ray of the hip joint points to the diagnosis.

TREATMENT OF A LIMP: This will depend upon the cause. Most children with a limp attributed to the common causes listed before settle down without any treatment. In case of any doubt, it is important to show the child to your doctor for ruling out any condition that may need urgent attention.

★ MALARIA

Common Malaria (Plasmodium Vivax)
SYMPTOMS: A typical case presents with shivering and high fever, followed by sweating and fall in temperature. The fever comes on alternate days, and the child looks well in between. A history of a child living in an area where malaria is common or the child having returned from such an area aids the diagnosis. A blood test confirms the diagnosis. The patient may become anaemic and weak.

In another case, the fever may occur every day. Shivering or rigours may not be present. If no obvious cause of fever is to be found and your doctor finds your child has an enlarged spleen, he may like to rule out malaria.

DIAGNOSIS: It is important that the blood sample for malaria be taken before treatment is started. This test is not only important for the confirmation of the diagnosis, but also helps to ascertain the type of malaria, the precise treatment to be given immediately and to be followed later.

Falciparum Malaria
SYMPTOMS: Besides shivering and fever, a child with this type of malaria can become quite sick. He may start losing alertness, get convulsions and may become unconscious.
TREATMENT: Treat this condition as an emergency. Many lives are saved by appropriate treatment.

Tell your doctor if your child has G-6-PD deficiency (see Anaemia); children with this deficiency may react badly to some of the anti-malarial drugs.

PREVENTION: Cooperate with the public health authorities in the prevention of the spread of this disease.

The malaria mosquito can thrive on clean water, so make sure the water storage sources in your building or house are well cared for. In areas where malaria is common, care should be taken to prevent mosquito bites. Have automatic door closers and window netting installed if this is possible. In the near future, we may have mosquito nets that are impregnated with a medicine to repel mosquitoes.

Your doctor may put you on some drug(s) to be taken regularly once a week if you live in a malaria-infested area or you are going to visit such an area. However, some older children and adults may develop partial or complete immunity against the disease after living in a locality with malaria for a number of years, and do not need this continuous prophylactic (preventive) treatment. If, however, you live in an area where malaria is unknown, start giving your child the prophylactic medicines 2 weeks before you start your journey to a malaria area. The drug is to be given throughout the stay in that area and to be continued for 2 months after returning home.

Do not take these drugs without proper advice; indiscriminate use may result in the development of resistance to certain anti-malarial drugs.

★ MALNUTRITION (UNDERNUTRITION)

Although malnutrition can mean undernutrition, overnutrition (see Obesity), vitamin deficiency, iron deficiency, calcium deficiency and iodine deficiency, this section covers undernutrition.
A child is considered undernourished if he is below 80% of his expected weight. (See chapter on NORMAL GROWTH AND DEVELOPMENT).

We should be seriously concerned if the weight is below 65% of the expected weight, or if the child fails to gain weight in 3 successive months. Thus, a child whose expected weight is 10 kgs. and who weighs less than 8 kgs. is considered undernourished. If he is less than 6.5 kgs, I would be much more concerned and give extra attention to find the cause of his undernourishment.

**Normal Variations**

It bears repeating that a child who is much below his average weight, but is active, full of life, gains weight slowly but surely and does not fall ill too often, is not ill. I would observe him for a couple of months and look for other common causes of lower weight like the small size of his parents, low birth weight and failure to gain weight in the first few weeks of life from any cause which is rather difficult to be compensated later on.

**Common Causes Of Undernutrition:**

- Premature termination of breastfeeding
- Improper artificial feeding
- Delayed addition of complementary foods
- Infections like diarrhoea, urinary infection and tuberculosis and infestation with parasites
- Heart disease
- Emotional factors
- Diabetes
- Unknown cause — I refer to the few children I see every year who just refuse to gain adequate weight. Even detailed investigations fail to reveal the cause.

Fortunately, quite a few such children have become confident young men and women and are doing well in life.
The causes given above are common to all socio-economic groups, though less fortunate families will have children who remain undernourished because of common factors like poor purchasing capacity, lack of education, unsafe water supply, poor environmental sanitation and personal hygiene, coupled with certain wrong notions like starving a child with diarrhoea, undue restrictions of diet in jaundice, delayed addition of solids in a small infant, and giving infants dal water or thin soup containing very little energy.

TREATMENT: First, let your doctor confirm if the child is undernourished. Attend to his diet. The doctor may try to find out any possible cause that may be contributing to the undernutrition and treat the same. He/she may then follow the weight of the child on the same weighing scale to monitor the progress over a period of time.

★ MEASLES

SYMPTOMS: The diagnosis of measles is suspected in a child who has not received the measles vaccine and who, after coming in contact with a case of measles, develops fever, dry cough, running of the nose, and watering of the eyes.

The symptoms worsen as the days pass. After 3 to 4 days (a day before the rash appears), the child gets white spots, like grains of salt on a red surface (koplick spots) inside the cheek opposite the first and second upper molar teeth. The rash appears the next day, first on the hairline and then spreading downward, starting as fine, slightly raised spots, which may join together to give a patchy appearance. The fever shoots up to around 104°F.

The child looks quite ill and loses his appetite. He may not even want to have water. If he is breastfed, he may demand feeds more often. The fever continues for about 3 days after the appearance of the rash, which lasts for 5 to 8 days. After the rash fades, the skin may tend to peel off.
How To Differentiate Measles From Other Similar Illnesses

When a mother tells me that her child got a second attack of measles or he had measles after having received the measles vaccine, it is often a case of mistaken diagnosis. The child probably had or is now having a measles-like illness and not measles. One such illness is exanthem subitum or roseola infantum. This is also a viral infection in which the child gets high fever as in measles, but does not look too sick. There is hardly any cold or cough. After 3 days, the fever suddenly returns to normal to be followed the next day by a light red rash that is not raised from the skin. It spreads from the trunk or the face and then to the limbs and fades within a day. It may be noticed that in measles, the temperature rises as the rash appears and the fever continues for a few days more along with the rash. But in exanthem subitum, the fever returns to normal.

TREATMENT: There is no specific treatment. For cough, a homemade syrup of 2 parts of honey, one part of lime juice and tulsi (or ginger) juice is helpful. (Also see Cough).

A child can be given 1 to 2 teaspoons of this mixture 4 to 5 times a day.

Children with measles prefer to stay in the dark as bright light causes discomfort to the eyes.

For fever, sponging with slightly warm water can be done or paracetamol may be given. Daily sponging of the whole body is advisable. A bath with slightly warm water is also allowed.

Give the child the food he asks for; no food restrictions are necessary. Make sure he drinks enough fluids including juice, coconut water and plain water. Consult your doctor to rule out complications if your child refuses all foods and liquids and if he has fast breathing, earache, persistent headache, drowsiness or vomiting, or if the fever and cough persist after about 10 days.
Your child with measles is infectious to others from 1 to 2 days before the onset of illness to about 4 days after the rash appears. Keep him home from school and away from your other children. If the patient’s brother or sister has not had measles before, they should not be sent to school or any crowded place for 10 days. This is to prevent them infecting people they come in contact with.

★ MENINGITIS

This disease, which is fortunately not very common, affects the covering of our brain and spinal cord called the meninges. Pyogenic meningitis (due to pus-producing bacteria) and TB meningitis are the two important causes. A less serious cause is viral meningitis. Pyogenic meningitis often presents with an acute onset. Compared to that, TB meningitis has a slow, rather insidious onset.

Early diagnosis and treatment of this disease can save a life. Delay can be fatal or the child may be left with serious handicaps.

SYMPTOMS: The disease can affect newborn babies as well as older children. The child who was perfectly well develops a fever. Some of these children may have ear infection with pus-like discharge from the ear. The child goes off feeds (in newborns and younger infants, this may be the earliest symptom, even before the fever). He may be very irritable or listless. An older child may complain of persistent headache. He looks sickly and starts vomiting. Stiffness of the neck may be present. As the disease advances, he may appear drowsy, avoid light (photophobia), lie curled up to one side with his neck arched backwards, become unconscious and develop convulsions.

The soft spot in an infant (anterior fontanelle) often bulges and becomes tense. The child may become dehydrated through lack of intake of food, and vomiting.
TB meningitis shares all these features, except that they develop slowly over days or weeks.

TREATMENT: Hospitalisation is essential for the treatment of meningitis. If a suspicion of meningitis even passes through your mind once, consult your doctor. If he or she also suspects it, the diagnosis will be confirmed by examination of the CSF (cerebrospinal fluid) present between the meninges. This is removed from the back by putting a needle in between the two lower spinal vertebrae.

We have effective drugs for both pyogenic and TB meningitis. Most cases of viral meningitis, unless complicated by encephalitis, recover completely. With early treatment, those with pyogenic or TB meningitis often recover fully. This is true even in newborn babies, though they have a poorer prognosis as compared to older children.

MENINGOMYELOCELE

Due to a defect in the spine, the meninges (covering the spinal cord), and even the spinal cord may protrude and may present as a swelling over the spine. The spinal defect is called spina bifida. It is commonly present nearer the lower end of the spine. In meningocele, only the meninges come out. If the cord also protrudes along with the meninges as in meningomyelocele, the child may also have weakness of the lower limbs and loss of control of the bowel and bladder functions. Hydrocephalus is also a possible complication. If only the meninges are protruding, the outcome is much better.

TREATMENT: A child with any of these presentations should be urgently seen by a surgeon (preferably a paediatric surgeon or a neurosurgeon), who will decide if surgery is indicated. In very severe cases, the surgeon may discuss with the parents the poor long-term outcome in such cases and may avoid surgery.
MENSTRUAL PROBLEMS

The first menstruation or period begins somewhere between 10 and 16 years. If you notice signs of enlargement of the breasts, your daughter would probably have her first period 2 years after that. When you find that she is having a sudden increase in her weight and height, she can be expected to get her first period about a year later.

It is important to discuss the normal phase of growing up with your daughter. If you do not feel comfortable, let another responsible person — a doctor, a counsellor or a relative — discuss it with her.

A few months before the beginning of menstruation, girls may normally get a white discharge from the vagina. This is called ‘physiological leucorrhoea’ and does not need any treatment.

Absence Of Menstruation (Amenorrhea)

You should meet your doctor if your daughter has not started menstruating at 16 years of age or has missed her period after having started menstruating. It is possible that it may be a normal variation, but merits consultation.

In some families, periods are normally delayed to begin with. They are also delayed in thin girls who are otherwise normal, e.g. athletes or those who practise regular dancing. In athletes who run extensively, low hormone levels related to onset of menstruation are reported. The same is true of thin girls having a chronic disease, anorexia nervosa or malnutrition.

Delayed menstruation could also be due to certain drugs.

Take your daughter to see your doctor anyway as the cause may be different, requiring investigations and treatment.

Even pregnancy should be kept in mind.
Normal Irregularity Of Periods In The First Year Or So

The first couple of periods in a girl are usually not associated with the release of ova, the female egg. These periods can be normally irregular, scanty, prolonged or heavy. See your doctor in case of any doubt.

Discomfort During Menstruation

When your daughter starts menstruating, ask her how it is going. Remember that the periods that take place without ovulation (release of the female egg) are not painful. Do not tell her of the pain you might have had during menstruation; she may start complaining of pain due to psychological factors.

Even cycles with ovulation are not necessarily associated with pain. However, if pain occurs, you should see the doctor. If no disease is detected, the doctor may reassure your daughter and, if required, may give her a relatively safe drug called ibuprofen (400 mg. 3 times a day). Drugs containing analgin and aspirin should be avoided. The drug is started as soon as the periods begin and is discontinued when the pain stops. Girls who have regular exercise or those who take part in sports are less likely to have cramps before or during menstruation.

Mood Disturbances In Between Two Periods

Quite a few girls get a feeling of depression, headaches and cramps a week or two before the periods. If required, your doctor may prescribe ibuprofen. Most cases improve merely with reassurance, healthy diet and exercise. Tea, coffee, cola drinks, sugar and salt may be restricted.

Unexpected Bleeding From The Vagina

While bleeding from the vagina in a newborn and in an adolescent who is otherwise well is normal, bleeding in other children could be due to some disease, or a generalised
bleeding disorder, hormonal disturbance, precocious puberty occurring before the expected age, injury, a foreign body in the vagina, sexual abuse or even a tumour. Consult a doctor immediately.

★ MENTAL RETARDATION (MR)

A child is said to have mental retardation when he is of below average intelligence and has difficulty adjusting to his surroundings. However, just because a child is slow in learning certain skills does not always mean that he is mentally retarded. There is a normal variation in achieving the milestones of development. Some children are slow in picking up a particular skill, but are smart in all other respects. This could be normal. A child who is retarded is slow in almost all milestones of development.

Sometimes, lack of proper stimulus at the right age may also delay the process of development in an otherwise normal child. For example, some children who are brought up in institutions may be slow, but as soon as they are adopted, the loving stimulus provided by the adoptive parents helps them progress at an unbelievably rapid pace till they catch up with other children their age.

If you suspect that your child is slow in learning new skills, your doctor may like to see the child on a few occasions and then decide if he should be referred to a specialist for an expert opinion. The specialist does certain tests to assess the development of the child.

Your doctor may also find out if the child has any other handicaps like impaired hearing, visual defects, a specific learning disorder, attention deficit, cerebral palsy, etc. This is important to guide you in proper management of your child.

In some cases, the diagnosis of mental retardation can be made at birth. A child with all the features of Down’s Syndrome may be diagnosed at birth. In certain cases, it may
not be possible to suspect retardation at an early age. The handicap may be suspected later from observations by parents, grandparents, a caretaker or a schoolteacher.

**Guidelines For Parents Of Children With Mental Retardation**

**Do not feel guilty:** Most parents find it hard to believe and accept a diagnosis of mental retardation. Let guilt that you may have inadvertently caused the retardation not add to the burden of management. You may harm yourself, and your child may not get the care he deserves.

**Say to yourself:** ‘This child needed me and nobody else’. Accept that God gave you your child because he knew you would look after him like no one else.

**Be rational:** Don’t fall prey to misguided advice and the promise of quick cures. Be guided by your doctor.

**Do not overprotect your child:** Overprotection may unwittingly interfere with his growth and development.

**Do not ignore your spouse and your other child(ren):** Since your special child needs a lot of attention, your husband and other children may start feeling neglected. An understanding husband will respect your feelings and will support you, but you must not forget that he is also human and that your other children also need you.

**Involve your other children in the care of the special child:** No parent lives forever and your child may outlive you.

**Education and training are vital:** Let your child start getting help from experts in the field as soon as possible. Early intervention can make a lot of difference in the ultimate outcome. In some major cities, such expertise is available. If you can’t locate such a facility, go to the nearest medical college or teaching hospital for guidance.
A team of experts will first try to find the possible cause of the MR and then plan the management of your child. They will also discuss the ultimate prognosis and answer any queries that you have about the possibility of your future children getting affected.

**Consider getting your child admitted to a school for normal children:** Let the team of experts decide if your child should be admitted to a school for normal children.

**Do attend to the general health of the child:** Make sure your child gets a nourishing diet, proper exercise, enough sleep and a friendly environment. Avoid foods that will make him fat (see *Obesity*). Also make sure that he gets proper dental care. Some of these children may not chew their food well and extra sugar may cause caries of the teeth, as well as add to his weight.

**Drugs are often not helpful:** There is no ‘brain tonic’ that helps these children. However, the experts may prescribe some drug(s) for tackling certain specific problems.

**Prefer home care to care in an institution:** More and more people are coming to realise that special children are better looked after at home rather than in an institution. However, situations can arise when parents find it impossible to cope with a severely retarded child and institutionalised care may become necessary.

**Fear Of Sexual Abuse**
If you have a female child with MR, be extra careful about the possibility of the child being sexually abused. Avoid leaving the child alone with people who may take advantage of her handicap. Discuss the issues of contraception and menstruation with your doctor.

Discuss with family members and the doctor about whether getting the child’s uterus removed is an option, to save her
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the problem of menstruation and to avoid the danger of an unwanted pregnancy. Take a well-considered decision. Your daughter may need the operation, but parents who feel capable of managing their daughter may decide against it.

Genetic Counselling
In some cases of MR, there is a possibility that the next child may have a similar condition. Discuss this with your doctor. Sometimes, the help of a genetic counsellor is needed in such cases.

★ MOUTH TO MOUTH BREATHING (see Page 292).

★ MUMPS
SYMPTOMS: This disease may herald with a swelling below one or both ears. It is quite painful. The child may have pain while chewing or opening the mouth. He is likely to have had contact with a child having mumps. The swelling is because of the saliva-producing glands (parotid glands) and lasts for about 10 days. The illness often starts with fever, loss of appetite, nausea, vomiting, and headache to be followed with parotid swelling within a day. But some children may only have swelling of the gland. If the child has had the MMR (measles, mumps and rubella) vaccine in the past and swelling is noticed below the jawbone rather than the ears, the diagnosis may be different. Let your doctor decide. If the enlargement of the glands below the jawbone is due to throat infection, the doctor may offer the child antibiotics.

TREATMENT: Mumps does not need any treatment, except pain management. Paracetamol and soft foods (fruits, juices, soups, khichdi, curds) are advised.

Complications Of Mumps
Mumps can occasionally get complicated with involvement of the brain, testes and pancreas. A testicular involvement is seen only in adolescents and not in younger children. Consult
your doctor if a child with mumps gets acute pain in the abdomen, swelling of the scrotum, or starts behaving abnormally.

**Prevention Of Spread Of Mumps**

Mumps spreads fast. The patient is infectious from 1 or 2 days before the onset of illness and remains infectious until the parotid swelling disappears.

★ **NEPHROTIC SYNDROME**

This disease of the kidney generally affects preschool children.

SYMPTOMS: A typical case is of a child between 18 months and 5 years whose mother finds that he has swelling of the face, which is more marked on waking up in the morning. She then realises that he has not been his normal self lately and has been eating poorly. She also notices that the child is passing less urine and the swelling is increasing each day till his whole body is swollen. The doctor gets his urine and blood examined and finds large amounts of protein in the urine with corresponding decrease of protein in the blood.

With treatment, almost all children with this disease improve dramatically. Unfortunately, even with the best possible treatment, relapses are very common. Most patients, however, do get cured after one or more attacks.

**TREATMENT:** Although we are not sure of the cause of this disease, almost all children with nephrotic syndrome are given corticosteroids with excellent response. New drugs are also sometimes prescribed. If the swelling is marked, drugs (diuretics) to increase the urine output may be needed. Your doctor will prescribe antibiotics if he suspects bacterial infection that children are often prone to. Corticosteroids are not given to children with nephrotic syndrome whose blood test for hepatitis B is positive.
In a child with nephrotic syndrome, an attack of any viral infection can also lead to a temporary swelling of the body. Your doctor may wait for some time before starting any medication.

A trace of protein in the urine in the absence of swelling of the body can be ignored. It may be worth noting that strenuous exercise by young children can lead to a temporary excess of protein secretion in urine.

★ NOSE-RELATED PROBLEMS

Bleeding From The Nose (Epistaxis)

CAUSES: Nosebleeds can occur because of direct injury to the nose and due to nose picking. Sometimes, it may also be a manifestation of a generalised bleeding disorder, or because of an infection or a foreign body in the nose.

TREATMENT: Step 1: Do not show any panic. Let the child sit up in bed or on a chair or on the floor. He should be leaning slightly forward.

Step 2: Pinch the nose for at least 10 minutes. The child can open his mouth if he likes. Often, the nose bleeding will stop with this procedure.

Step 3: If bleeding continues, try to get in touch with a doctor. In the meanwhile, take some cotton, roll it into a thick wad large enough to occupy the nostril which is bleeding. Leave a part of this wad of cotton outside the nose. If some hydrogen peroxide is available, moisten the cotton with it or lubricate it with Vaseline. But do not waste precious time searching for these things. Just a wad of cotton will serve the purpose. Again, pinch the nostril for at least 10 minutes, keeping your child upright. After the bleeding stops, leave the cotton in the nostril for the day or overnight. Then take it out gently. Make sure that the child does not pick at the nose.
Step 4: If the bleeding still continues, you should see your doctor. In the meanwhile, you may try pressing on the big vessels that go up the nose. Put a wad of cotton between the upper lip and the gums below the nose and press firmly on the cotton from outside.

PREVENTION: Keep the child’s nails short and explain to him that he should avoid picking his nose. If you notice a crust near the opening of the nose, apply Vaseline on it. A child who bleeds in a particular season may be helped by application of Vaseline inside the nose, twice a day, all through the season.

Foreign Body In The Nose
Toddlers tend to put small beads, pebbles, buttons, etc. into their nostrils. They may or may not tell you about it. A few days later, a foul discharge comes from the nostrils, sometimes accompanied by blood.

MANAGEMENT: If the foreign body can be seen near the opening of the nose, attempt to remove it with tweezers. Otherwise, press against the clear nostril and ask the child to blow out forcefully from the blocked side. If even this does not help, take the child to the casualty department of a hospital for the removal.

Direct Injury To The Nose
Apply cold compresses with ice for about an hour.

See your doctor if you find that there is obstruction to free flow of air through the nostrils, or if you notice any obvious deformity.

★ OBESITY
The term obesity refers to the excess of fat tissue in the body. In simple terms, a child is said to be obese if his weight is 20% more than the standard weight for his age and height. The ideal body weight for height (% IBWH) is the actual weight
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divided by the median weight for the child’s sex and height multiplied by 100. This may be represented as:

\[
\% \text{ IBWH} = \frac{\text{Actual weight} \times 100}{\text{Expected (median weight)}}
\]

Obesity is then defined as greater than 120% of IBWH.

Parents of obese children often get worried for the wrong reasons. They wonder if the child has some endocrinal or hormonal disorder. Obese male children seem to have a small penis. Actually, the penis is of the normal size, but it appears small when it gets buried into the fatty tissue at its base. The apparently small size of the penis, coupled with obesity, raises the doubt of a hormonal disorder in the minds of the parents.

Although certain hormonal disorders can give rise to obesity, most cases are not due to any hormonal disturbance.

Children with more fat around the midsection (‘apple-shaped’ children) have more heart disease risk factors later in life than their ‘pear-shaped’ peers who have more fat around the hips and thighs.

CAUSES: The three main causes of obesity are a family history of obesity, inactivity and poor family food habits. Emotionally disturbed children may also eat more. Television viewing adds to inactivity. The problem gets worse if the child is allowed to eat while watching television.

Fortunately, most obese toddlers lose the extra fat around 5 years of age. But a fat school child is likely to remain obese, especially if the parents are fat.

MANAGEMENT: Help your child to adopt healthy food habits and exercise. It is important that the whole family cooperates with the child. Junk foods like cold drinks, ice creams, cakes, pastries, French fries and sweets should not
be brought into the house, or the child tempted with them. A minimum of ghee or oil should be used for cooking. More of fruits, vegetables, whole wheat grains, beans, pulses and sprouts should be eaten. Consumption of meat should be restricted. Snacks should consist of fresh fruits and fruit juices, low fat milk and dahi, paneer, khakhra (very thin roasted chapatis from Gujarat), raw vegetables, puffed rice, channa, corn on the cob and popcorn without butter.

Obese children tend to eat fast and at irregular hours. They should be encouraged to eat slowly, chew properly and stick to regular mealtimes as far as possible.

**Exercise**

This subject is discussed at length in the chapter on HEALTHY HABITS. This is as, if not more important, as diet control for weight reduction.

**Encouragement**

Discuss the risks of obesity with the child. Tell him that it can cause heart disease and other chronic diseases including hypertension, early artherosclerosis, hyperlipidaemia, and hyperinsulinaemia. Let him feel responsible for his well being. Do not give him appetite-suppressant drugs. Do not starve him, he needs an adequate number of calories.

Spend more time with your child and encourage him in his weight-reduction efforts.

★ **PNEUMONIA**

Pneumonia can be due to several causes. Bacterial pneumonia is common. It must be treated promptly.

SYMPTOMS: Suspect this condition if the child's breathing is faster than usual. A breathing rate of 50 or more per minute in an infant, 40 or more in a child between 1 and 5 years, and more than 30 in an older child should be taken seriously.
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Pneumonia may start with fever, a stuffy nose or cough. In an infant, the temperature may be around 39°C. He will be restless, have fast breathing and look quite sick. He may also develop cyanosis with blue lips and nails and noisy breathing. The spaces between the lower ribs may go in when the child breathes. The fever in an older child will be even higher (40.5°C or more). He may also have chills and cough out blood-tinged sputum. He may complain of pain on the affected side of the chest while breathing in.

TREATMENT: A child with the above symptoms must be shown to the doctor. An X-ray of the chest may help. Antibiotics result in marked improvement within 2 to 3 days. But the medicine must be continued as per your doctor's advice and the course completed. Hospitalisation may be needed, especially in an infant with breathlessness.

POISONING

MANAGEMENT: Here we shall deal with the steps to be taken if you suspect that your child has been handling some poisonous substances or has consumed them:

Step 1: Remove the poisonous substance from his system. If he has some of it in his mouth, remove it with your fingers. If the child can understand, ask him to spit it out. Preserve this stuff along with the poisonous substance that is in his hand or is lying near him. Your doctor will need to check its contents.

If the child has spilled some poisonous substance on his body, remove the clothes and pour water (not hot) on his skin as you would in managing a case of burns.

If the poison has gone into his eye, wash it with water. Keep washing the eye for about 15 minutes.

Step 2: After having taken these first steps, ring your doctor and ask him if you should make the child vomit. His advice is needed because vomiting is not advisable if the child
has swallowed acids used for cleaning the toilet sink or alkalis used for washing dishes. In such cases, your doctor will probably advise giving milk or water.

If your doctor advises you to make the child vomit, give him a drink of salt water. The best way to make the child vomit is to give him syrup of ipecac. Unfortunately, it is not easily available at a chemist. If you can procure a bottle of it, keep it handy at home. If your doctor is not available and you have ruled out the ingestion of acids or alkalis, give 3 teaspoons of this medicine followed by a glass of water. If he does not vomit after 20 minutes, give one more dose.

As soon as the child vomits, collect the vomit in a vessel and preserve it to be handed over to your doctor for inspection and testing.

Step 3: After following the first two steps, take the child to the nearest hospital for further management. You must take with you the remaining poisonous substance and the amount removed with your fingers or the stuff vomited by the child. The doctor would also like to know the possible amount of poison taken by the child and the likely time when he might have ingested it.

After taking a quick history and checking your child, the doctor may decide to send you home, or do a stomach wash to remove the remaining poison from his stomach, or he may decide to admit the child in the hospital.

Step 4: If you are sent home with your child, observe him closely for the next 12 hours for any abnormal behaviour, convulsions, breathing difficulty, persistent vomiting or failure to pass urine. If in doubt, consult your doctor or take your child to the hospital again.

PREVENTION: Prevention of poisoning is discussed in the chapter on PREVENTION OF ACCIDENTS.
POLIOMYELITIS

SYMPTOMS: Polio is caused by any one of three types of viruses — type 1, 2 or 3. The extent of the illness varies from child to child. Fortunately, 90% to 95% of affected children who get the infection do not manifest any symptoms. A few may just get a little fever or stiffness of the neck and back. Paralysis of muscles is seen in less than 1% of cases.

The child may completely recover from the paralysis or may be left with some degree of handicap. Serious cases may involve the brain and muscles of respiration.

TREATMENT: If you suspect poliomyelitis, show your child to the doctor as soon as possible. Those attending to the child must wash their hands properly, especially after handling the baby's stools.

It is advisable that, 6 weeks after a child recovers from an attack of poliomyelitis, he is given 3 doses of oral polio vaccine, irrespective of his previous immunisation status.

PREMATURE BABY

Babies who are born before the expected time are called premature babies. They normally weigh less than 2.5 kgs. at birth. But in our country, quite a few babies who are born at the expected time also weigh less than 2.5 kgs. All low birth weight babies, especially those below 1.8 kgs. and those born 2 months before full term need special care in a hospital.

MANAGEMENT: A warm environment, protection from infection and adequate nutrition are the most important steps in the management of a premature baby.

Because of less fat, a premature baby can get cold. For warmth, the baby is either kept in an incubator or in a heated room. An incubator can be a source of infection in many settings. Therefore, some doctors prefer to keep the room
warm with the help of a heater. A temperature of 28°C to 30°C is maintained in the room. The aim is to keep the baby’s armpit temperature at between 36.5°C to 37°C (98°F to 99°F). The baby’s head and feet must be well covered. Another good way to keep the baby warm is to let him sleep with the mother. She can also carry the baby next to her body, inside her clothes, between her breasts, in what is called the ‘kangaroo position’. The baby should be sponged, not bathed till he weighs 2.5 kgs. A baby with proper temperature has pink and warm soles and palms. Blue or cold palms and soles may indicate that the baby either has some infection or is not being kept adequately warm.

A premature baby is more prone to infections. For prevention of infections, all those who handle the baby must wash their hands thoroughly with soap and water. Visitors should be avoided. But the mother must be allowed to handle the baby. If the baby is too premature, you must at least touch the baby often, as per your doctor’s advice. The skin-to-skin contact with the baby is helpful for you as well as for him.

For proper nutrition, your breast milk is best for your premature baby (see the chapter on FEEDING THE NEWBORN AND INFANTS).

Jaundice and eye problems (retinopathy in eye) are more common in a premature baby. Your doctor will keep a close watch on the baby in case any intervention is necessary. To detect retinopathy of prematurity, initial screening should be done at 7 weeks of chronological age or 34 weeks of postconceptional age — whichever comes first — but not before 5 weeks of chronological age.

Premature babies receiving human milk may need supplementation with iron, calcium and vitamins A, C and D.
PROLAPSE OF THE RECTUM

Do not be unduly worried if you notice that your toddler or preschool child’s rectum is coming out of the anus as a red mass. It may go back on its own or may need to be pushed back.

CAUSES: Known causes are related to whipworms, giardiasis, severe diarrhoea, constipation, severe bouts of cough, and malnutrition. Whatever the cause, this needs to be treated by your doctor. In some cases, no cause is found and the condition improves spontaneously after it happens a couple of times.

TREATMENT: For temporary relief, take a handkerchief or any clean piece of cloth, dip it in warm water and gently push the mass inside with your index finger wrapped with the warm wet cloth. If it still tends to come out, bring the buttocks together and strap them with a bandage (x-shaped) that is kept in place with sticking plaster. Improve the child’s nutrition and discourage him from sitting on the toilet for prolonged periods of time.

Consult your doctor. Surgery may be needed in rare cases.

RABIES

Rabies is a very serious disease that gives rise to difficulty in swallowing, convulsions and death. It results from the bite of an infected animal like a dog, a cat, a monkey, a bat or a fox. Bites from all these animals should be taken seriously and the following steps should be undertaken.

MANAGEMENT: Step 1: Tie the animal up if possible for close observation for a period of 10 days. If the animal is healthy after this period, there is no cause for concern. This is true of a cat or a dog. But a bite from a wild animal like a bat or a fox should be taken very seriously. If it is possible, such a wild animal is to be killed immediately.
and its brain examined to see if it is infected with the rabies virus.

**Step 2:** If the wound is bleeding, check the bleeding by firm, constant pressure. *Then wash the site with soap and water for at least 10 minutes.* This is the most important.

**Step 3:** Contact your doctor immediately. In the meanwhile, check if the pet animal has been immunised or not.

**Step 4:** Your doctor may ask certain questions. For example, did the pet dog or cat bite the child under provocation? Was it a direct bite or through the clothes? Which portion of the body was bitten? What is the immunisation status of the pet animal? If the bite is from a wild animal, your doctor is likely to give preventive injections for tetanus as well as for rabies. In the case of pet animals, he may decide, depending on the answers to the above questions, whether to start the injections straightaway or to wait for a few days while the animal is under observation.

**Prevention Of Dog Bite**

Educate your child not to provoke a dog. Teach him not to touch puppies in the presence of their mother; not to run when he sees an unfamiliar dog; and not to disturb a dog that is eating or sleeping.

★ **RHEUMATIC FEVER**

Rheumatic fever can be a serious disease as it can involve the heart and can lead to chronic heart disease if not detected and treated in time.

**SYMPTOMS:** The disease follows a sore throat with painful and tender lymph nodes under the jaws. This sore throat is caused by a specific bacterium. It should be distinguished from a sore throat due to a viral infection in which the patient
also has cough and a runny nose without enlargement of the
neck glands.

In a typical case, a child of school going age (5 to 15 years) has a sore throat as mentioned above. One to 3 weeks later, he presents with flitting joint pain and swelling. It usually affects the big joints. By flitting pain, we mean that the joint involved becomes normal in a day or two while another gets affected. Then the second becomes completely normal while a third is found to be painful and swollen. Besides this typical problem with the joints, the patient also has fever. He may get a rash on the trunk which comes and goes. He gets nodular swellings on the back of the head or on the elbows and legs and the doctor may find that his heart is affected. Some cases present with abnormal involuntary movements of the body and limbs (chorea). Your doctor may find some other features.

TREATMENT: The doctor may ask for some blood tests. He may also order an ECG (electrocardiogram) and a chest X-ray. In a chronic case with involvement of the heart, an echocardiogram may be needed.

Bed rest, treatment for a sore throat, and aspirin is the commonly prescribed regimen. Let your doctor decide how long your child should stay at home. The more important point that you must remember is that further attacks of bacterial sore throat in children who have had rheumatic fever must be prevented. For that, the doctor will ask you to give the child a medicine to be taken regularly for a number of years. This is essential because further attacks can adversely affect the heart.

In case of a tooth extraction, or surgery inside the mouth, the doctors will also put the child on a medicine just before and for some time after it. You must therefore tell the surgeon that the child has had rheumatic fever in the past, so that he can take the necessary precautions.
**RHEUMATOID ARTHRITIS**

Although many people believe that rheumatoid arthritis only affects adults, the disease can also affect infants and especially toddlers. However, the disease is not very common in paediatric practice.

SYMPTOMS: In a typical case, a toddler starts complaining of pain in one or more joints. The pain is more marked on getting up in the morning. Characteristically, the affected joint feels stiff in the early hours of the day and this stiffness becomes less marked as the day progresses. The affected joints become swollen and painful. They are hot to the touch. The classical presentation is swelling of the small joints of both hands. But in about half of the cases, only one big joint like the knee or ankle may be involved. The heart is usually spared.

The picture is different from rheumatic fever with involvement of joints (rheumatic arthritis). In this condition, the swelling in the involved joints persists for days together, whereas in rheumatic arthritis, the affected joint remains swollen for only a day or two, while another joint becomes painful and swollen. The first joint becomes completely normal while a third one is attacked (flitting joint involvement in rheumatic fever). Also, morning stiffness is typical of rheumatoid arthritis as is the involvement of the joints of the neck.

Your doctor will also keep in mind the other possibilities for the swelling like injury, local infection, scurvy (due to Vitamin C deficiency) and haemophilia (a bleeding disorder due to a defect in the clotting of blood).

He may also order some tests, especially in cases which are not typical or have less common manifestations like a skin rash, enlargement of the lymph glands, involvement of the heart and prolonged unexplained fever without swelling of joints.
TREATMENT: Keep in close touch with your doctor because the treatment may have to be prolonged. Fortunately, most cases recover completely, though some may grow into severe arthritis or cause damage to the eyes.

**RICKETS**

This is a disease of the bones that can affect children who do not get any exposure to sunlight. Our skin has a pro-Vitamin D that is converted into Vitamin D in the presence of sunlight. Vitamin D protects the child from getting rickets. However, rickets can also occur due to calcium deficiency with normal Vitamin D levels in the body.

SYMPTOMS: In a typical case, an older infant or a toddler is brought to the doctor with bowing of the legs. The doctor finds widening of the ends of his long bones, near the wrists or ankles. The eruption of teeth is delayed. The forehead appears rather prominent. The anterior fontanelle (the soft spot on the head) is widely open. The child seems to be prone to frequent infections. Some children get tetany (fits due to calcium deficiency). An X-ray of the wrist shows classical evidence of rickets.

While being aware of the above findings, you must remember that all these features can be seen normally in individual children. Thus, bowing of the legs in the absence of the other features of rickets in an infant is normal. The legs may straighten on their own without any treatment. Teeth may erupt later in some children, who are otherwise normal. The anterior fontanelle may sometimes normally close towards the end of the second year. The head may look big because of the bigger size of the parents’ heads. So let your doctor decide whether the child has rickets or not.

TREATMENT: Your doctor will prescribe Vitamin D. In most cases, the improvement is rapid and the X-rays return to normal. Do not give your child more Vitamin D than necessary.
prescribed by your doctor; he could get Vitamin D poisoning. You must make sure that the child’s skin is exposed to morning sunlight for 10 minutes everyday, but make sure that the child does not get sunburn due to prolonged exposure to the sun.

Rickets is extremely rare in breastfed children. In my 30 plus years of practice, I have seen it only in 4 breastfed cases. In 3 cases, the child, even though advised, was not exposed to sunlight for fear of his getting a dark skin. All improved with Vitamin D and exposure to sun.

★ SHORT CHILD

The normal height of children is detailed in the chapter on NORMAL GROWTH AND DEVELOPMENT.

CAUSES: If the height of a child is less than expected, the following are the more likely causes:

- Small size of parents
- Small size at birth
- Chronic infections
- Bronchial asthma and congenital heart disease (CHD).

Small Size Of Parents

A child may take after his mother or father who is short. The child may have a sudden increase in height as he enters his teens.

Small Size At Birth

Children with low birth weight and length are likely to remain small, even if they are born at the expected time (small for date babies).

Chronic Infections

Undiagnosed and untreated chronic infections like a urinary infection can be responsible for poor gain in weight and height.
Severe bronchial asthma as well as CHD can cause shortness of stature.

Less Common Causes

Hormonal disorders like hypothyroidism and growth hormone deficiency, though uncommon, must be diagnosed and treated promptly. Certain chromosomal disorders and hereditary disorders affecting the skeleton can also result in stunted growth.

TREATMENT: Besides treatment of an obvious cause for shortness, there are no specific measures to increase height.

Swimming and exercise are desirable, but one should not expect that the child's height will increase by such methods. The same is true for a healthy diet. Of course, if a child has been ill fed from an early age, his height and weight will have been affected. But pushing the child to eat more does not help.

Vitamins and iron, unless indicated for specific reasons, are not helpful in increasing height.

Similarly, drugs to stimulate appetite like cyproheptadine and anabolic steroids are of no use and can, in fact, be harmful. A growth hormone is sometimes given, if indicated, under the close supervision of a paediatrician or an endocrinologist.

SKIN CONDITIONS

A healthy skin protects us from several diseases. Adequate sleep, exposure to morning sunlight for about 10 minutes, a daily bath, clean clothes, breastfeeding for smaller children and a healthy diet for an older child that includes coconut water, fresh fruits, leafy and raw vegetables, avoidance of unnecessary drugs and a happy state of mind, all help in keeping the skin healthy.
Basic Care Of Your Child’s Skin

The skin basically consists of two layers. The outer layer is called the epidermis, and the inner layer is the dermis. In general, smaller children tend to have drier skin as compared to older ones. So it is not advisable to use too much soap on a child’s skin. Expensive soap is not required. Any unscented bath soap may be used 2 to 3 times a week.

Infections of the face and buttocks are more common in young children. These areas should be washed more frequently. No talcum powder or special baby powder is advisable, they irritate the nostrils and lungs, and tend to cake in the skin folds. Baby creams and oils are also unnecessary. If the skin is too dry, coconut oil or a refined cooking oil may be tested on a small area of the skin. If it does not give rise to a rash, use it on the rest of the body. If the child develops a rash, try some other inexpensive oil.

Acne

Acne or pimples is a disease of adolescence. It is due to hormonal changes at this age resulting in more oily secretions. Although a healthy diet and a clean skin are desirable for all children, do not nag a child having acne about personal hygiene and food all the time. There is no evidence that fried foods or chocolates are the cause of acne. However, if you explain to the child the basic cause of acne, he is more likely to listen to your advice about avoiding junk food as far as possible. Just share information about acne with your child as a friend.

SYMPTOMS: Acne affects the face and upper chest or back.

MANAGEMENT: Washing the face once in the morning and once at night with an ordinary bath soap is enough. Instruct the child not to keep touching the pimples and not to squeeze them. He will listen, especially if you explain that pinching the pimples can lead to permanent scarring.
Regarding medication, it is better to take the advice of your doctor or a skin specialist and to avoid indiscriminate use of over-the-counter medicines. Treatment should be continued as per your doctor’s advice. Most cases improve within a month or two, but the condition can recur. Fortunately, most cases improve with age.

**Albinism**

SYMPTOMS: Children with this inherited condition have white hair, white skin, blue eyes (blue iris) and diminished eyesight. However, they can manage to read and write. They also have photophobia (intolerance to bright light). The condition is not too uncommon — occurring in 1 out of 20,000 people. A person with albinism who marries a healthy unrelated person can have a child without albinism. Most individuals can lead a satisfying life. Severe cases can develop blindness and skin cancer later in life.

TREATMENT: No treatment for this condition is available.

**Boils**

SYMPTOMS: A boil is caused by the collection of pus under the skin and may show up as a painful pimple or as a red, hot and tender swelling under the skin called an abscess.

TREATMENT: The basic treatment is drainage of pus. Give hot water fomentation to the area every 3 to 4 hours (place a thick layer of sterile gauze pieces — available at a chemist — over the swelling. Pour warm water over it. Let the wet gauze remain in place for about 15 minutes. Then remove the wet pieces and dress with dry gauze and bandage). This may be needed for a few days. When the head of the boil opens and starts discharging pus, continue the hot compress till all the pus comes out.

As with acne, do not squeeze the boil to take out the pus. Let it come out on its own with the help of moist heat. If you
do not notice any relief within 3 to 4 days, consult your doctor. At times, the pus may need to be drained out with the help of a cut. Your doctor may have to dress the wound and prescribe some antibiotic to be taken orally.

**Diaper Rash (Nappy Rash)**

This rash, confined to the nappy area, is commonly seen in newborn babies and in older infants with frequent loose motions. It is seen less commonly in breastfed babies. It is more common with babies who are put into disposable diapers. A naked baby does not get diaper rash.

SYMPTOMS: Typically, we neglect to change the diaper soon after it is wet or soiled, and the prolonged contact of the skin with urine or stools leads to redness over the lower part of the abdomen, groin, the genital area and the buttocks. This is more likely to happen with a disposable diaper. Sometimes, the moisture in the area can attract a fungus. Fungal infection leads to redness over the area mentioned above, except the buttocks.

PREVENTION: To prevent diaper rash, use cotton diapers instead of disposable ones. Even when you are travelling, use a cotton diaper and cover it up with a plastic cover. Try to change the diaper as soon as it is wet. Clean the soiled diaper area with plain water and dry it. Make sure that no moisture is left in the groin or in the creases of the skin.

Some babies get up if the diaper is changed during the night, but they do not get the rash even if the diaper is not changed.

A few more words about disposable diapers: Of late, the quality of disposable diapers has improved, resulting in less incidence of nappy rash with their use. However, some other problems with disposable diapers are being brought to light. Doctors at the University of Keil in Germany report that plastic-lined nappies cause heat to build up around the testes,
possibly hampering their development at a vital stage in a child’s growth. The highest temperatures were found among the youngest babies. Dr. N. G. Wagle, former chairman of the Consumer Guidance Society of India, comments that disposable diapers are reported to have over 5 times the levels of tetrachlorodibenzodioxin, a potent toxin, as compared to cloth diapers. He also points out that a full-grown tree is cut to make just 500 diapers.

TREATMENT: If your baby develops diaper rash, expose the skin to air as often as possible, especially for some time after he has passed urine and/or stool. This is often enough to solve the problem. If the rash persists, a preparation containing zinc and castor oil may be used for local application. Your chemist can make it or any readymade preparation can be used 3 times a day. Take the baby to the doctor if the rash persists. He may have to treat it with an antifungal preparation.

In severe diaper rash, do not excessively cleanse or wipe the affected area. Washing with plain water, followed by cool compresses of a mixture of half milk and half water, then an application of a zinc cream over a light application of mild steroid and antifungal cream seems to work best. The diaper should be changed every hour through the hours you are awake.

Eczema
See Allergies.

Impetigo
SYMPTOMS: Impetigo, like boils, is also due to a bacterial infection of the skin that presents as blisters which burst open and form sticky yellowish crusts. They are infectious and can spread to other parts of the body, but are usually confined to the skin around the mouth and the buttocks, though they may be passed on to other close contacts.
TREATMENT: A local antibiotic cream is all that is needed in mild cases. At times, your doctor may have to prescribe an antibiotic to be given orally. The child’s clothes should be changed frequently.

**Leprosy**

While it is true that leprosy is more common in certain areas and in the poor socio-economic groups, it can affect a child from any background. However, most cases of suspected leprosy are simply white patches of no significance and need no treatment. Some of these are due to a fungal infection that can be treated easily with local applications.

**DIAGNOSIS:** An early diagnosis of leprosy makes all the difference to its treatment. That is why our discussion here is limited to the diagnosis of an early case, with loss of sensation over the affected part.

If you see a light-coloured patch on the skin that looks different from the surrounding area, test it for loss of sensation with cotton. First, touch the normal-looking area with the child’s eyes open. Then touch the doubtful area. After that, ask him to close his eyes and let him point to the area you touched. If he cannot feel anything over the light-coloured area, repeat the test with a pin. Do not prick hard. If in doubt, see your doctor.

**TREATMENT:** Do not be unduly upset if it turns out to be leprosy; we now have very effective drugs for the disease. A history of close contact with a case of leprosy is helpful to make a diagnosis, though leprosy may be present even in the absence of such a history.

Patches of leprosy should be differentiated from ringworm and vitiligo discussed here. A very common type of white spot is noticed in children who play a lot in the sun, mostly on the cheeks of children with darker skin, but also elsewhere on the body. They tend to come and go, and disappear after a couple
of months. No treatment except patience is of any help. Some believe that such white spots may be associated with worms; there is no harm in giving your child treatment for the same. Incidentally, it may be mentioned that such patches (and also white lines on the nails) are not due to calcium or other deficiencies.

**Lice**

Children often bring lice home from school or get them from a maid or any other person at home. Please do not blame your dog, if you have one; pets do not transmit this parasite.

**SYMPTOMS:** Lice cause severe itching and irritability. Eggs of the louse, the parasite that initiates the itching, are seen sticking to the hair like grains of salt.

**MANAGEMENT:** Your doctor will prescribe a local application, which is quite effective. It is important to treat all members of the family, who have even the slightest itching. After a few days of treatment, the hair should be combed with a fine-toothed comb to remove all nits. All clothes, combs or brushes that come in contact with the hair should be washed clean with hot water.

Bacterial infection of the scalp may result following scratching, which may also need to be treated. Small pea-sized glands at the back of the neck are often due to lice. Once enlarged, they may take long to disappear. No treatment is required for these.

**Molluscum Contagiosum**

This is a contagious skin disease caused by a viral infection, which can spread from one part of the body to another.

**SYMPTOMS:** It presents as firm, pearly, skin-coloured swellings of 1 to 5 mm in size. The centre of the swelling appears depressed, from which a cheesy material can be expressed. The disease can get better on its own, but may persist for months or even years.
TREATMENT: The swellings can be tackled by removing the cheesy material with a needle or by curettage. They can recur. In order to destroy the swellings, all those having the disease in the family should be treated. Recently, cimetidine, a drug given by mouth (40 mg. per kg. body weight per day for 2 months) has been found helpful in this condition.

Ringworm And A Few Other Fungal Skin Infections

Ringworm is a fungal infection that presents as small, somewhat raised rings on the skin with a pale centre. Itching may be present, but is not marked. It can spread from one child to another. Generally, local treatment and personal hygiene is all that is required. In rare cases, your doctor may prescribe a medicine to be taken orally, especially if the nails are also affected. The patches differ from leprosy because of the surrounding ring and no loss of sensation. The nails appear discoloured and thickened.

Tinea versicolor presents as dark brown or whitish spots on the upper part of the chest and back. They are also surrounded by a border that is rather irregular and not so well raised as in ringworm. A local application twice a day for about a month clears it completely. It may come back again when the treatment needs to be repeated.

Candida infection (which also causes a common fungal infection of the mouth called thrush) may affect the groin, armpits and neck. It presents as moist red areas of skin, and responds well if the affected parts are kept dry, and are given exposure to air and an antifungal treatment.

Scabies

SYMPTOMS: If more than one member of the family has itching all over the body — more marked on the wrist, between the fingers and on the penis and scrotum — you are probably dealing with scabies. The child may even get it from a close friend.
MANAGEMENT: Preparations for local application containing benzyl benzoate or gamma benzene hexachloride are quite effective.

In older children, the medicine may be applied all over the body below the neck, especially between the fingers and toes, and on the groin. Bathing should be avoided for 24 hours after applying the medicine.

Smaller infants may also have the disease above the neck and so the medicine in 1:1 dilution with coconut oil should also be applied to the face and head. The treatment should be repeated after a week.

PREVENTION: Besides personal hygiene, all members of the family having even the slightest itching should be treated. The disease can spread through clothes and linen, which should be boiled and dried in the sun before use.

Sunburn

Fair-skinned children are more vulnerable to sunburn.

SYMPTOMS: Sunburn presents as intense redness of the skin over the chest and back following exposure to sun. An older child may even complain of pain and a burning sensation in those parts that were exposed for a prolonged period to sunlight. The skin may peel off after a day or two.

TREATMENT: Recovery takes place within a few days without any specific treatment. Frequent baths with baking soda added to the water help.

Some lotions, recommended for application before going out in the sun, contain drugs that may not be safe for children. The best precaution is to ensure that children do not stay in the sun for too long.

Urticaria

See Allergies.
**Vitiligo**
Vitiligo is the loss of skin colour, resulting in almost pure white patches. Any part of the body can be affected, but they are more common on the hands and face, especially around the lips and eyelids. The sensation on the skin is normal.

**MANAGEMENT:** If in doubt, consult your doctor. He will rule out the diagnosis of leprosy and instruct you to avoid prolonged exposure of the white patches to the sun. If this is not possible, cover the parts or apply any ointment containing zinc oxide. Otherwise, the skin may develop blisters. No specific treatment is available. Your doctor may prescribe some local application combined with exposure to sunlight or ultraviolet light. At times, an oral medicine is also prescribed. Some patches may recover spontaneously. But generally, more areas of skin keep getting involved.

Parents must meet the school authorities with a certificate from a doctor that the disease is not infectious. They should not pass on their anxiety to the child and thus avoid secondary emotional problems in an otherwise healthy child.

**Warts**
**SYMPTOMS:** Caused by a virus, warts present as rather hard yellow, brown or black swellings on the hands and toes. They can also occur on other parts of the body.

**TREATMENT:** Though many cases are cured spontaneously, it may take years for this to happen. It is better to treat them early with the advice of your doctor. Surgery is sometimes needed. Warts tend to recur, but will respond again to the treatment.

**SLEEP AND SLEEP PROBLEMS**
Treat this important feature as a guide and act as per your instincts with regard to the needs of your child and the rest of your family.
We will discuss the following points:

- The duration of sleep differs at different ages and from child to child.
- A few sleepless nights are normal in the first months of your child’s life. After about 3 months of age, most babies settle down to a schedule convenient for you and the family.
- While older children may sleep in a separate room, your young infant will sleep better with you.
- Close relatives, specially the father, should be involved in helping the baby to sleep well.
- Most sleep problems are temporary.

**Duration Of Sleep**

The duration of sleep varies from child to child. If your child is joyful and active the whole of the next day, you can be sure that he had a good sleep the night before. If he is irritable and not his usual self, he either had inadequate sleep or has some other emotional or physical problems.

A newborn baby seems to sleep most of the 24 hours of the day, except when he is hungry, wet or uncomfortable for some other reason. As he does not yet know the difference between day and night, he may sleep more during the day and less at night. While this may not be convenient for the mother, she will then herself choose to sleep more during the day while the child sleeps, and learn to feed the baby in a lying position (safe in breastfed babies) in bed without having to get up to feed. People at home should support her by restricting visitors.

Some babies may demand extra attention. They are rather fussy and can give anxious moments to an unprepared mother. Most (but not all) babies seem to sleep better after their morning massage and bath, especially if they are swaddled (wrapped up).
In the second month, the baby is more awake and, after about 6 weeks, may start responding when you try to catch his attention. Around 3 months of age, the pattern of sleep is more likely to change, and most babies sleep for longer hours at a stretch during the night. They are more awake during the day and may have a nap for an hour or two in the morning and again in the afternoon. This pattern continues until the first birthday. They may then have a nap only in the afternoon until the age of 3, when they may stop having a nap during the day. At this age, most children will sleep for about 10 to 12 hours at night.

**Teenagers need 9 to 10 hours of sleep each night. Sleep deprivation can affect academic performance.**

**The Difficult First Months**

To understand the basis of this statement, you should have some idea about ‘light sleep’ associated with rapid eye moments (REM) and ‘deep sleep’, also called non-REM sleep.

A newborn’s sleep period begins with drowsiness, leading to light sleep, and followed by deep sleep. Rapid movement of the eyes and dreaming mark light sleep. Up to the age of 3 months, half a baby’s sleep time comprises of light sleep. Compared to this, toddlers, older children and adults have deep sleep for up to three-fourths of the total sleep period. So if a small baby below 3 months sleeps for 16 hours, he has deep sleep for 8 hours. For the other 8 hours, he is in light sleep. Older children who sleep for 12 hours may have light sleep for only 3 hours. A baby is likely to wake up more easily from a light sleep. A mother may put a child passing through this stage of sleep down on the bed with the impression that he has gone to sleep, but he is likely to get up soon after and start crying because he has not yet gone into a state of deep sleep. Therefore, it is important that we continue to give the child body contact till he crosses the barrier of light sleep and moves into the realm of deep sleep.
Also, as mentioned earlier, babies are not yet able to distinguish between day and night. Therefore, they may sleep more during the day but bother Mom more during the night.

And then, in the mother’s womb, all the needs of the foetus were met promptly. Hunger was satisfied, warmth assured. There were familiar heart sounds to entertain. After he is born, the baby needs about 3 months to understand that his demands should be reasonable and that Mom also needs rest. And so most babies would have their mothers dance to their tune for the first few months.

The good news is that those mothers who respond promptly to baby’s needs in the first few months are rewarded in the long run. As they grow older, babies thus reared are quieter, calmer and more secure compared to babies who are left to cry. They start trusting people around them, which helps in personality development.

The so-called three months’ colic (discussed under Crying) is another problem that bothers quite a few babies in their early months.

Once you know about these possible factors that may make life difficult for you and your baby, you will be able to cope with such a situation with the right frame of mind. This may also send signals to other members of the family to give you a helping hand as often as possible.

Listen to well-wishers’ advice but follow your own instincts. Cry if you feel like. Do not feel ashamed to ask for help if required. But have patience. A crying child is indicating that he needs you. If you fulfill his needs, you will start understanding him better. You will learn to discriminate more quickly whether his cry is for a feed or for comfort. In due course of time, this approach will help you to quickly pick up the cues that he gives you — even cues related to his
readiness in such areas as bladder training, inculcation of healthy habits or to make him learn to choose between right and wrong.

A breastfeeding mother finds it easier to cope with this difficult period. The three months’ colic is less frequent in breastfed babies compared to those who are artificially fed. The body contact which breastfeeding automatically provides helps the baby feel more secure in the arms of the mother. Suckling during breastfeeding also helps in increased production of a hormone called prolactin, which has a calming effect on the mother and helps arouse the mothering instinct in her. This hormone is produced in greater quantity during sleep. So a mother who feeds her baby during sleep is able not only to provide immediate gratification to the hungry or fretful baby, but help herself as well by providing more prolactin.

After having made the point that a crying baby should not be left crying, I must sympathise with mothers who have to spend sleepless nights in this process. The following guidelines might be found helpful:

• Get into the habit of sleeping while the baby sleeps, as mentioned earlier.

• Do not switch on the lights when the child gets up at night. The idea is to gradually let him learn that nights are meant for sleeping and not for playing. Feed him in a supine position if he is hungry. Pat him to sleep if he is just squirming. Give him body contact if he has moved away from you.

• Do not get up to burp the child. Raise him while you are lying down. Let him lean against you to burp. If he does not oblige, do not worry. Quite a few babies can manage without burping. If you are still concerned, let him lie on his right side; in this position, the child is more likely to burp on his own.
If a child has wet his diaper, see if he can remain asleep without it being changed. After the first few weeks, quite a few babies can tolerate a wet diaper without getting upset and without getting diaper rash. If the baby does get annoyed or if the whole bed gets wet, try putting a double diaper on him. Tie it firmly. This may work. If not, keep such diapers handy which do not need to be pinned and can be tied easily in the dark. The important rule is not to spend too much time in changing the diaper so that both you and the baby can go back to sleep as soon as possible.

All noises do not wake up a child. Many babies sleep quite well with some background music or human conversation. Of course, sudden loud noises may startle them, especially if they are in a period of ‘light sleep’.

Where Should Your Child Sleep?

Decide with your husband what will work best for you and your baby. Do not blindly follow the textbooks that exhort that children should sleep in a separate room right from an early age.

The baby can sleep next to you in your bed or in a cradle or in a cot kept in your room or in an adjacent room. Toddlers can sleep on a mattress in your room or in a bed in an adjacent room. Older children can sleep in a bed or on a mattress in an adjacent room.

I believe that a baby who sleeps in his mother’s bed soon after birth has less sleep problems and behavioural problems later in life. In the hospital, you should insist that your baby sleeps next to you and is not kept away in a nursery with other babies. You can, if you want, ask for a cot that can remain near your bed. The baby can be placed in it as per your convenience. Most mothers have been found to sleep better with the baby in their rooms once they understand that this
helps in bonding with their baby. Of course, you can always seek help from the nursing staff as and when required.

If allowed, it is, of course, a real boon to have a close relative in attendance. Most modern hospitals encourage such an arrangement.

After going home, many mothers have found the following sleeping arrangements quite practical: The baby sleeps in your bed until he is one year old. In the second year, he sleeps on a mattress spread on the floor by the side of your bed. After he is 3, he sleeps in a separate room, on his own, or along with his older brother or sister, in separate beds.

Teenaged siblings of the opposite sex should sleep in separate rooms.

The above arrangements are based on the knowledge that children develop separation anxiety if they are separated from the mother figure. Between one and a half years and 3 years, they learn that the mother is around somewhere even if she is not to be seen. Hence, it is important to give enough body contact to the child in his first year of life, meet his needs (vocalised mostly by crying) promptly, help him build trust in you and gradually wean him from your bed to another convenient sleeping arrangement in your room and then to another room, preferably adjacent to yours.

Once the child is shifted to his room, he can be brought to your room if he is not feeling well or if he feels scared for some reason. But he should soon be placed back in his room.

Ideally, the older child should be taken to his room for sleeping by the mother or the father. You may read to him or tell him a story. Many mothers find it helpful to say a small, simple prayer together. The child is gently lulled to sleep. Older children are likely to go into a ‘deep sleep’ rather soon and can be left properly covered. Some children are happier if a dim light is kept switched on all through the night.
DR. R. K. ANAND’S GUIDE TO CHILD CARE

If you want the child to go to sleep early, see that he does not sleep during the day. If he is in the habit of doing this, take him out during those hours to an interesting place or a garden for a few days to break his habit of sleeping during the day.

In your bed, the infant can sleep between you and a wall. Otherwise, you can get bed-railings that can protect the child from falling down. For a very small infant, raising the edge of the mattress by putting a pillow underneath it serves the purpose.

Do not worry that you will smother the baby as he lies in your bed. This can only happen if the parent(s) are intoxicated or heavily drugged.

Another reason to have children older than toddlers sleep separately is to avoid them being unwitting witnesses to their parents’ conjugal relations. Psychologists report that children who watch adults having intercourse either can become terrified or can develop undue curiosity about the same. Moreover, children have to graduate from the parents’ room to another room to prepare themselves for moving into the outside world.

Support From Others
Graciously accept the help of your husband, mother and mother-in-law, or indeed any good relative and friend in helping to take care of your baby and relieve you. Let the child bond with your husband, and with his grandparents. Allow the baby to sleep with a close relative or a maid during the day; this will make it easier for the child to sleep with such a person when the mother is not well or when the child must be weaned away from the mother during the night.

Most Sleep Problems Are Temporary
Yes, this is true, except perhaps with babies whose needs for attention in infancy were not met. Children who do not get
attention from their mothers cry themselves hoarse at first, but finally give up and become withdrawn. People may feel that the child has settled down, without realising that instead his personality has been stunted.

**Work With Family Routines**
Although it is ideal that a child goes to bed early, this routine may have to be changed if the father comes home from work late in the evenings and again leaves for work early in the morning. A child must spend time with his father. In such a case, it may be essential to make the child sleep during the day or allow him to remain asleep for a longer time in the morning. The presence of the father definitely helps in prevention as well as in management of common sleep problems.

**Common Sleep Problems**
- Getting up too frequently at night
- Nightmares
- Night terrors
- Sleep walking

**Getting Up Too Frequently At Night**
Most problems associated with sleep can be prevented by caring parents who promptly attend to the needs of the child during the early months of his life and keep a watch on the factors that may contribute to sleep disturbances.

Breast milk is digested fast and so a child may demand frequent feeds in the early months. Parents who do not appreciate this fact may allow the child to cry unnecessarily. Flies and mosquitoes can be a nuisance. A mosquito net may be helpful. Extremes of temperature must be taken care of. If a heater is used in a room, a kettleful of water should be kept on the boil all through the night to maintain the humidity of the room. Otherwise, the child's nasal secretions dry up,
causing discomfort. If the child has a stuffy nose, it should be cleaned and nose drops used as detailed in Common Cold. Physical discomfort in the form of a wet diaper or during teething can add to the discomfort. Excessive activity during the day may also delay the onset of sleep. Any sickness must be attended to, especially ear infection and itching associated with eczema or threadworms, which come out from the anus at night and cause itching over the buttocks. Certain stimulating drugs and caffeine can be responsible for difficulty in sleeping.

Children who slept well in the early weeks of life may suddenly give the mother sleepless nights around the age of 3 weeks, 6 weeks and 3 months. During these periods, some babies have growth spurts when they need to suckle more often to meet their normal demands of milk. On such occasions, you should not presume that your milk is not enough and that you must add artificial milk. This temporary phase passes as you let the baby suckle more often.

Some mothers give the child a heavy meal at night or a feeding bottle in the hope that he will sleep better. This is not desirable and often does not work. Outside milk given in the early months of life can lead to rapid development of infections and allergic diseases. A heavy meal may come in the way of the child going to bed soon.

Consult your doctor if you have tried everything and you still feel that your child has problems sleeping. If he certifies that the child is normal, do consider the possibility that your child may need more body contact.

He may need to breastfeed for many more months and may have to sleep longer in your room compared to other average children.

Any emotional factor at home or school should be attended to. Don’t allow children to watch violent and scary movies on television.
Nightmares
These are seen mostly in preschool children. A child has a scary dream and then he gets up crying. He is fully awake and appears afraid. He may recount the dream and once reassured, go back to sleep.

Night Terror
The child, again a preschooler, suddenly sits up in bed crying. He is not fully awake and is not aware of your presence. He screams as if terrified. He may be sweating and have a very fast heart rate. No effort on your part calms him down. Fortunately, he settles down after 15 to 30 minutes and goes back to deep sleep. When he gets up, he does not remember anything about the whole episode.

Sleep Walking
This is seen mostly in children of school going age. While sleep walking, the eyes appear glazed. They may mumble something that may be difficult to comprehend. Generally, they do not hurt themselves, but care should be taken to prevent injury. Most such children are otherwise normal and the condition disappears in a couple of months. In rare cases, it may continue to adulthood. No treatment seems to help. Homoeopaths claim to be able to treat this condition.

In general, most sleep problems are sorted out by common sense, by listening to the child and by attending to his needs.

★ SORE THROAT (PHARYNGITIS)
Most sore throats are of viral origin. The back of the throat is termed the pharynx. Infection of the pharynx and tonsils is mostly due to viruses. A runny nose, cough, congested throat and redness or watering of the eyes add to the possibility of the cause being viral. Such infections do not need any antibiotics.
**Streptococcal Sore Throat (Tonsillitis)**

A streptococcal sore throat needs to be handled carefully because, left untreated, it can lead to rheumatic fever with involvement of the joints and the heart.

**SYMPTOMS:** The patient has fever, a sore throat, pus points on the tonsils, and enlargement of the lymph nodes below the jaw, but no running nose, cough or redness of eyes.

**TREATMENT:** Your doctor may like to take a throat swab and do a blood test (ASO Titre) to further substantiate the diagnosis. Children with tonsillitis are given a course of penicillin or erythromycin. Antibiotics, if needed, must be given for 10 days.

**SPLINTERS**

A splinter under the skin can be quite painful. To remove it, clean the part and soak it in hot water for about 15 minutes. If the splinter is visible, remove it with a pair of tweezers. If not, use a needle, which should be either heated on a flame and cooled or wiped with spirit, to take it out. Consult your doctor if you fail to take it out yourself.

**STAMMERING**

Stammering may just be the result of a child’s enthusiasm to tell his parents about something. If his parents ask him to speak slowly and carefully and say, ‘What’s the hurry? Don’t stammer. People will laugh at you’, the child will become conscious of the speech. And the stammering will worsen or the child may stop talking.

**MANAGEMENT:** If your child starts stammering, avoid the temptation to correct the speech at that time. Such children often do not stammer if they are asked to recite a poem or sing a song that they have learnt by heart. Encourage that. It gives them confidence and the stammering stops on its own after a couple of months.
Consult a speech therapist if you find that there is no improvement after having waited for 2 to 3 months. Tell all the members of the family and the schoolteacher not to make any attempt to correct your youngster’s speech. Let the expert handle the situation. The results with such help are excellent.

In a rare case, stammering may be inherited. It does not improve spontaneously and instead starts getting worse. Such children must be put under the care of a speech therapist as soon as possible.

★ STRIDOR (NOISY BREATHING)

Congenital Stridor
This is noisy breathing that is present from birth. It can be ignored if the child is feeding normally and looks well in all respects. It resolves spontaneously and does not need any treatment. It is noticed usually after the first week or two and appears to get worse until the age of 3 to 6 months. After the child crosses his first birthday, it usually decreases, to disappear around 18 months. The child’s voice is not affected.

Acute Stridor
Seek immediate medical attention if a child develops a sudden onset of noisy breathing.

Stridor of acute origin is discussed at length under Croup.

Acute stridor could also be due to a foreign body, smoke or severe allergy.

★ TEETHING AND CARE OF TEETH

Teething Does Not Give Rise To Any Serious Illness
One of my teachers used to say, ‘Teething causes teething and hardly anything else.’ It is true. If your child has high
fever or diarrhoea or any symptom worth taking note of, do not ascribe it to teething.

When the actual tooth is erupting, your child may become irritable or may drool a lot. It is also true that children do have more diarrhoea around the period of teething, possibly due to introduction of foods other than breast milk. The food may be contaminated. Because of itching, the child may put things in the mouth that may give him an infection. So we must look for a possible cause for any symptom or an illness that occurs when the child is teething.

**Comfort During Teething**

All your child probably needs is more body contact. Give him something clean to bite. I do not recommend the gels for local application available in the market. A little discomfort is a part of growing up. Let the child start learning this gradually from an early age. At the same time, let him feel secure in the arms of a caring adult during such painful experiences. Rub his gums if he likes it. Wash your hands and use your fingers for this purpose.

If he continues to be irritable, give him a dose of paracetamol repeated after 4 hours, if required.

**Delay In Eruption Of Teeth**

There is a lot of variation in eruption of the teeth. Some babies celebrate their birth with a tooth. Most cut their first tooth around 6 months. Others may do so around one year. However, the gums may start getting ready from 3 to 4 months onwards, giving rise to irritability, a tendency to bite, and drooling of saliva.

So long as the child does not have any associated problems, delayed appearance of teeth is normal.

**Dental Caries**

Bottle-feeding and sugar are very bad for the teeth. Bottle-feeding is especially bad if the bottle is given to the child in
sleep. Some children get more cavities in the upper teeth as the tongue protects the lower ones. Lack of calcium does not give rise to caries of teeth.

Don’t let your child develop a sweet tooth from an early age. To begin with, give no sugar or sweets. Later on, ensure as little intake of sugar as is possible. Chewing gum, eclairs and toffees are worse than sweets because they are likely to remain stuck to the teeth.

When it comes to medicines, choose a tablet (if he has already learnt to swallow a tablet) over syrup.

Breastfed children have a much lesser incidence of caries. I have seen an occasional breastfed child with caries who was given sugar during the day and who slept at the breast while suckling — giving the normal sugar in the milk a greater chance to act on the teeth.

**Dental Hygiene For The Mother**
Ideally, a woman should get her teeth checked up even before she conceives. In case of a difficult pregnancy, the mother who is advised prolonged bed rest may neglect her oral health. During pregnancy, doctors like to avoid dental intervention, especially in the first 3 months. During this period, antibiotics and other drugs are generally to be avoided for fear of probable ill effects of these drugs on the growing embryo. For instance, the antibiotic tetracycline given during pregnancy can result in discolouration of the child’s teeth.

**The Importance Of Baby Teeth**
Many mothers believe that baby teeth don’t require any attention because they will be shed.

Dr. Dinesh K. Daftary, dental surgeon and specialist in oral medicine, points out that this is far from the truth and that baby teeth have a definite role to play. They allow the child to masticate food properly and also allow for the growth of the
jaws and muscles. Baby teeth keep ‘space’ for the next permanent tooth, as it erupts, after the natural exfoliation of the baby tooth.

If the baby tooth has to be extracted or falls before its time, the adjoining teeth will start moving into this gap, leaving a smaller space for the permanent tooth to erupt into at a much later date.

Therefore, it is important to give the child a good oral hygiene habit right from the age of 2 years. Ideally, the mother should develop the habit of wiping her infant’s teeth with a swab of wet cotton after he has been given milk or food, to prevent these from remaining on the tooth surface. After wiping the teeth with a wet cloth or with a wet cotton swab, the toddler may be given a toothbrush or toothpaste to play with. As he grows older, he may start asking for it. Then he may be taught to brush his teeth properly.

Get Your Child Used To The Dentist
Take your toddler with you when you visit the dentist yourself for a non-painful procedure. Let him have a look at the dentist’s clinic, let him sit in the dentist’s chair if he wants to. Some time after his second birthday, take him for a check-up. Then get a yearly check-up done. If he has any caries, let the doctor attend to them.

The doctor may tell your child about the importance of rinsing the mouth after each meal and brushing the teeth at least once a day, especially before going to sleep.

The teeth must be cleaned with a soft brush. The dentist may teach him to clean the teeth from below upwards for the lower teeth and from the gums downwards for the upper teeth. Do not worry if he does not follow this advice. The important thing is to clean each and every tooth properly.

He may need your help for the first couple of months.
Use Of Fluoride
Fluoride does guard the teeth against cavities, but it can also be harmful. It is best to avoid giving oral fluoride preparations to your child. Find out from your dentist if your city’s water supply has enough fluoride in it. If it does, do not use a toothpaste containing fluoride. If not, the dentist may apply a fluoride solution to your child’s teeth or prescribe fluoride toothpaste. In general, the World Health Organisation (WHO) recommends that no fluoride toothpaste be used below 3 years of age. It could be used once a day between 3 and 6 years and twice a day in older children.

Beware Of Misleading Advertisements
Advertisements that show that your child can eat junk foods containing sugars and yet remain free of cavities, provided he uses a particular toothpaste, are misleading. One is surprised at how such unethical advertisements are allowed on television. Also, no toothpaste can guard the family against tooth troubles if they do not follow the basic principles of dental care.

PREVENTION OF DENTAL DISORDERS: Breastfeeding, avoidance of sugar, regular brushing, and dental check-ups are the key factors in preventing dental disorders in children. To prevent the permanent discoluration of the teeth, the antibiotic tetracycline should not be given to pregnant women and to children below the age of 8 years.

Dr. Daftary offers the recommendations of The British Nutrition Foundation Oral Task Force given in the British Dental Journal as guidelines to mothers of babies and young children:
• Brush teeth twice a day.
• Limit the consumption of sugary foods and drinks to mealtimes.
• Avoid cariogenic snacks and sugared drinks between meals.
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- Do not add sugars to bottles of infant formula.
- Do not give drinks containing sugars or other fermentable carbohydrates in bottles or feeders.
- Do not allow babies with teeth to fall asleep when feeding.
- Ensure that, as far as possible, medicines given are sugar-free.

Dr. Daftary strongly advises that the child should not be allowed to develop the habit of drinking cola drinks because these are highly acidic and tend to demineralise the enamel of the teeth.

Teach your school going child to use a wet finger to clean his teeth after a meal whenever proper brushing facilities are not available. The purpose is to remove food particles sticking to the surface of the teeth. No decay of the teeth with bacteria is likely to take place if there is no medium such as food particles or milk sticking to the surface of the tooth.

★ TETANUS (LOCK JAW)

A Rare Disease In Immunised Children

Usually, this disease is seen in rural areas where the umbilical cord is cut with a dirty instrument, or cow-dung is put on the umbilical cord. But it can happen even if the delivery takes place in a hospital and proper antiseptic measures are not taken while cutting the umbilical cord.

SYMPTOMS: Difficulty in swallowing and stiffness of the jaw with difficulty in opening the mouth are present. This may be followed by convulsions or spasms during which the child arches the body backwards, becomes blue and may even die.

PREVENTION: Complete the course of immunisation. Beware of wounds that can be infected with tetanus germs found in the soil and the stools of animals. Special care is needed in wounds due to nails, glass, thorns, dirty blades or...
needles, rusty wires, in gunshot and stab wounds, and in animal bites.

Newborn babies can also get this disease and can even die. Tetanus toxoid given to the mother (one or two injections as per the advice of your doctor) is effective in preventing the disease. Mothers who are not given these shots during pregnancy are also protected to some extent if they were immunised in childhood.

TREATMENT: Clean the wound with soap and clean water and check with your doctor if your child needs a shot of tetanus toxoid. If he is immunised, don’t bother with this for minor household injuries. Even for major injuries, if the child is due for his booster dose of DPT, give him the same instead of tetanus toxoid.

★ THRUSH

SYMPTOMS: This is a fungal infection. It presents as white, curd-like patches stuck to the inside of the cheeks, lips and tongue that cannot be removed easily. They must be differentiated from the normal white coating of the tongue and whiteness of gums, or a white pinpoint spot on the palate (roof of the mouth) in newborn babies.

Thrush can also be seen with a red diaper rash that persists despite treatment. A breastfeeding mother can also get it on her nipples, which can become quite sore. The fungus is the same in all these cases.

SOURCE OF INFECTION: If the mother has vaginal thrush, the newborn baby can develop it in his mouth during his birth. Prolonged use of antibiotics can also be responsible. Patients with AIDS also get such infections off and on.

TREATMENT: Your doctor will advise a local application which must be continued for 2 weeks, even if the thrush seems to clear within 2 to 3 days.
THUMB-SUCKING

Knowing a few facts might put you at ease if your child sucks his fingers or thumb or even his toe. The habit is usually temporary and quite common in normal children. Sucking is a pleasant experience. If, by chance, the child’s finger or thumb goes into his mouth, he starts sucking it. The habit generally disappears by the time the child starts eating solids.

If you do not like your child sucking his thumb, start playing with him and gently take the thumb out from his mouth without making him conscious of it. If you make an issue of it, especially between the age of 9 months and 3 years, when the child is passing through a phase of negativism, you are likely to worsen the situation.

Attend To Any Emotional Factor

In some children, this habit may persist because of some emotional problem. Make sure that your child gets enough body contact from you. Breastfed children may also have this habit, though less often than artificially fed children.

Be extra careful about making a thumb-sucking child feel secure. Give him attention when he needs it. However, you need not necessarily start feeling guilty if your child is sucking his thumb. Though emotional factors are to be kept in mind, most children continue sucking their thumb as a habit.

How To ‘Break’ The Habit

Gentle attempts to wean the child from the habit of thumb-sucking are preferable to aggressive ones.

It is true that if the habit continues when the child starts regular school, we should give extra attention to this problem. Forceful sucking can lead to ulceration of the thumb and wrong alignment of the teeth.

When your toddler continues to suck, tell him that he is no longer a baby and he should now leave the habit. Pat him
when he stops it. If he does it again, give him a gentle reminder. Most likely, he will stop sucking his thumb during the day and later on, he might also stop at night.

Putting bitter medicine or a leucoplast on the thumb does not help much. The child may then start sucking another finger. But discuss it with your child, if he is old enough to understand — if he feels that this remedy helps to remind him not to suck, you may try it.

Whatever you do, make sure that you do not punish the child and put him to shame in front of others. Do your part in providing a secure environment and discuss the problem with your doctor if the habit starts getting on your nerves.

★ TICS

Except for a rare condition called Tourette’s Syndrome, most tics are transitory and disappear within a couple of months.

SYMPTOMS: Tics refer to certain repeated involuntary movements that appear suddenly in some school going children. The otherwise normal child starts blinking, shrugging the shoulders, twisting the neck, coughing, clearing the throat or sniffing. The frequency of these movements can vary from child to child. They do not occur when the child is asleep. Though more common in school children, tics can also be seen in toddlers and preschool children.

In some cases, there is a history of the child having passed through a stressful situation before the appearance of the tics. In others, an illness may have preceded the appearance of these movements.

Parents must remember that children do not undertake these movements on purpose. They have no control over them. The movements take place spontaneously. Hence, the child should not be ridiculed or punished for them. If the parents are patient, the movements disappear within a couple of months.
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Tourette’s Syndrome
In the tics referred to above, the child has the same type of movements all along. In Tourette’s Syndrome, the movements keep changing. Besides the abnormal movements and symptoms given above, the child with Tourette’s Syndrome may exhibit a chewing movement and thrusting of the tongue. Some of these children may have other specific learning disorders and attention deficit hyperactivity disorder (ADHD), discussed under that section.

TORTICOLLIS
Torticollis, wry neck or stiff neck refers to a condition in which the patient keeps the head tilted to one side due to a spasm of a neck muscle.

Torticollis In The Newborn
The typical story is that the mother notices a sudden new swelling, the size of a big marble, on one side of the neck when the baby is about 2 weeks old. This is called ‘congenital muscular torticollis’ or ‘sternomastoid swelling’. The baby is not much bothered by it, but tends to keep the head tilted to one side. The swelling disappears spontaneously after 2 to 4 months. If it persists, that side of the face starts looking different from the other side.

CAUSES: The cause of this condition is uncertain, though it is often associated with a breech or forceps delivery. In some cases, a congenital dislocation of the hip also occurs.

TREATMENT: The treatment consists of stretching the affected neck muscles by slowly moving the child’s head away from the side of the swelling. This is to be done quite frequently, throughout the day. I often tell the mother to do it whenever she changes the baby’s diaper.

If the torticollis persists, your doctor should refer the child to an orthopaedic surgeon who will decide if surgery is
needed. If the torticollis is noticed right from birth or if it persists when noticed later on, your doctor would like to have an X-ray of the neck taken to rule out any abnormality of the vertebrae, which may call for surgery.

**Torticollis In Older Children**

This is usually due to an unusual posture, an injury, as secondary to a sore throat, due to a problem with the spine or due to a drug given to check vomiting. Check with your doctor if any investigation or treatment is required.

★★ **TRACHEOESOPHAGEAL FISTULA (TOF)**

A Rare Condition Needing Urgent Attention

I would not have written about this condition but for the fact that you may be the first one to suspect it before the nurses or even the doctors think of it.

If your newborn baby has excessive salivation or coughs or vomits each time you give him a feed, draw your doctor’s attention to these symptoms. Most likely, the cause will be something simple and not TOF. However, early diagnosis of this condition is important to allow your doctor to take further steps to help your baby.

★★ **TROPICAL EOSINOPHILIA**

This is a disease that can be confused with tuberculosis, asthma, and cough related to roundworms.

SYMPTOMS: Persistent or recurrent cough that gets aggravated at night, weakness, loss of weight and low fever raises the possible diagnosis of this disease.

If you live in Bihar, Uttar Pradesh, West Bengal, Assam, Kerala or Tamil Nadu, doctors would first rule out this easily treatable condition before thinking of other diseases like tuberculosis or asthma. Tropical eosinophilia is more common in these states because of a higher incidence of filariasis.
in these regions. Tropical eosinophilia is considered a manifestation of a species of microfilaria.

Some children with this disease may also have enlargement of the glands in the neck and elsewhere. Others may cough up a little blood. The child may also have a wheeze.

DIAGNOSIS: The diagnosis is made by doing a blood test which shows an absolute eosinophil count of more than 3000 eosinophils/mm³. For example, if the total white blood cell count is 20,000/mm³ and the eosinophils are 20%, the absolute eosinophil count shall come to 4000/mm³. In many cases, the child with this condition has a typical chest X-ray.

Children having roundworms may also have a similar sort of cough. But in all conditions that resemble tropical eosinophilia, the absolute eosinophil count is not so high.

TREATMENT: The dramatic response to a commonly used drug for filaria (diethylcarbamazine) almost confirms the diagnosis.

★ **TUBERCULOSIS (TB)**

Though common in children from poorer homes, I have seen quite a few children with tuberculosis from the higher socio-economic group. Fortunately, we now have excellent drugs available for the treatment and, if diagnosed early, the prognosis in most cases is excellent.

SYMPTOMS: The following are the symptoms that should alert us to the possibility of the child having tuberculosis. But don’t jump to conclusions because similar symptoms can also be found in many other conditions.

- Persistent unexplained fever, cough, loss of weight and appetite.
- Enlarged glands in the neck or armpits or groin, which seem to get stuck to each other (not discrete and
separate from each other). They may also get stuck to the overlying skin.

- Pain in the chest with pleurisy (infection of the pleura covering the lungs), unexplained swelling of a bone or joint, and backache.
- Persistent pain in the abdomen with diarrhoea or a swelling in the abdomen.
- Persistent headache, vomiting, convulsions or disturbed consciousness.
- Unresolved pneumonia or glands noticed in X-ray of the chest.
- Contact with an adult having tuberculosis.

Tiny little palpable glands in the neck or elsewhere should not be confused with tuberculosis. They are often secondary to some local skin infection rather than tuberculosis, or due to diseases like chickenpox or lice in the head.

Pain in the abdomen is mostly due to causes other than tuberculosis.

DIAGNOSIS: Confirmatory diagnosis can only be made by demonstrating the presence of TB germs. That is not always possible.

A Mantoux Test (Tuberculin test) is asked for. It should not be done with 10 TU or 100 TU as is sometimes ordered by some doctors. That may give false positive results. The test should be done with 5 TU. Some recommend it with 1 TU, but we find that with 5 TU, we are more likely to detect cases needing more careful follow-up or treatment.

A positive test does not necessarily mean that the child needs treatment for tuberculosis. We have to examine the patient in totality, including the presence or absence of a BCG scar, the symptoms, general condition, history of contact, and results of other tests including the X-ray of the chest, examination of pleural fluid in case of pleural effusion.
(collection of fluid between the coverings of the lungs), biopsy of the gland or bone, examination of cerebrospinal fluid (CSF) in case of suspected meningitis, etc.

The CSF is taken out by tapping the space between the two lower spinal vertebrae with a lumbar puncture needle.

In absence of other features, a child with a positive Mantoux Test of 10 mm. or more in the presence of a BCG scar is weighed on the same scale every month. If he remains fit and continues to gain weight, no treatment is given.

TREATMENT: Most cases of tuberculosis are now treated with 3 anti-tubercular drugs to begin with. One is given for 2 months and the other two for 6 months or more. One of these two is given on an empty stomach. Do not be surprised if it makes the child’s urine appear red; this is normal.

As these drugs can cause liver damage in a small number of patients, your doctor may keep an eye on your child’s liver functions as and when required.

Some children have only mild liver dysfunction, but others can develop jaundice and severe liver damage. In such cases, the doctor will make significant changes in the treatment.

For parents, the most important aspect of the treatment is to see that the treatment is not stopped prematurely.

After a month or two of treatment, children often look completely normal and some parents become lax about regular treatment. This can be hazardous. The organisms can develop resistance to the drugs and they may not remain as effective as before.

Management Of Contacts With A Case Of Tuberculosis
All the contacts must be subjected to a tuberculin test. Your doctor will then decide whether the child needs any further investigation or medication.
A newborn of a mother having active tuberculosis should be given BCG and kept apart from her as much as possible for about 3 months. The child is to be kept under close supervision by the doctor. Breastfeeding should be continued. If the disease was diagnosed during pregnancy or soon after delivery, your doctor may ask for a tuberculin test and a chest X-ray to rule out a congenital infection being present from birth.

★ TYPHOID

SYMPTOMS: Continuous fever (39°C – 40°C) without symptoms of cold and cough, but with headache, loss of appetite, dullness, constipation, coated tongue, and delirium points towards typhoid. History of contact with a patient having typhoid at home further adds to the suspicion. Some patients may feel chilly and have a slight cough. The abdomen may be slightly bloated. Later in the disease, the child may develop loose motions. Your doctor will take note of the above features and would find an enlarged liver and spleen towards the end of the week.

Confirmation Of Diagnosis And Treatment

No antibiotic should be given before collecting a blood sample for culture. The hospital laboratory should be requested to observe the culture for one week as the organism may sometimes take time to grow. In case of a strong suspicion, your doctor may decide to start the appropriate antibiotic while waiting for the report. It may take 6 to 7 days before response to the antibiotics is noticed. If the blood grows typhoid organisms, the laboratory will test for the drugs to which the organisms are most sensitive. Then your doctor may decide to continue the same medicine or change over to a new one that may also take a couple of days to show a positive response.

Before the culture report comes, a total white blood cell count of less than 4000/mm³ may also be supportive of the
diagnosis of typhoid. Another test commonly asked for is the Widal test. This becomes positive in the second week, but the result of this test loses its reliability if the antibiotics have been started too early in the course of the disease.

Paracetamol may be given for symptomatic relief of fever and headache. Sponging of the body with warm water can be done for lowering the temperature.

PREVENTION: The source of infection is contaminated water, ice, food (including canned foods) and milk. The patient continues to pass the germs of the illness in the stools for upto 3 months afterwards. Proper hand washing is essential.

Water must be boiled and cooled before being consumed. Do not listen to those who say that on some occasion you may have to take unboiled water outside, and so it is useless to take boiled water at home. You must note that a large number of typhoid germs would need to be swallowed to start the disease process. So we should always aim at cutting down the bacterial load as much as possible.

Read the chapter on IMMUNISATION for vaccination against typhoid.

★ UMBILICAL PROBLEMS

Umbilical Granuloma
You may notice that, after the umbilical cord of your newborn has fallen off, a red moist swelling is left behind. This is the umbilical granuloma.

The standard practice is to touch it with a silver nitrate stick to dry it, but a simple method propagated by Dr. Nirmala Kesree and her colleagues from Davangere in Karnataka works quite well. Just put a crystal of rock salt (cleaned with boiled and cooled water and dried) on the swelling. Keep it in place with leucoplast or a band-aid. The swelling disappears within a few days in most cases.
If no improvement is noted by use of these methods, a minor surgery may have to be undertaken.

**Umbilical Hernia**

This is quite common and does not need any treatment in most cases.

This hernia becomes more prominent after the child cries. Crying results in increased intra-abdominal pressure. This pushes the abdominal tissue through the umbilicus because of a small gap in the abdominal muscles in that region.

This hernia should be left alone. You may be advised by others to put a coin on the swollen part and tie it up. This is not required. In fact, if a leucoplast is used to keep the coin in place for a number of days, your child may get an itchy rash on the skin.

The swelling generally disappears by the time the child enters his second year. In rare cases, surgery may be required.

★ **UNDESCENDED TESTIS**

Soon after the birth of a male child, both the testes can be felt lying inside the scrotum. Sometimes, the scrotum may appear ‘empty’ on one or both sides. The reason could be varied.

In the foetus, the testes lie inside the abdomen. They come down just before the expected time of delivery. If the baby is born before the expected time, it may take some time before we can feel the testes.

Some testes are called ‘shy’ testes or ‘retractile’ testes. These are normally present in the scrotum but as soon as the scrotum is touched, especially with cold hands, the testes tend to go up into the abdomen, making the scrotum appear empty. Such a testicle does not need any treatment. This child will have a normally functioning testicle.
If one or both testes are really missing from the scrotum, we wait until the child is 1 year old. If after that, it cannot be felt on one or both sides, it is advisable to see a surgeon, preferably a paediatric surgeon. If the surgeon is convinced that it is undescended, surgery will be advised to bring it down and to fix it into the scrotum. Although some surgeons believe in postponing the surgery till the age of 2 or 3 years, paediatric surgeon Dr. Jyotsna Kirtane believes it advisable to operate at 6 months, because electron microscope studies have revealed that the undescended testis may undergo degenerative changes after 6 months.

If both the testes are not felt, and the clinical examination reveals some doubt, the doctor may ask for a test to determine the sex of the child.

There are two possible risks involved in leaving the testes inside the abdomen. The first is degeneration and infertility, and the other is the development of cancer of the testes.

Here a passing reference may be made about uneven testes in an adolescent. Assure your teenage that it is quite normal for one testis to be lower than the other.

Children with undescended testes may have an associated hernia, which is seen as a swelling coming up in the groin whenever the child cries or strains. In such cases, it is advisable to operate on the undescended testis as early as possible, because hernia in a small infant tends to get obstructed.

★ URINARY INFECTION

The Importance Of Diagnosis

Remember the following important facts about urinary infection:

• It is not an uncommon disease.
While proper diagnosis and treatment can help, carelessness in its management can lead to malnutrition and kidney damage.

A routine examination of urine may suggest a possibility of infection, but it must be confirmed by urine culture and colony count of bacteria. The diagnosis is clinched if the count is 1 lakh colonies or more per ml. of a single organism. If the count is of this order, a sensitivity test must be done to select the right drug for treatment.

The diagnosis is considered in a child with unexplained fever, frequency of micturition (urination), painful urination, unexplained loss of weight, or failure to gain weight.

Isolated preauricular tags (tags of skin in front of the ear) may be associated with urinary tract abnormalities. A urinary tract ultrasonography should be conducted in such cases.

The urethral opening (opening of the urinary tract above the vagina) is quite near the anal opening in a female child. Parents should clean the anal region after the passage of stools, in the backward direction, away from the urethral opening. Children should be trained accordingly.

As long as you change diapers when they need to be changed, the incidence of urinary infection is not affected by whether you use cloth or disposable diapers.

Collection Of Urine Sample

Urine for culture must be collected in a sterile bottle procured from the hospital. A sample must be taken as per the direction of the hospital. A morning sample is not essential. The sample must be taken to the laboratory immediately after collection. If that is not possible, it should be kept in a refrigerator.

TREATMENT: Once a diagnosis is confirmed, the child is given the appropriate drug.
A close follow-up is essential. Urine culture is done a week and 2 weeks after the start of treatment. If the urine is normal, a culture is done once a month for 3 months, once in 3 months for 1 year and then twice a year as long as possible.

In all male children, a sonography for the urinary tract and a cystoureterogram (an X-ray taken after putting a dye into the bladder) is undertaken a month after the diagnosis is made and treatment has started. The same tests are conducted in female children below the age of 5 years, if they get another attack of urinary tract infection.

If any abnormality is found in these two tests, an intravenous pyelogram should be done. In this test, the dye is given into the vein and its excretion is followed in the kidneys, ureter and bladder.

Children who get 3 infections in a year are put on a single small dose of a drug, every night, for 2 years or more.

Less frequently, surgery is indicated in cases of persistent infection, or where abnormalities of the urinary tract need to be tackled surgically.

★ VAGINAL DISCHARGE

Normal Discharge
Newborn babies and older girls (when they are likely to start getting their periods) often have a clear, white, odourless discharge without any itching or burning. This is normal and needs no treatment except frequent changing of undergarments.

Discharge That Smells Or Gives Rise To Irritation And Burning
In adolescents, this sort of discharge needs to be correctly diagnosed and the child should be shown to a gynaecologist.
In younger children, it is often due to lack of proper cleanliness, a bubble bath, nylon undergarments or threadworms. Rarely, it could be associated with a foreign body in the vagina, fungal infection, diabetes, masturbation or sexual abuse.

A urine examination should be undertaken if the child also complains of burning while passing urine.

**VOMITING**

**Vomiting In Normal Children**

Quite a few small infants as well as older children vomit once or more during the course of the day but remain otherwise well. It seems that they have a rather more sensitive vomiting centre in the brain. They vomit even if they seem to have no other problem. They vomit if they are excited, unhappy, fearful or because of any illness. The vomiting becomes less frequent as these children grow and then stops without any special treatment.

Parents must not show undue anxiety when the child vomits. This may make matters worse. A typical scene is witnessed when a child is getting late for his school bus and his mother wants him to finish his glass of milk. He tries to gulp it in a hurry and brings most of it up. Giving solids before the child is ready for them, or forced feeding in children are other common causes. The child should never be forced to eat or drink in such situations. Older children should be put to bed early at night so that they get up well in advance, before the school bus arrives. If the child hates to drink milk in the morning, do not insist that he has it.

Even if there is enough time, an occasional child does not want to eat anything in the morning. In general, I would like children not to go to school on an empty stomach. I would suggest offering the child some fruit or fruit juice. If he refuses that, give him some healthy snacks (fresh fruits, dry...
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fruits, nuts, or a sandwich made with whole wheat bread) to take to school for his short recess.

Some infants swallow a lot of air while feeding and bring out milk quite often after a feed. Some are helped by burping. Others vomit as soon as they are lifted up to be burped. Check the position of these babies at the breast so that they have enough of the areola (the dark portion of the breast behind the nipple) in their mouth.

If bottle-fed, change over to cup feeding (which is better than spoon feeding). If you must bottle-feed, check that the hole in the nipple is not too small.

Some babies bring up curds after each feed or after some of the feeds. They are otherwise well — thriving, active and passing urine normally. This is called possetting and is normal. Nothing should be attempted to set it right. Maybe you can buy some more bibs!

However, consult your doctor if your child is dehydrated following vomiting. He may like to treat the cause and give intravenous fluids if required.

A dehydrated child looks sick and passes too little, dark urine. You should be equally concerned if he shows lack of alertness or behaves as if he were not fully conscious. This could be due to meningitis.

Three Common Causes Needing Attention
• Obstruction of the intestinal tract due to surgical conditions
• Infection
• Head injury

Obstruction Of The Intestinal Tract Due To Surgical Conditions
Consider the possibility of an intestinal obstruction if a small baby brings up green vomit. Do not give this child anything to
eat or drink and take him to your doctor. Such children may also have distension of the abdomen and dehydration.

In a condition called pyloric stenosis, the child may present with white projectile vomiting and failure to gain weight.

An intussusception and appendicitis discussed under Abdominal Pain are also to be kept in mind.

Infections
An infection of the stomach and intestine (gastroenteritis) is the commonest infection resulting in diarrhoea and vomiting. This is discussed at length in the chapter on HOME REMEDIES.

Suspect hepatitis (see Hepatitis) if your toddler or older child has developed marked loss of appetite and passes high coloured urine.

A small baby who stops taking his feeds, vomits and looks unwell may have septicaemia — a serious type of infection. It may or may not be accompanied by fever.

An infant showing the above symptoms with a bulging soft spot (anterior fontanelle) on the head, with or without stiffness of the neck, may have meningitis, needing urgent treatment (see Meningitis).

Children with whooping cough also tend to vomit after a severe bout of coughing. Ear and urinary infection may also be associated with vomiting.

Seasonal vomiting, probably due to a viral infection, may affect a large number of children in a city. These children do not have any of the serious features mentioned above and settle down with symptomatic treatment of the vomiting in 2 to 3 days.

Some other causes of vomiting are poisoning, travel sickness, gastro-oesophageal reflux and migraine. Some
children with allergy to artificial milk can get a severe attack of vomiting with even small intake of milk. Many drugs, like antibiotics and drugs for diarrhoea and other illnesses, may cause vomiting.

Head Injury
One vomit after a head injury in a child who is otherwise well can be ignored. But the doctor must be consulted if the child continues to vomit.

Blood In Vomit
Some children bring out a streak of blood with a forceful vomit. This need not cause undue anxiety. But if it becomes a common feature, your doctor would consider the possibility of conditions like hiatus hernia. Of course, if bleeding is also noticed from other sites, a bleeding disorder has to be kept in mind.

TREATMENT: Treatment depends upon the cause. No drug for vomiting should be given without the advice of your doctor. If your doctor decides to give a medicine to check vomiting, do not give anything by mouth for an hour. By then, the drug will have started acting and you can give small amounts of a drink or the child’s favourite fruit or food. Do not give too much at a time. Give small amounts but offer them at frequent intervals.

A child may occasionally get a peculiar side effect due to the commonly used drugs for vomiting. He may roll his eyes upwards and his whole body may go into tonic spasms. Fortunately, almost all cases recover after the drug is stopped. Some patients are given another medicine to counteract the effect of the earlier drug.

WHEEZING
A wheeze is a high-pitched whistling sound associated with breathing due to narrowing of the air passage.
This is to be differentiated from noisy breathing due to partial blockage of the nose or due to the collection of phlegm in the windpipe or its branches.

CAUSES: Most cases of recurrent wheezing are due to asthma (see section on Asthma in Allergies). A viral infection called bronchiolitis affecting smaller infants can also present as a wheeze. In older children, tropical eosinophilia is also a common cause. A foreign body in the airway or a gland (due to tuberculosis or any other cause) pressing on the airway can also give rise to a wheeze.

MANAGEMENT: If you suspect that your child is wheezing for the first time in his life, let a doctor confirm it. Do not give any medicine on your own.

If the child is not crying, the doctor will be able to hear the wheeze well with his stethoscope. Hold your child up in your arms with his head on your shoulder. Do not undress him. Let the doctor listen to his back first and then notice his breathing.

If your doctor confirms that it was a wheeze, he may give the child an injection, or a medicine with a nebuliser, or by mouth (see Asthma in Allergies) and wait for the response. If he finds dramatic improvement, he may suspect that the child has asthma. If you know that your child gets recurrent wheezing, you must follow the advice given by your doctor. You may also like to read the section on asthma. If he considers that tropical eosinophilia should be ruled out, he may ask for a blood test.

WHOOPING COUGH (PERTUSIS)

SYMPTOMS: In a typical case, the child with whooping cough gets severe bouts of cough. He coughs and coughs, his face becomes red, he grasps something for support and then makes a funny kind of sound (a ‘whoop’), as if he were taking a deep breath in, through the partially-closed upper end of his
windpipe. The whole episode is often followed by a vomit. Children who have had whooping cough vaccine as a part of DPT, either do not get the disease or get it in a milder form without the typical whoop and the vomit. A history of contact with a case of whooping cough aids in making the diagnosis.

MANAGEMENT: I would not delay the use of antibiotics in whooping cough. The drug of choice is erythromycin, which is started as soon as the diagnosis is made. The drug is more effective if started early in the course of the disease. Some believe that it does not help the patient, but reduces the infectiousness to others. I beg to differ and feel that it is helpful and should be given in full dose for a period of 2 weeks. I have also found a drug, salbutamol, commonly used for the treatment of asthma, to be of help in reducing the severity of the bouts of cough. A calm, smokeless environment is of great help to a small baby. The mother’s lap is a great comfort for the child. A feed given soon after a vomit is often retained.

If people in contact with the baby are given erythromycin for a period of 10 days, they are likely to be protected to a significant extent.
PSYCHOLOGICAL CONCERNS

Your child will go through different stages in life that may cause you concern because of the things she says or does or does not do. Most of these manifestations are just a part of growing up and require you to do nothing but handle the situation calmly.

In many areas, a concept of readiness applies. The child will not do something or not move on to another stage of behavioural development till she is ready for it. This applies especially to toilet training (discussed hereafter) and age-related masturbatory tendencies, stealing and swearing. In all such behaviours, the main management technique is to distract the child and not to draw her attention to them.

DAYDREAMING

To a certain extent, daydreaming is normal. There is need for concern only when it becomes so frequent that it starts interfering with your child’s normal activities; especially if she stops taking interest in her studies, stops interacting with others, becomes withdrawn and seems to live in her own world of fantasy and dreams.

A child who is dull may daydream because she cannot cope with her studies. On the other hand, a child with superior intelligence may daydream because she finds her lessons too simple.
A child who has problems because of the wrong attitudes of parents and siblings may daydream. She may have fantasies of revenge, although she may also feel guilty for such uncharitable thoughts towards her near and dear ones. A child who has too much free time may also daydream. Keep her occupied with activities that interest her. Talk to your doctor if you feel daydreaming is becoming a problem with your child.

LYING

When your 3-year-old tells you with mischief in her eyes that she is not at home, she is not lying; she is playing a game with you. Similarly, a preschool child may make up tall stories to amuse herself or to amuse you. Do not take this seriously. However, you can’t afford to ignore the situation if she tries to deceive you by being untruthful.

Still, don’t be in a big hurry to punish her. First, try and find out why she would want to tell a lie. When she broke the glass last time and owned up, did you praise her for speaking the truth and tell her to be careful in future, or did you beat her up for her carelessness? If she was punished for being truthful, she may have decided not to admit her mistake and instead tell a lie.

Trouble at school or at home may also cause a child to take recourse to lying. Young teenagers may leave home to go to school or college and instead land up elsewhere. When confronted, they may lie.

Parents who are not honest themselves can hardly expect truthfulness from their children.

Children must get the message that we all make mistakes and should not hesitate to own up to them. Teach your children to learn from their mistakes and then move forward; they should never be so afraid of the consequences that they need to lie.
TOILET TRAINING

Do not force an unwilling child below the age of 2 to sit on a potty or a toilet seat, but attempt the process of toilet training in a gentle way at an early age.

Most babies will pass a motion or will pee after getting up from sleep or after a feed. Take advantage of this knowledge. Take the child near the toilet. Hold him over it. Make a hissing noise. Wait only for a short while. He may oblige you by passing urine with or without stools. If he does, you have saved a nappy and reduced the risk of your child getting a nappy skin rash. If he does not, let it go.

Some babies who respond may do so because of a ‘conditioned reflex’. In our rural areas (and also in some urban homes), I have seen the mother (or the grandmother) sit down on the floor with her legs straightened in front of her. She makes the small baby sit between her two legs nearer her ankles. The baby faces her, and her upright feet support the baby’s back. The baby often passes urine and/or a motion on newspaper in this position.

When the child is able to sit independently, buy a bright-coloured potty that sits on the floor. Place it near a wall, and put the child gently on it as soon as she wakes up or after she has had her feed. Sit near her or have your maid sit near her. Give her a kiss if she passes urine or a motion. Do not look annoyed if she doesn’t.

As she starts walking around, you will be able to make out when she is ready to pass stools or urine. She may suddenly stop running. Her facial expressions may change. She may point towards her genitals. Take a cue from her signals. Quietly remove her diaper and help her sit on her potty. Do not force her if she does not want to. If she wets her clothes before you can march her towards the potty, do not scold her. Give her a kiss when she does oblige by passing the motion or urine in her potty.
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Your son may show interest in passing urine while standing up as he grows, usually after he observes an older sibling doing it. Your husband may also show him how. (However, psychologists opine that it is not advisable for parents to keep exhibiting their genitals before their children. If the child sees them by accident, do not give the incident undue importance.) He may now want to sit on an adult toilet seat. Put a small training seat on it; this is easily available in the market. Do not flush the toilet while he is sitting on the seat. Some children get scared at this; they fear that they may get sucked into the toilet.

Most children use the potty and later the toilet seat properly between 2 and 3 years of age.

I have also noticed that a child who is encouraged to pass urine just before bedtime at night and again as soon as he gets up in the morning may have a dry night as early as the age of one year. However, we must remember that some children will wet their bed normally even at an older age, as discussed under Bed-wetting in THE A - Z CHILDHOOD ILLNESSES.

MASTURBATION
Masturbation is a normal phase in most children’s lives. It is not a behaviour problem unless parents make it so by mismanagement. In fact, according to Dr. Mahinder Watsa, consultant in sexual medicine, masturbation as a means of relieving sexual tension is a better substitute for sexual intercourse before marriage than indiscriminate sexual encounters.

Age Incidence
Though more common during the adolescent period, masturbation or self-stimulation of the genitals is practised at all ages — even in infancy and among both male and female children. Most children stop masturbating after a year or so. It
may be noticed more frequently to begin with, then becomes less frequent and finally stops.

Masturbation must be differentiated from just touching the sex organs or handling them. This is a phase through which almost every child passes. Do not shout at her for this. At the most, you may distract the child by giving her something else to handle.

In a typical case, masturbation begins with rhythmic movements of the hip while the child is lying on her back or stomach. Later, she rubs her thighs together, keeps rubbing them, her face becomes flushed, and she appears to be lost in her world, looking constantly in one direction and finally sweats (as if she has had an orgasm) before the whole act ends. If the habit continues for some time, she may press against any piece of furniture and repeat the act.

CAUSE: I have not found any obvious cause. All the children’s parents have been very caring, though some confessed that they might have made the child conscious of the act, which might have made matters worse. However, rule out any local irritation and feelings of insecurity in the child. Your doctor will try to rule out conditions like diaper rash, fungal infection of the genital area, eczema and itching due to threadworms.

MANAGEMENT: Nothing need be done with smaller children. It is likely to stop on its own. Be extra careful with adolescents. First of all, the parents must understand that most often, masturbation is a normal passing phase. Masturbation does not mean that the child has become a pervert, that he/she will become weak, or has fallen into bad company. The only thing that parents can do is to make sure that the child does not become guilt-ridden or obsessed with the subject.

The child must receive sex education from the parents or from another appropriate source. The teenager must be
encouraged to take part in sports and other outdoor activities. At an opportune time, you may discuss the purpose of living without ever making your young friend feel ashamed for taking recourse to masturbation.

However, if you feel ill at ease with the situation, do discuss the subject with a counsellor. The counsellor may find that the child is passing through a stressful phase in his/her life. The child may have been sexually abused.

Take note however if the masturbation is excessive or if the child also does it in public.

STEALING
A toddler does not understand the difference between her own property and someone else’s. But as she enters the preschool age, the concept of ‘not taking what belongs to others’ should be gently but firmly built into her evolving personality. By the time the child enters school, it should be made absolutely clear to her that we have no right on the property of others. Anything belonging to others must be returned. If parents or teachers ignore minor offences, the habit may continue and may land the child in serious trouble later in life. Therefore, a toddler’s act of possessiveness can be ignored, but the older child’s attempt at stealing must be nipped in the bud.

Disturbed family life, problems at school, poor parental example, bad company, ‘not enough’ pocket money and strict parents or teachers, are all cited as possible causes responsible for stealing.

A child is not likely to fall into the habit of stealing if you meet her emotional needs. Discipline her in an atmosphere of love and trust.

Professional help must be sought if the habit seems to be becoming frequent.
SWEARING
Small children pick up words like ‘hell’, ‘shit’, ‘bullshit’, ‘sala’, ‘idiot’, etc. from adults without even knowing their meanings. Foul language or dirty words can also be learnt from friends. Minor swearing is not uncommon among school children. Do not be too concerned as long as the child does not swear at others.

Parents who do not swear, even if upset, have a right to tell their youngster to stop it. If your son or daughter still swears, deal with him or her firmly. (See the section on Discipline in the chapter on MEETING THE EMOTIONAL NEEDS OF CHILDREN.) Some parents will tolerate their son using dirty words, but not their daughter. They may even say, ‘Girls are not supposed to use such language!’ This is not the right approach. Both boys and girls need to be handled in a similar manner.

Some parents become furious on hearing dirty words. They may hit the child in anger or may use even more foul language. Such an impulsive reaction could have the opposite effect on the child’s behaviour and should be avoided at all costs.

Ignoring a toddler who uses a dirty word, and firm handling of your older child is all that is required in most cases.

HOMOSEXUALITY
Parents’ fears that their adolescent may be ‘gay’ are usually unfounded. Their suspicions are usually aroused by their children cross-dressing (when a son dresses like a girl, or a daughter like a boy) or if they behave like the opposite sex. It is the stereotypical roles assigned to the two sexes that lead to such false notions. Our society has set norms that suggest that a boy cannot shed tears and that a girl cannot climb a tree. This has to change.
Most of us have a masculine side as well as a feminine side to our personality. We must cherish both these aspects. Why can’t a man be tender and a woman strong and yet tender?

Conditioned by societal stereotypes, a teenager may wrongly believe himself to be homosexual because he finds another boy, or a male teacher, or an actor, or a sportsman attractive. Some teenagers who think that they are homosexuals or lesbians may disclose their sexual orientation in their late teens; others may never reveal it.

Parents who are faced with a youngster who is not sure of his or her sexual identity must sit down with the child and explain that it is quite normal to appreciate the good qualities in a person of the same sex and feel attracted towards them and that it could be a passing phase.

**No Easy Answers**

Here are a few suggestions on handling the situation if your son reveals that he is homosexual or your daughter informs you that she is a lesbian.

- Do not reject your youngster. Continue to love and support him or her. Treat him or her as you would a heterosexual youngster.
- Share with him or her your anxieties about his or her adjustment to the society in which he or she has to live, or the increased risk of AIDS and other sexually transmitted diseases among homosexuals. The risk is more because if a homosexual practises anal intercourse instead of vaginal intercourse, the mucus lining of the rectum is more likely to be damaged than that of the vagina.
- If you strongly feel that homosexuality is unnatural, tell them so. But respect the decision they have taken to acknowledge a different sexual orientation, and do not treat it as a purely psychological concern.
- Consult a counsellor if you and the child find it difficult to handle the situation.
SUICIDE
Cases of suicide among teenagers are on the rise.

Do not take it lightly if a teenager attempts suicide or talks about it. Even young school children may seem suicidal. Although these may simply be attempts to get more attention from you, take these calls for help seriously.

Sit down and talk to your child. Ask her if she is passing through a rough time. Is she unduly depressed, hurt, upset, angry? Does she feel hopeless or uncared for? Has she failed in a test, lost a friend or a close relative? Is she disturbed about fights at home? Has she done something she feels guilty about? Spend more time with a child who seems withdrawn or depressed.

After A Suicide Attempt
If your son or daughter has attempted suicide, you must get professional help immediately. Talk to your paediatrician who may refer the child to a psychiatrist or a psychologist-cum-family therapist. Do not be ashamed about visiting a psychiatrist or psychologist. It is important to visit these professionals before things get out of hand. However, take these steps under the guidance of your paediatrician or family physician.

Some schools also have expert counsellors who can be depended upon. These experts will help build your youngster’s self-esteem. Counselling of parents and the child is all that is needed in most cases. Youngsters with serious psychiatric problems may, however, also need some medication.
MANAGING A HOSPITAL STAY

Do not delay rushing your child to the nearest reliable hospital in an emergency.

What Is An Emergency Situation?
Your doctor will usually advise you on this; but in the absence of a doctor, if you feel that your child’s condition has suddenly taken a turn for the worse, act on your instincts and take her to a hospital immediately. An experienced relative or a neighbour may also be able to help you take an appropriate decision in such a situation.

The decision to admit a child to a public or private hospital should depend on the urgency and seriousness of the situation, the accessibility of the hospital, the facilities available and the cost of treatment. If a public hospital is nearer your home and the child looks serious, do not hesitate to take the child there. This is especially true in cases of accidental injuries where the police are involved. You can shift the child later to another hospital, if required. If the hospital has a casualty department, go directly over there. The Casualty may be indicated in a local language like ‘Apghat Vibhag’ (in Hindi). If you cannot find it, go directly to the children’s ward.

If you are travelling and need medical care in a remote area, in a village or a small town, go to the nearest Government Primary Health Centre.
Talking To Your Child About Hospitalisation
If your child is older than 3 years, it is best to explain to her why you have decided to take her to the hospital. She should never ever get the impression that she is being hospitalised because she was naughty or careless.

Visiting The Hospital In Advance
If it is not an emergency admission, you and your spouse may like to visit the hospital to meet the doctor and nursing staff; to find out about the facilities available and also to get an idea about the expenses involved.

The Hospital Stay
In India, the mother, or any other relative close to the child, is allowed to stay with her in the hospital. Besides, you can get a pass for a visitor.

At the time of admission, you may be asked to fill a consent form to permit any investigation or operation. Read it carefully before you sign.
DR. R. K. ANAND’S GUIDE TO CHILD CARE

If the child is too sick, she may be sent straight to an intensive care unit. You are usually not allowed to stay with the child in such a set-up. But if you feel that she will do better with you by her side, discuss it with your doctor who may give special permission for you or someone else to be with the child. Since you will have to sit up all the time in intensive care, have someone take turns with you.

Daily Routine In The Hospital
A friend once said of hospital that it is a place where they wake you up to give you your sleeping pills. Indeed, in most hospitals, there is a time for a sponge bath, for recording temperature and pulse, and for taking medicine. If this schedule disturbs your young child, discuss it with your doctor and the sister-in-charge of the ward and together work out a routine that is convenient for your child and yet does not unduly upset the hospital routine.

For example, if your child had a disturbed night and went to sleep in the early hours of the morning, request the nurse on duty to avoid giving her the sponge bath at the usual time. If the nurses are too busy to do this later, take on the responsibility yourself.

Avoid crowding the bedside with visitors, except during the visiting hours.

Also remember that nurses are human too. Ignore an occasional shortcoming if the nursing staff and the rest of the hospital staff are cooperative on the whole. If someone is persistently rude, however, do inform your doctor to do the needful.

Keep Yourself Informed
You have a right to know what drugs your child is getting. If a drug is to be given at a furred time, see that the nurses give it accordingly. A few minutes’ delay may be
over-looked. Take permission to give the medicine yourself, if you prefer this.

Similarly, keep an eye on the intravenous fluids being given. If your child is right-handed, let the intravenous drip be started in the left hand. Find out at what rate the fluid should run (drops per minute). If the flow changes suddenly, report it to the nurse. Inform the nurse when a small amount of fluid is left in the bottle, so that she can stop it in time or get another bottle ready, if need be.

In short, keep an eye on the treatment being given to your child. Mistakes can happen because of lack of communication, and the child may be given a medicine that the doctor had ordered to be stopped. Therefore, do not leave everything in the hands of the hospital staff. Trust them, but do not hesitate to politely point out any mistake that you may notice in the management of your child.

Also let the doctor know if your child is allergic to any particular drug. Indicate it prominently on her case papers. Inform the staff if your child has G-6-PD deficiency. Children with this problem can have serious reactions to certain drugs.

The doctor may prescribe a certain diet for the child. If there are no such restrictions, discuss with the hospital dietitian what your child would prefer. You need the doctor’s and hospital’s permission to have food brought from home.

Investigations
Children older than 3 should be briefed about the tests that may have to be conducted. If you are apprehensive about blood collection for testing, leave the room when this is being done. But if you feel that your child will feel more secure in your presence, your doctor may allow you to be present.

Ask your doctor in advance if there is any need for fasting before a test. For tests like ECG, ultrasonography, a CT
(computed tomography) scan, MRI (magnetic resonance imaging) or echocardiography, the doctor may decide to sedate a child under the age of 4 years. Older children may undergo a procedure without any sedation, if it is properly explained to them.

**Surgery**

Do not hesitate to share your fears or economic difficulties with your doctor when he recommends surgery for your child.

Emergency surgery cannot be delayed, especially in a newborn baby; otherwise, a surgical procedure may be deferred if the child has a cold, cough, fever; if it is more convenient to get it done during holidays, after a wedding, or for some other personal reasons. Some families wrongly assume that surgery should be avoided during the summer season or in the monsoon.

Inform your doctor if the child has had any problem earlier with surgery, anaesthesia or a particular drug. Also, let him know if your child has a bleeding tendency or if she is on any medication, especially corticosteroids, insulin and drugs for epilepsy. The doctor would also like to know if your child has been given corticosteroids in the recent past.

In general, doctors advise that no milk or solids be given for at least 12 hours prior to giving anaesthesia. Clear liquids with glucose can be given for upto 4 hours prior to it. Sometimes, the doctor may give some intravenous fluids through a drip before surgery.

**Sedation Before Surgery**

Your doctor will probably give your child some medication before taking her into the operation theatre. The idea is to let the child go into a light sleep before she is taken away from you. It also allows for the induction of anaesthesia without
waking her up and also provides some relief from pain after the child recovers from the effect of anaesthesia.

**Observation After Surgery**
The surgeon will keep the child in the surgery room situated near the operation theatre for some time before sending her to the ward. If your child is less than 6 months old, she will be kept for about 2 hours to make sure that her physiological functions, including her breathing and reflexes, are normal.

In the ward, the child may need medication for pain relief. Your presence and that of your husband or a close relative can drastically reduce the need for such medication. Your touch can act like magic. Do not hesitate to hold your child’s hand or stroke her cheeks even if she is connected to medical equipment. Whenever possible, hold her in your arms, hug her and kiss her.

Maintain a cheerful atmosphere around the child. If you feel like crying, do not suppress your emotions, but avoid breaking down in front of your child. Your child may appear to behave very unreasonably, but remember that she is probably just very frightened. Encourage her to share her anxieties with you so that you can reassure her.

Teenagers should be taken into confidence about the management of their illness. If your doctor agrees, your adolescent may be told about her illness, and have the planned line of management explained to her. You are then likely to get better cooperation from her during her hospital stay.
EMERGENCIES

As mentioned in the chapter on MANAGING A HOSPITAL STAY, do not waste precious time in an emergency. If you are in doubt about the seriousness of the situation, rush the child to the nearest doctor or a hospital. If required, give first aid to the child.

Following is the list of possible emergencies discussed in the book in the chapter on THE A-Z OF CHILDHOOD ILLNESSES:

- Abdominal pain
- Allergies
- Artificial respiration (see Cardiac Pulmonary Resuscitation and Mouth-To-Mouth Breathing)
- Asthma
- Bites and stings
- Bleeding
- Bone, joint and muscle injuries
- Breathlessness
- Bulging fontanelle (see under Meningitis)
- Burns
- Choking
- Common cold in an infant
- Convulsions
- Croup
- Crying
• Cuts
• Dog bite (see Rabies)
• Diarrhoea with dysentery (also see the chapter on HOME REMEDIES)
• Drowning (see Cardiac Pulmonary Resuscitation and Mouth-To-Mouth Breathing)
• Electric shock
• Eye problems, including injury to the eye
• Fractures (see Bone, Joint and Muscle Injuries)
• Head injury
• Hernia (see Obstructed Inguinal Hernia discussed under Abdominal Pain)
• High fever (see the chapter on HOME REMEDIES)
• Mouth-to-mouth resuscitation
• Nose-related problems, including bleeding from the nose
• Poisoning
• Rabies
• Scorpion bite (see Bites And Stings)
• Snake bite (see Bites And Stings)
• Splinters
• Stridor
• Unconscious child (see Encephalitis, Head Injury, Malaria, Meningitis and Poisoning).

Danger Signals In A Newborn
A newborn who appears sick and stops suckling must be shown immediately to your doctor.

Some other danger signals in a newborn are:
• Yellow or green vomit
• Convulsions
• Excessive crying
• Listlessness
• Breathlessness
• Very hot or very cold skin.
Guest Article - Dr. Jer Master

PRAYER AND YOUR CHILD’S HEALTH

Dr. Jer Master, Ex-Professor of Paediatrics at Mumbai’s Bai Jerbai Wadia Children’s Hospital, is a Christian Scientist and firmly believes that Prayer can help preserve the well being of our children and cure their ailments. In this article, she talks of how parents can turn to a Power that is greater than medicine or any human system.

For more than two decades, I worked as a practising paediatrician. At a friend’s suggestion, I started studying Christian Science, without really expecting it to change my thinking or my work in any way. As I read, I received healings myself. When confronted with children who were desperately ill, a sentence or a phrase or a concept from the book Science & Health With Key To The Scriptures would convince me of the spiritual identity of the child, cared for and protected by God.

It is normal and natural for parents to pray for the health of their children. Whatever their religion, and whether or not they are atheist, they do it instinctively. Before children are born and after, parents often find themselves turning to a higher power whenever they are concerned.

This higher power, this Supreme Being is God. God may be called by different names but the fact remains that only one God created us all. Our children are God’s gifts of love to us, which we must accept with deepest gratitude. Children are meant to be a joy to us, and they are.
The Power Of Prayer

Prayer is often thought of as beseeching God for His help, without there being any certainty of its outcome. But there is a way of praying scientifically, that allows us to be as sure of a right result as when we solve a mathematical problem correctly. This way is called Christian Science. It is a therapeutic system emphasising spiritual healing through prayer.

Mary Baker Eddy, an American woman, discovered it in the latter part of the 19th century. Chronically ill since her childhood, receiving no permanent relief from the systems available in her day, widowed at 23, and a single mother, she often prayed to find relief from her problems. In 1866, she was seriously injured. As was her custom, she asked for the Bible. She read an account of a healing performed by Christ Jesus, which gave her an insight that brought about a sudden recovery. Through her lifelong study of the Bible, she realised that there was a spiritual law on which Jesus’ healings were based. She was able to use that law to heal people who came to her with a variety of problems. Many children were cured of disabilities and life-threatening illnesses. She taught others to heal, and eventually wrote the book Science & Health With Key To The Scriptures, which is the textbook of Christian Science.

In most scriptures, God is referred to as Father, and has masculine qualities like strength, power, dominion and support attributed to Him. But since God is the only creator, He/She is Mother as well, with qualities such as gentleness, tenderness, selflessness, patience and kindness.

Our children therefore have one real parent — their Father-Mother God. The role of human parents is to reflect and express the qualities of the divine parent.

In Science & Health With Key To The Scriptures, Mrs. Eddy interprets the first line of the Lord’s Prayer as given in the gospel of Matthew thus:
“Our Father which art in heaven,

Our Father-Mother God, all-harmonious...”

The book offers many ideas with which we can pray and bring up our children well.

**Love — The Greatest Keeper Of Health**

Parents sometimes differ strongly on methods of child care, a situation which leads to upheaval in the home that is unsettling for the child and results in insecurity. If we think of God as both father and mother, there will be no scope for dissension.

Parents often also worry that their children are not eating enough, or not eating the right foods, or not gaining weight according to age-appropriate milestones. While the book offers guidelines on children’s normal diets, the important thing to remember is that the chief nourishment required by a little child is large amounts of love from his parents.

Love, spelt with capital L, is a name for God. This divine love truly nourishes.

There is no formula for prayer. A sincere turning to God, acknowledging that Love is the parent of the child, makes a big difference to the child’s welfare. It brings a sense of serenity that calms parental fears. Then the focus shifts from proteins and vitamins to love, and the joy and strength it brings.

**Healing Illness Through Prayer**

Can prayer have any part in the healing of a child’s illness? I am not talking here of desperate situations where everyone starts praying for divine intervention.

A young mother I know would heartily say yes, prayer does work. Her two-year-old son had a bout of diarrhoea, a condition fairly common in our country. She prayed to know
that God creates all that is good; He did not create conditions that could be harmful to any of His beloved children... The mother continued her prayer by understanding that God controls everything in His universe, even her child’s health. There was no involuntary action stimulated by something injurious, because He is the only source of all action. In *Science & Health*, it says, “Mind is the source of all movement, and there is no inertia to retard and check its perpetual and harmonious action.” Mind, spelt with a capital M, is another name for God, mentioned in this book.

As the mother prayed with these ideas, she was freed of her own fears, and became confident of God’s control, power and love for the child, present right there and then. The improvement in the child’s condition began almost immediately, and by the next day, he was his usual cheerful, active self and completely normal.

**Eliminate Fear Through The Love Of God**

Healings like this one are happening all over the world every day. The important thing is to let go of fear; then we can actively trust God. Fear indicates that God is forgotten, or not appreciated as an ever-present help in trouble. The antidote to fear is divine Love. We are never afraid in the presence of those whom we know love us. This love is power, the strongest power that exists; a power that is tangibly available here and now.

The fear that is felt about children is because they are considered to be small, frail, physically immature, vulnerable mortals. But that is not the way God created them or sees them. Spirit, spelt with a capital S, is also another name for God. Therefore, all that He creates is spiritual, without any physical component. Since God is Mind, what He creates is mental, in the shape of thoughts, concepts, ideas. That is what children are; they are the spiritual thoughts of God. They are held in the divine Mind, sustained by it and retained there in
their inherently perfect state, from which they are never moved. They are completely safe with their Parent, God.

The awareness of these truths enables us to take wise steps to safeguard our children, while at the same time freeing us from undue anxiety. Our children’s true identity is not comprised in their body, but in the spiritual qualities inherited from God — purity, innocence, joy, liveliness, honesty and intelligence. These qualities cannot be injured or damaged in any way; no germs can get to them, no inflammation attack them. These qualities are not static, but unfold continuously, smoothly and actively. This identity is eternal, whole, beautiful and utterly lovable.

Understanding God Is Essential For Healing

People often talk of faith when considering prayer. But the prayer that works requires more than faith; it requires the understanding of God, and the expression of love. Faith is necessary, it is a first step, but it is not enough, until it is based on an understanding of God. When we get to know the nature of God, He no longer remains a mystery. We can humbly pray to Him every day, affirming His greatness and majesty, His tender love for ourselves and our family, and know that His care surrounds us at all times in all circumstances.

We can truly be grateful for all the good He has already given us, and continues to shower upon us. This gratitude is itself a powerful prayer, which enables us to see and concretely demonstrate His presence as an active influence in our lives, blessing our children.
Dr. Anand Gokani is a Consulting Physician and a Diabetologist, who believes in allowing Nature to cure.

The phrase “Allowing Nature to cure” is perhaps more appropriate than ‘Nature Cure’; because actually it is Nature that cures — we may just be able to assist the process.

An objective look at all the diseases that afflict children shows us that a large number of them are self-limiting, e.g. colds, coughs, flu-like fevers, diarrhoea, constipation, other viral fevers like mumps, measles, chickenpox, etc. They are called ‘self-limiting’ because Nature launches an all-out effort to recover from the disease as soon as it sets in. In most circumstances, we need only to assist the natural recovery process in order to effect a quick recovery.

Consider this example: A 5-year-old boy goes out for dinner with his family. They go to a popular restaurant and enjoy a rich meal. The child overeats, comes home and complains of fullness of the abdomen. A while later, he complains of a strong urge to vomit. He does vomit after a while and brings out undigested food that smells strongly acidic. The parents panic, and contact the doctor late in the night. The doctor prescribes a medication on the phone to stop the vomiting. The child is given this medication after which the vomiting does stop. The next morning, the child gets diarrhoea, for which he is given some more medication. The diarrhoea
stops, but the child then has severe abdominal discomfort, refuses food, and develops a fever. Now he is really sick... He receives more medication, tests are done... After some days of anxiety and concern, the child recovers but has lost some weight, is cranky and weak and has no appetite.

This is an exaggerated story of what happens in every home with a child. Children are prone to overeat on occasions such as these. Often, the food may be stale or pungent, which makes it toxic to the child’s system. Sometimes, overeating and indigestion lead to the fermentation of the food, and toxins are produced as by-products. The body recognises this as a threat to health and triggers a rejection mechanism in the form of vomiting — the shortest way out. When this avenue of escape is blocked — with medication — the next avenue of escape is sought. This causes diarrhoea. When this avenue is also blocked — again with medication — the toxins gain entry into the blood stream where they weaken the immune system and allow viral or bacterial infections to supervene. When there is a viral or bacterial infection in the body, the third line of defence — fever — springs into action.

How Could We Have Assisted Nature To Heal The Child In The Above Case?

Following the bout of overeating, the child felt like vomiting. This is Nature’s mechanism of throwing toxic substances out of the body. With a little reassurance, the child could have been coaxed into drinking water which would allow for easy vomiting. Two or three vomits would have rid the body of all the toxic matter and the child would have slept peacefully and would have probably been completely well in the morning.

In order to rid the body of poison, the body needs a vehicle, and the best vehicle is water. Hence, adequate water at frequent intervals helps the body to carry out its detoxifying functions very efficiently. Of course, if the symptoms persist
THE ROLE OF NATURE CURE IN CHILD CARE

or the look of the child causes anxiety, you must get in touch with your doctor.

**How Nature Cures**

The principle of Nature Cure is that all diseases of the body are caused by the presence of unwanted toxic substances in the body (toxemia) and simultaneously because of the absence of useful substances in the body (deficiency). Hence, the logical treatment of such a condition is to remove the poisonous substances from the body and to supply all the vital substances to it.

Nature has equipped us with the necessary tools to heal from disease. We have been endowed with three major instincts, namely thirst, hunger and fatigue. If we can sharpen our ability to recognise these instincts and act upon them, we have already set the healing process into motion. For instance, when the child is sick, he loses his appetite (so he stops eating conventional food), he feels tired (so he rests), but he feels thirsty, so he drinks water. Often, the child may be feeling so sick that he/she loses the awareness of thirst or may have such marked nausea or aversion for food and drink that even drinking water is avoided. In such circumstances, parental intervention is required and gentle firmness could go a long way to prevent the disease from being prolonged. (However, in the case of severe nausea and vomiting associated with fever, abdominal pain and distention, the child should not be forced to drink fluids and a doctor should be consulted as soon as possible.)

Water facilitates the detoxification process. Once the poisons have left the body, the appetite for food returns and he starts accepting food, which goes to replenish his body and restore his health, strength and vigour.

Hence, in order to cure disease, one has to remove the toxins and replace the vital substances. This understanding
helps us to assist Nature in performing the task effectively and restoring health.

Nature Cure is a gentle, sure and effective way to heal in most cases, but there are occasions when, along with the natural means, one requires the help of medications. Medications, in such circumstances, are necessary only in small doses and for a shorter duration. The means available to us in Nature Cure are diverse and all-pervading. They are available everywhere and they are almost free of cost. Hence Nature Cure can be used by anyone at any time.

The means are Sunshine, Water, Air, Earth, Fire and a host of combinations thereof:

— **Sunshine** provides warmth to the body and triggers the release of its hormones. It is vital for the maintenance of good health. In Nature Cure, sunbathing has been given a lot of importance in restoring health. The best time for sunbathing is the early part of the morning or the latter part of the evening when the sun’s rays are warm but not as harsh as the mid-day sun.

— **Water** is one of the best cleansing agents and hence is the most important tool in healing from any sickness.
  - Bathing in water, cold and warm sponges.
  - Drinking enough water.
  - Enemas are a very useful adjunct in internal cleansing. However, some precautions are necessary. An enema should never be given by an inexperienced person. It must not be given when intestinal obstruction is suspected or if there is a suspicion of an intestinal infection. Enema should not be given in high fever such as seen in typhoid fever. It should never be given with hot water. The temperature should be the same as room temperature. Forceful introduction of the enema tube could cause very serious damage.
• Whirlpool baths, jacuzzis and hipbaths are some of the other uses of water in Nature Cure.

— **Air** is of paramount importance in healing. Breathing exercises and physical exercise are good ways to optimise our air intake. The ability to breathe correctly helps in providing the body with adequate oxygen that is so necessary to heal from disease. Yogic breathing exercises help to train children to breathe correctly and also provide an impetus for enhanced lung function. Yoga is an extremely versatile science that could augment the physical, mental and spiritual growth of a child. However, these exercises should be done under supervision.

— **Earth** is used directly in the form of mudpacks and indirectly by cultivating it for all our various fruits, vegetables, nuts, grains, sprout brans and other foods.

— **Fire** is used to create warmth and also helps to cook our food to make it easier to digest.

All these elements are used alone or in varying combinations to provide the basis for optimum healing.

**Toxemia And Deficiency**

The key words are toxemia and deficiency. They cause disease.

Toxemia is caused by toxic foods — like the excessive use of white sugar, refined salt, refined wheat (*maida*) — and all products made with these, including cakes, chocolates, ice-cream, pastries and sweets, salted snacks, bakery products and other confectionery. Fried foods, spicy foods, alcohol, tobacco, tea and coffee also contribute to the spread of toxins in the body.

Additionally, in the presence of constipation, toxins are produced by fermentation in the intestines.
DR. R. K. ANAND’S GUIDE TO CHILD CARE

Deficiency is produced by using refined foods, e.g. refined wheat, white sugar and salt, tea, coffee and highly cooked food. Food cooked in the microwave oven is both toxic and deficient. (If you use a microwave oven, do check the temperature of the food or milk before you use it. The food can be too hot for the child even if the container or the feeding bottle feels cool to the touch — The author).

**Detoxification And Replenishment**

Detoxification and replenishment heal disease.

Detoxification is done by the optimum use of water and foods like fruits, vegetables, coconut water, honey and whole grains.

Replenishment is carried out through food that detoxifies, water, earth, fire, sunshine and air.

**Help Nature Help You**

Nature cures, Nature cares, but the condition it lays down for us is that it works only if we work and live in accordance with its laws.

Acting in accordance with the laws of Nature not only helps one to keep healthy but also helps to heal in sickness. There are times when medications are necessary, times when some permanent damage has occurred, or times when the load of infection or poison is overpowering the body and time is precious. In such circumstances, medications, drugs, and surgery have proved life saving. If, along with medical treatment, the principles of Nature Cure are employed, the quality of health accrued is far better than when Natural laws are flaunted completely.

The important thing is that Nature Cure is not an exclusive science. It is all-encompassing. It can work in conjunction with Ayurveda, Homoeopathy, Allopathy or any other science of healing. What’s more, at times, it works even in spite of these sciences.
HOMOEOPATHY: A GENTLE COMPLEMENTARY SYSTEM OF MEDICINE

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What Are The Principles Of Homoeopathy?
The founder of homoeopathy was Dr. Samuel Hahnemann (1755 – 1843). Through numerous experiments conducted over several years, he established that any medicine will cure a particular disease if it is capable of producing symptoms of the same disease in a healthy individual. For instance, quinine, which is a derivative of the plant Cinchona, has the ability to produce chills, sweating and rigors if taken by healthy individuals. The same drug is also used in the treatment of malaria, the symptoms of which are the same as above — namely chills, sweat and rigors. “Like cures like” is the foundation of the basic principle of homoeopathy. It is due to this principle that homoeopathy derives its name from the Latin words ‘Homoeo’ (similar) and ‘pathos’ (suffering).

What Are The Sources Of Homoeopathic Remedies?
To make a broad classification, homoeopathic remedies comprise of the 3 natural kingdoms.

1. The Vegetable kingdom, which includes plants and flowers.
2. The Animal kingdom, which includes the venom of poisonous snakes and milk from some mammals. It is worth noting that during the extraction of any animal substance in homoeopathy, no animals are endangered or put to cruel laboratory testing.

3. The Mineral kingdom, which includes metals, chemicals and essential salts.

The homoeopath uses various techniques and recent advances to understand remedies that already exist, but are not used to their full potential due to a lack of in-depth understanding of them. Each and every substance, by its own inherent properties and characteristics, comes alive to an observant homoeopath.

**What Is Classical Homoeopathy Or Constitutional Prescribing?**

A holistic view to a case in which the characteristic emotional behaviour as well as the important physical symptoms are given equal weightage, can be termed as constitutional prescribing or classical homoeopathy. The source of the substance used also offers vital clues to a person for whom it is indicated. For instance, one of the homoeopathic remedies is Coffea cruda, prepared from roasted coffee beans. Caffeine, a constituent of coffee, is known to increase the alertness of mind and to stimulate creative thoughts and ideas. A young girl of 4 years was brought to me for recurrent throat infections. While the mother was relating her complaints to me, I passed the child a few toys to play with. She chose a game that involved fitting blocks of different shapes into their respective compartments. What followed was very interesting. To begin with, she felt a need to time her speed in arranging all the blocks. And she wanted to increase her speed every time. Once she got bored with this, she took the same blocks and started making attractive patterns with them. She would dismantle them and create a new pattern
every time. These two features are important characteristics of the remedy Coffea—firstly, the ability to be quick in actions and secondly, a creative bent of mind and ideas. This was noted in a casual manner just during play. What further confirmed the remedy was the reported excitement in the little girl, whenever she was told that there would be an interesting outing the following day. This would result in increased activity of her mind, leading to sleeplessness. Don’t we know of this ability of coffee? Have we not used it at some time or the other to keep ourselves awake? It surely explains why coffee is such a popularly consumed beverage among the advertising profession in which one is required to come up with new ideas at a rapid pace. The child responded dramatically to this remedy and her throat infections were cured permanently.

What Are The Recent Advances In Homoeopathy?

A lot of revolutionary ideas and techniques are being used by homoeopaths in order to make prescribing more scientific and accurate. A deeper understanding of substances according to their placement in the periodic table is one such idea. Due to this, the various elements are being understood by homoeopaths in a new light. Let us take the example of the metals. Copper is a metal that is used for a range of illnesses. One of its important aspects is to produce spasms. Toxicological cases of copper poisoning have confirmed the ability of the substance to produce spasms of different types. The theme of all the metals seems to be one of high performance and competition. This is understood by a valuable utility of metals in the manufacture of various industrial components. Copper in the periodic table is placed along with the metals iron, nickel, chromium and zinc. All these metals seem to have a common aspect of attack and defence, as part of their basic temperament, and a never-ending reserve to excel and come up on top as victor. This can make them appear very dominating with an attitude of
intimidating others. These were the precise features I saw in a 5-year-old boy who had asthma and eczema and was seen by me at a seminar for homoeopaths in Munich. He had scratch marks all over his face, like ‘battle’ scars, received during fights with friends and his siblings in order to assert his dominance. It was noticed that he quickly got fed up of the various toys that were offered to him. Instead, he chose to jump from a chair, above the cord of the mike that was attached to me and he wanted to go higher with every jump. He also knew that the audience was viewing him through a TV monitor and he seemed to relish that they were noticing and applauding his determined and successful performance. Moreover, to clinch the prescription, his mother described the spasmodic way in which he would start coughing continuously, once his asthmatic attacks would begin. These are all features of the remedy Cuprum metallicum prepared from the metal Copper. The mother was in touch with me from Germany and her child recovered completely within a short time. His aggressiveness too came down considerably.

What Is The Efficiency In The Treatment Of Cases With Deeper Pathology Or Metabolic Disorders?

One of the group of remedies used very effectively by homoeopaths is the ophidia group, prepared from snake venom. One of these is Naja, prepared from the venom of the Indian cobra. On studying toxicological cases of cobra bite victims, what is observed is a coldness of the body with gradually increasing drowsiness. The victims eject saliva periodically. The swallowing reflex gets diminished, they lose control of their sphincters due to which they pass urine or faecal matter involuntarily and finally die unless there is timely help in the form of an anti-snake venom.

A 3-year-old child with convulsions, mental retardation, and with a rare metabolic disorder called Citrullinemia was referred to me at the college outpatients department. He
presented with just the above picture, but of course without a history of snakebite. In this illness, there is excess ammonia, which proves to be highly toxic to the nervous system. As protein foods produce further ammonia in the body, the child had been advised a strict protein-restricted diet. His health was deteriorating. As part of the detailed history, it was revealed that the mother, during her pregnancy with this child, had felt very let down by her husband when she discovered that he was having an extra-marital relationship. She had felt like terminating her life and that of the foetus that she was carrying. But then there was a conflict within her. She had to stay alive for the sake of her older child. When the child was born and his disease diagnosed, she had felt intense guilt about having those destructive thoughts during her pregnancy. She seemed to believe that her bad state of mind and her unhealthy attitude towards her pregnancy had resulted in her child having such a deep pathology. Though she was very bitter towards her husband, she yet chose to perform all her duties in a noble manner like a dutiful wife. It is worth noting the relevance of the pregnant mother’s predominant state in the selection of the child’s remedy. All these features were confirmed in a proving exercise conducted among a group of homoeopaths and students who took the remedy Naja themselves. Besides various physical symptoms, they shared the common feelings of guilt and a high sense of responsibility towards their duty. Based on all this information, the child was given the remedy. Gradually, his drowsiness got less, he became more conscious, started regaining his lost sphincter control and started taking a few steps by himself. The child is yet under observation and has begun to tolerate protein foods in his diet without any toxic effect and all his anticonvulsant medications have been stopped. As there has been significant brain damage already, the final outcome of the case is obviously limited. But it conclusively points to the definite role of homoeopathy in the management of metabolic disorders with deep pathology.
How Can You Aid Your Homoeopath?

Homoeopathy is a system that bases its prescription on symptoms. You can help your homoeopath by providing him/her sufficient, accurate and valuable data in the form of good symptom reporting. The entire family, including the children, should be educated to express their symptoms and feelings, describing the same in full detail.

For instance, telling your homoeopath that your child has high fever is not sufficient. But in addition, telling the doctor that, along with the fever, the child is also talking more than usual, wants to be caressed by either parent, has a total absence of thirst and an increased frequency of urination can provide the true picture of the disease. This will certainly help the homoeopath in finding the right remedy for your child.
AYURVEDA AND CHILD CARE

Dr. Ashwinikumar A. Raut is an MD in Ayurved medicine

‘Ayu’ means life, ‘Ved’ means to know. To know about life is Ayurveda.

We shall briefly focus here on the branch of Ayurveda that deals with child care — from intrauterine life till the age of puberty. In fact, it is stressed that the would-be mother and father should be physically, mentally and emotionally fit before the conception in order to have a good pregnancy.

CARE DURING PREGNANCY

Our ancient Ayurvedic literature deals elaborately with the emotional and nutritional needs of the pregnant mother. To ensure proper growth and development of the foetus, herbal decoctions, to be taken every month, are given to a pregnant mother. These are especially recommended to women who have a history of recurrent abortions or miscarriages.

Since the mind of the foetus starts being expressed in the fifth month of pregnancy and the intellect in the sixth month — from the fifth month onwards, a pregnant mother should adhere to a satvik diet which includes food that is grown, prepared and consumed in a natural form and also food which is less processed, easy to digest, warm and unctuous.
From the sixth month onwards, the diet should include nootropic herbs (medicinal herbs that stimulate the brain and nervous system) like brahmi, mandukparni, shankhapushpi, etc. It is advised that food which is hot, pungent and heavy to digest be avoided during pregnancy.

Strenuous and violent activities, squatting, suppression of natural urges, prolonged stay under the hot sun and peeping into pits or wells, and therapies like sudation (causing excessive sweating), oleation (application of oil), emesis (vomiting) and blood letting are prohibited during pregnancy. It is important that the expectant mother is helped to remain in a pleasant state of mind by listening to recitations from the scriptures and avoiding thoughts that breed anger, fear, jealousy or hatred.

BREASTFEEDING
According to Ayurveda, love and affection for the baby, a happy state of mind with adequate rest and sleep, and a good nutritious diet are essential for successful breastfeeding. Besides that, certain plants and foods like kheer of halim, methi, poppy seeds and dates, and medicinal products made up of shatavari, musali, jeevanti, etc. may help to improve the quality and quantity of breast milk.

CONCEPT OF DOSHAS
Health and disease in Ayurveda are discussed in term of three ‘doshas’ (vata, pitta and kapha). In health, equilibrium of these three doshas is maintained. Disturbance in the equilibrium leads to disease. It can be said in brief that kapha dosha is associated with anabolic activity predominant in childhood, pitta dosha with bio transformation as seen in middle age, and vata dosha with catabolic activity as in old age. In other words, childhood is associated with growth and development, middle age with maintenance, and old age with degeneration. Hence, it is believed that the majority of childhood diseases are related to kapha dosha disturbance. For this reason, children
are kept away from such foods and activities that would aggravate the *kapha dosha*. Hence children prone to frequent illnesses are advised to avoid too many sweets, ice-cold food and drinks, buffalo milk, playing in water and sleeping during the day (applicable to children older than 4 years).

**HOME REMEDIES FOR COMMON CHILDHOOD ILLNESSES**

**Abdominal Pain**
- Powder of *ajamoda* and *saunf* boiled in water and given lukewarm.
- A drink of the powder of *jeera* (cumin) and *saindhav* (rock salt) dissolved in water.

**Common Cold**
- Juice of *tulsi* leaves given two to three times with honey.
- Sips of ginger juice and lime juice given with warm water.

**Constipation**
- Dry black currants soaked in water and given with warm water at bedtime.
- A cup of warm milk with half a teaspoon of ghee given at bedtime.

**Dental Caries And Tooth Ache**
- Clove and asafoetida on a cotton swab to be kept over the carious tooth.
- Eucalyptus oil and camphor oil put on cotton swab to be placed over the carious tooth.

**Diarrhoea**
- Pulp of the Bilwa fruit or its *sharbat* with sugar water.
- Powder of pomegranate fruit rind given with the juice of pomegranate seeds.
Fever
- *Musta, parpat, usheer, guduchi, ginger and dhania* boiled together in water and given frequently to drink.
- *Kirattikta and dhania* boiled in water and given 2 to 3 times a day to drink.

Loss Of Appetite
- One *pippali* seed and two pinches of ginger powder boiled in half a litre of water and given before meals.
- Two pinches of ginger powder boiled in milk and given to drink.

Throat Infection
- *Yashtimadhu* stick given for chewing
- *Yashtimadhu*, turmeric powder and salt boiled in water and given for gargling.

Vomiting
- Mix *yashtimadhu* powder with *elaichi* powder and give with ginger and lime water.
- Clove, *saunf* and sugar given with *lajamanda* (puffed rice) soaked in water.

Worms
- Give *vidanga* seeds boiled with milk.
- *Palash beej* powder to be licked along with honey.

Note: The frequency and dosage of the above mentioned remedies would depend on the severity of the symptoms and age of the child.
Dr. Bharat Dalvi, had his training in paediatric cardiology at the Children’s Hospital, Boston; Hospital for Sick Children, Great Ormond Street, London; and the Cleveland Clinic Foundation, Cleveland.

The human heart is made up of four chambers. The upper ones are the right and left atria, separated by a wall called the inter-atrial septum. The lower chambers are the ventricles, the right and left separated by the inter-ventricular septum.

The left side of the heart has oxygen-rich, ‘pure’ blood (or ‘red blood’). The right side of the heart has oxygen-poor, ‘impure’ blood (or ‘blue blood’). The ‘red blood’ from the left ventricle is pumped to the body through a big arterial vessel called the aorta. The ‘blue blood’ from the right ventricle is carried to the lungs for oxygenation through the pulmonary artery.

Normally, the pressure on the left side of the heart is more than on the right. Therefore, the flow of blood in septal defects (hole in the heart) is from left to right. Thus, in uncomplicated septal defects, the patient is pink and does not have cyanosis (the blue colour of the skin and mucous membranes).

Frequently asked questions about congenital heart disease now follow:
When Should You Suspect That Your Child Could Be Having A Heart Disease?
When the child has:
- Rapid and distressed breathing
- Blue discolouration of the nails, lips or tongue
- Feeding difficulty — she is not sucking well or has to leave the nipple every now and then for a gasp of breath
- Recurring cough with fever (ie. chest infection)
- When the child is not growing well (inadequate weight gain), and her physical milestones are not in keeping with her age.

How Does A Paediatric Cardiologist Diagnose Heart Defects?
- With the help of medical history, including birth history.
- By performing a thorough physical examination.
- By ordering certain investigations. The most common ones are an X-ray chest, ECG, Doppler echocardiography and cardiac catheterisation.

Can My Child With CHD Participate In All Physical Activities?
The majority of children with CHD are fully active and usually do not need any restriction. Activity should be promoted. Swimming, cycling and running should be encouraged. In a few children with specific heart problems, the paediatric cardiologist may advise against strenuous playing activities or competitive sports.

If My Child Has A ‘Murmur’ In The Heart, Does It Mean He Has A Heart Problem?
A ‘murmur’ is an abnormal sound heard by a family physician or a paediatrician with his stethoscope. Not all murmurs are produced by abnormalities in the heart. In some children with
murmurs, the heart is functionally and structurally normal. Such murmurs are referred to as ‘innocent’ or ‘functional’ murmurs.

COMMONLY OCCURRING CONGENITAL HEART DISEASES

ATRIAL SEPTAL DEFECT (ASD): It is a defect in the partition separating the two atria. Usually, the left atrial pressures are higher than the right atrial ones. Hence, the blood flows from the left to the right atrium; i.e., pure blood mixes with impure blood. This results in increased volume of blood going to the right heart chambers and the lungs.

TREATMENT: There are surgical and non-surgical (transcatheter) modalities available.

Do ASDs Close Spontaneously?
Small ASDs detected on echo immediately after birth or during infancy may close spontaneously, but most of the ASDs that are moderate or large-sized do not close on their own.

What Is The Ideal Age For Closure?
ASDs can be closed at any age, but if the child is asymptomatic, the defect can be electively closed at around 3 years.

Which Of The ASDs Can Be Closed Without Surgery?
ASDs which measure 20 to 22 mm on echo and which are located in the central portion of the partition are suitable for non-surgical closure. They constitute about 30% of all ASDs.

PATENT DUCTUS ARTERIOSUS (PDA): A patent ductus arteriosus is an open tube that connects the two major arteries arising from the heart — the aorta (AO) and the pulmonary artery (PA). This tube is normally open when the child is in the mother’s womb.
When Does The PDA Usually Close?
PDA closes within a few hours after birth. In premature babies, it may remain patent for a longer time, sometimes even weeks.

What Are The Ways In Which A Premature Child With PDA Presents?
Flow through the ductus and the degree of prematurity decide the time and nature of presentation in the newborn.

The commonest presentation is in the form of shortness of breath and the inability to provide adequate oxygen to the body. Such babies need extra oxygen.

A large PDA may actually need to be assisted by a breathing machine (ventilator).

After The First Year Of Life, PDA May Present With:
• Shortness of breath
• Feeding difficulties
• Repeated respiratory tract infections (cough with fever)
• Failure to gain weight
• Delayed physical milestones — delay in crawling, rolling over, sitting with support…
• Repeated episodes of cough
• Infection of the heart valve or vessel (infective endocarditis)
• Or it may be incidentally detected during routine examination.

How Can A PDA be fixed?
It can be closed either with surgery or with non-surgical techniques. Surgical ligation of PDA does not require use of cardiopulmonary bypass. Non-surgical techniques involve closing the ductus with the use of stainless steel coils or an umbrella made of a material called nitinol.
VENTRICULAR SEPTAL DEFECT (VSD): It is a defect in the partition separating the two ventricles. Usually, the left ventricle (LV) pressures are higher than the right ventricle (RV) ones. Hence the blood flows from the LV to the RV through the defect. This results in oxygenated, pure blood going back into the lungs, resulting in the heart having to pump an extra amount of blood. However, if a large defect is left untreated, the pressure in the lung arteries tends to increase. This results in impure blood from the RV flowing into the LV and subsequently into the body.

SYMPTOMS depend upon the size of the hole and the pressure in the RV.

During the newborn period, the pressures in the RV are high and the child may be completely asymptomatic despite a large defect. By 6 to 8 weeks of life, the pressures in the right heart chambers tend to normalise, resulting in increased flow through the defect, producing symptoms.

Symptoms in infancy include:
- Shortness of breath or increased effort to breathe
- Repeated lung infections or pneumonia
- Poor growth
- Delayed milestones
- Feeding difficulties

Those babies with large VSDs who are not operated upon in infancy or early childhood may present during late adolescence or adulthood with shortness of breath, fatiguability and bluish discolouration of the lips and nails. This is due to development of high pressures in the lung vessels, resulting in the impure blood being shunted into the body across the VSD.

Do All Babies With VSD Have These Symptoms?
No. Those with small holes can be completely asymptomatic and may be detected on routine examination for an unrelated problem.
Is It Necessary To Close All VSDs By Surgery?
No. Small VSDs do not need surgical closure. Many of them may even close spontaneously. Only the large ones that produce symptoms and/or cause overload on the heart need to be closed surgically.

What Is The Ideal Time To Close A VSD?
This depends on the size of the VSD, and the experience and expertise of the operating team. A large VSD causing significant symptoms should be closed immediately. Some of the VSDs that do not produce significant symptoms but result in high pressures in the lungs during infancy should also be closed immediately. The earlier such defects are closed, the greater are the chances that the pressures in the lungs will normalise.

Moderate-sized VSDs that are neither producing symptoms nor causing lung pressures to go up can be closed electively by about 3 years of age.

Till What Time Are These Holes Expected To Close On Their Own?
Most of the holes that will eventually close are expected to close by 5 years of age. Thereafter, spontaneous closure of the VSD is unlikely.

VALVULAR PULMONARY STENOSIS (PS): This is a stenosis (narrowing) of the pulmonary valve that guards the orifice between the RV and the PA.

Do All Patients With PS Need Treatment?
No, if the PS is mild, the child could be left alone without any intervention. Such children have been shown to have normal quality of life and longevity when compared to their normal counterparts. However, if it is moderate or severe, the valve obstruction needs to be relieved in order to prevent its ill effects on the RV.
What Are The Modes Of Treatment Available?
The treatment of choice for valvular PS is balloon pulmonary
valvuloplasty (BPV). This is a non-surgical method of dilating
the valve with the use of a specialised balloon catheter. In less
than 5 % of patients, balloon dilatation may not work, in which
case surgical relief of stenosis may be required.

VALVULAR AORTIC STENOSIS: This refers to a
narrowing of the aortic valve. The aortic valve guards the
orifice separating the left ventricle from the aorta.

Do All Patients With AS Need Treatment?
No. Mild aortic stenosis may be left alone. But some of these
mild AS, over a period of time, become moderate or severe, in
which case they need to be relieved. Thus all AS, including
the mild ones, need to be under regular medical supervision.
Moderate or severe AS needs to be treated before it affects
the LV function.

What Are The Modalities Available For Treatment?
AS can be relieved by a specialised balloon catheter. This
procedure is called balloon aortic valvuloplasty (BAV). The
other option is surgical, which involves either repair or
replacement of the valve.

COARCTATION OF THE AORTA: In this condition, the
aorta is usually constricted distally, after it has given rise to
the branches supplying the brain and upper part of the body.

What Are The Effects Of Coarctation Of Aorta On The
Circulation?
The blood pressure above the narrowing is high. If
left untreated, the left ventricle muscle becomes thick.
Ultimately, the left ventricle fails to deliver blood to the
body commensurate with its needs. This is referred to as
left ventricular failure (LVF).
Do All Patients With Coarctation Need Treatment?
If the coarctation is very mild, the child may be left alone. But any coarctation that has resulted in high blood pressure or has affected LV muscle thickness and/or contractility will need treatment. Moreover, if the pressure difference between the upper and lower portion (ie. before and after the narrowing of the aorta) is more than 25 mm Hg, the coarctation will need to be relieved.

What Are The Modalities Of Treatment Available For Babies With Coarctation?
Coarctation can be fixed surgically by cutting off the narrow portion and suturing the two ends of the aorta together. The other way of surgical correction is by using a patch to widen the narrow segment. This patch could be borrowed from the vessel to the arm or a synthetic material could be used.

The non-surgical option involves balloon dilatation of the narrow segment. This is achieved by passing a special catheter called a balloon catheter from the groin. This is a catheter which has a balloon mounted on its tip. The balloon is placed across the narrow segment and inflated so as to widen the narrow segment.

BLUE BABIES (CYANOTIC HEART DEFECTS):
Babies with cyanotic heart disease are more commonly known as “Blue Babies”. This is a group of defects where the blood pumped into the body has less than the normal oxygen. This causes bluish discolouration of the skin, lips and tongue (cyanosis). The cyanosis could be mild or severe, depending on the nature of the defect, the age of the child and the level of activity. Cyanosis is known to worsen with activity and is often relieved by rest. Indians’ darker skin complexion and presence of anaemia may result in parents being unable to recognise mild cyanosis; even doctors may sometimes overlook it.
TETRALOGY OF FALLOT (TOF)

What Are The Structural Abnormalities In Patients With TOF?

TOF has 4 structural defects

1. Large defect in the partition separating the two ventricles (pumps). This is the VSD.
2. Narrowing of the pathway leading from the RV to the pulmonary artery is most often at/or just below the pulmonary valve.
3. The right ventricle is more muscular than normal.
4. The aorta, instead of originating from the left ventricle, arises from both RV and LV, i.e. it is located just above the VSD.

What Are The Effects Of TOF On Circulation?

The major abnormality is decrease in the amount of blood going to the lungs due to obstruction to blood flow. The other important problem is the impure blood from the RV entering the aorta across the defect in the partition separating the two ventricles (VSD), resulting in the mixing of pure and impure blood. As a result, the babies with this abnormality become blue and are referred to as ‘Blue Babies’.

What Are The Various Presentations Of Children With TOF?

- Parents may notice cyanosis.
- Growth of these children is usually poor.
- Shortness of breath and fatiguability on exertion.

Some of them may present with sudden episodes of severe cyanosis with rapid breathing which may be progressive and end up with convulsions (fits) or loss of consciousness.
What Treatment Can Be Offered To These Babies?
They need open heart surgery for correction of this anomaly, viz. closing the partition defect (VSD), removing the obstructing muscle and opening the pulmonary valve if narrow. Some of these babies are not suitable for a complete repair. These children can be temporarily relieved by increasing blood flow to the lungs with a shunt.

This procedure involves making a connection between the A0 and PA. This helps reduce cyanosis and allows the child to grow.

Do These Children Need Any Medicines?
While the children await surgical intervention, they are treated for anaemia (if present).

Children who have worsening cyanosis on exertion may be put on betablockers (a group of medications which blunts the heart’s response to exercise).

When Is The Ideal Time For Total Intracardiac Repair (ICR)?
The ideal time for total ICR is variable, depending on the experience of the surgical team as well as the exact nature of the abnormality. Most of the centres in India would prefer complete ICR by the age of around 2 to 3 years.

Do These Children Need Follow-Up After Surgery?
They do need a regular follow-up to assess the effects of surgery as well as to see the effect of any leftover defects (residual).

TRANSPOSITION OF GREAT ARTERIES (TGA)

What Are The Abnormalities Seen In This Condition?
Normally, the PA carries the blue blood from the RV to the lungs for oxygenation, and the aorta carries the pure red blood
from the LV to the whole body. In TGA, the PA is connected to the LV, and the aorta to the RV. This results in purified blood going back to the lungs and impure blood going back into the body.

If impure blood goes into the body and pure blood back into the lungs, how do these babies survive?

In order to survive, infants born with this defect need to have at least one or more communications which allow the red blood and the blue blood to mix so that at least a part of the pure red blood goes into the body circulation. These connections may be in the form of ASD, VSD or PDA.

**What Symptoms Do These Babies Present with?**

Most of these children present in the newborn period with cyanosis and/or breathing difficulties. If the diagnosis is not made immediately and proper treatment is not started, the baby could die within hours or a few days.

**What Treatment Can Be Offered To These Babies?**

To improve the oxygen supply to the body, a special procedure called balloon atrial septostomy (BAS) is done. It involves enlarging the natural hole present in the interatrial septum. This helps the baby by improving the mixing between the pure and the impure blood, thereby reducing the cyanosis in such cases.

**What Is The Definitive Mode Of Treatment For Babies With TGA?**

There are two types of surgeries that are used to correct TGA. Your doctor can give you the details.