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CHAPTER

13

SOME VERY COMMON SICKNESSES

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SOME VERY COMMON SICKNESSES

DEHYDRATION

Most children who die from diarrhea die because they do not have enough water left in their bodies. This lack of water is called dehydration.

Dehydration results when the body loses more liquid than it takes in. This can happen with severe diarrhea, especially when there is vomiting as well. It can also happen in very serious illness, when a person is too sick to take much food or liquid.

People of any age can become dehydrated, but **dehydration develops more quickly and is most dangerous in small children.**

A baby needs water to drink, especially in hot weather. Often a mother does not give water to her baby till he is six months old. A baby cannot tell his mother he is thirsty, but needs water several times a day. The mother should take water from a clean source and keep it in a covered pot. If possible, she should boil the water for her baby. Especially when the baby has diarrhoea or vomiting, he loses a lot of water from his body. He needs extra water many times a day.

Any child with watery diarrhea is in danger of dehydration.

It is important that everyone—especially mothers—know the signs of dehydration and how to prevent and treat it.

Signs of dehydration:

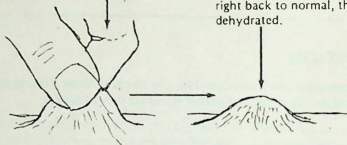
- little or no urine; the urine is dark yellow
- sudden weight loss
- dry mouth
- sunken, tearless eyes
- sagging in of the 'soft spot' in infants



- loss of elasticity or stretchiness of the skin

Lift the skin between two fingers, like this. . . .

If the skin fold does not fall right back to normal, the child is dehydrated.








Very severe dehydration may cause rapid, weak pulse (see Shock, p. 89) fast, deep breathing, fever, or fits (convulsions, p. 217)

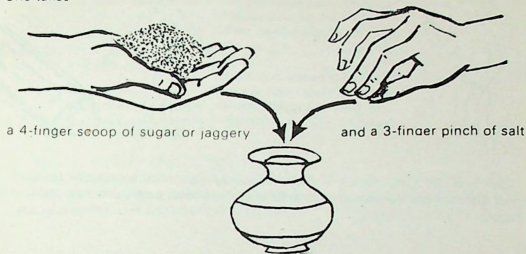
Prevention and treatment of dehydration:

- A dehydrated person should drink large amounts of liquids: water, tea, soup, etc. But **do not wait for dehydration to begin.**
- Dehydration can usually be prevented if a person with diarrhea, with or without vomiting, is given plenty of liquids or Rehydration Drink from the very first. This is especially important for small children with watery stools.
- Especially useful in the prevention and treatment of dehydration is the following Rehydration Drink:

REHYDRATION DRINK—TO PREVENT AND TREAT DEHYDRATION

<p>In 1 liter of boiled water</p>	<p>put</p>	<p>2 level tablespoons of sugar or honey (honey is better)</p>	<p>and</p>	<p>$\frac{1}{4}$ teaspoon salt</p>
				
				<p>and</p>
				<p>$\frac{1}{4}$ teaspoon bicarbonate of soda.</p>
				
				<p>If you do not have soda, use another $\frac{1}{4}$ teaspoon salt.</p>
<p>If available, add half a cup of orange juice or a little lemon juice to the Drink.</p>				

A mother can also make the Rehydration Drink like this:
She takes



a 4-finger scoop of sugar or jaggery

and a 3-finger pinch of salt

and add it to 1 litre of boiled and cooled water.

Give the dehydrated person sips of this drink every 5 minutes, day and night, until he begins to urinate normally. A large person needs 3 or more liters a day. A small child needs at least 1 liter a day.

Keep giving Rehydration Drink **often** in small sips, even if the person is vomiting. If the dehydrated person cannot drink enough to correct the dehydration or if he vomits all he drinks, find a health worker who can give liquid through the veins (intravenous solution).

Note: When possible, make Rehydration Drink using bee's honey or jaggery rather than sugar. Honey consists partly of a simple sugar (glucose) that the body can use more easily. Even better than honey is glucose powder. Making Rehydration Drink with glucose or honey is especially important if the child is very malnourished or has severe diarrhoea. In some areas you can get small packages of a Rehydration Mix containing glucose together with the right combination of different salts (see p. 416)

DIARRHEA AND DYSENTERY

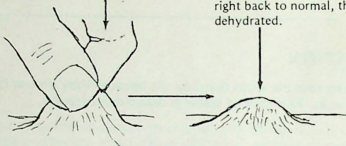
When a person has loose or watery stools, he has *diarrhoea*. If mucus and blood can be seen in the stools, he has *dysentery*.

Diarrhoea can be mild or serious. It can be *acute* (sudden and severe) or *chronic* (lasting many days).

Diarrhoea is more common and more dangerous in young children, especially those who are poorly nourished.

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Lift the skin between two fingers, like this. . . .



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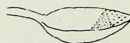
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and

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and

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bicarbonate of
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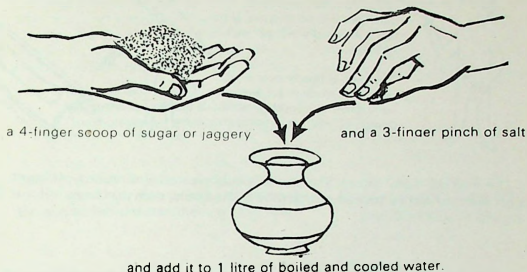


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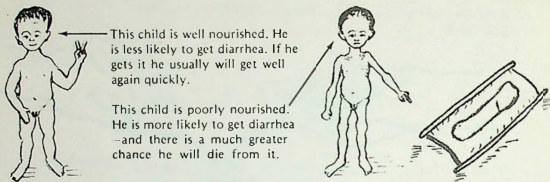
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DIARRHEA AND DYSENTERY

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Diarrhea can be mild or serious. It can be *acute* (sudden and severe) or *chronic* (lasting many days).

Diarrhea is more common and more dangerous in young children, especially those who are poorly nourished.



Diarrhea has many causes. Sometimes special treatment is needed. However, **most diarrhea can be treated successfully in the home**, even if you are not sure of the exact cause or causes.

THE MAIN CAUSES OF DIARRHEA:

poor nutrition (p.185) This weakens the child and makes diarrhea from other causes more frequent and worse.

virus infection or 'intestinal flu' (diarrhea usually mild)

an infection of the gut caused by bacteria (p.155), amebas (p.197), or giardia (p.198)

worm infections (p.193 to 197)

infections outside the gut (ear infections, p. 355 tonsillitis, p. 356 measles, p 358 urinary infections, p. 278)

malaria (falciparum type-in parts of India. p. 189)

food poisoning (spoiled food, p.170)

inability to digest milk (mainly in severely malnourished children and certain adults) These children may need a special enzyme tablet. Consult a health worker. difficulty babies have digesting foods that are new to them

allergies to certain foods (seafood, crayfish, etc., p203); occasionally babies are allergic to cow's milk or other milk

side effects produced by certain medicines, such as ampicillin or tetracycline

laxatives, purges, irritating or poisonous plants, certain poisons

eating too much unripe fruit or heavy, greasy foods

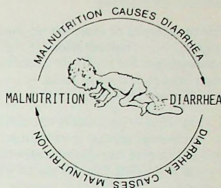
Preventing diarrhea:

Although diarrhea has many different causes, the most common are **infection and poor nutrition**. **With good hygiene and good food, most diarrhea could be prevented**. And if treated correctly, fewer children who get diarrhea would die.

Children who are poorly nourished get diarrhea and die from it far more often than those who are well nourished. Yet diarrhea itself can be part of the cause of malnutrition. And if malnutrition already exists, diarrhea rapidly makes it worse.

**Malnutrition causes diarrhea.
Diarrhea causes malnutrition.**

This results in a vicious circle, in which each makes the other worse. For this reason, **good nutrition is important in both the prevention and treatment of diarrhea.**



THE 'VICIOUS CIRCLE' OF
MALNUTRITION AND DIARRHEA
TAKES MANY CHILDREN'S LIVES.

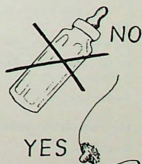
**Prevent diarrhea by preventing malnutrition.
Prevent malnutrition by preventing diarrhea.**

To learn about the kinds of foods that help the body resist or fight off different illnesses, including diarrhea, read Chapter 11.

The prevention of diarrhea depends both on **good nutrition** and **cleanliness**. Many suggestions for personal and public cleanliness are given in Chapter 12. These include the use of **latrines**, the importance of **clean water**, and the **protection of foods** from dirt and flies.

Here are some other important suggestions for preventing diarrhea in babies:

- **Breast feed rather than bottle feed babies.** Give only breast milk for the first 2 months. Breast milk helps babies resist the infections that cause diarrhea. If it is not possible to breast feed a baby, feed him with a cup and spoon. **Do not use a baby bottle** because it is harder to keep clean and more likely to cause an infection.
- When you begin to give the baby new or solid foods, start by giving him just a little, and mashing it well. He has to learn how to digest new foods, and if he starts with too much at one time, he may get diarrhea.
- Keep the baby clean—and in a clean place. Try to keep him from putting dirty things in his mouth.
- Do not give babies unnecessary medicines.



**BREAST FEEDING HELPS
PREVENT DIARRHEA**

Treatment of diarrhea:

For most cases of diarrhea no medicine is needed. If the diarrhea is severe, the biggest danger is **dehydration**. If the diarrhea lasts a long time, the biggest danger is **malnutrition**. So the most important part of treatment has to do with giving **enough liquids** and **good food**. No matter what the cause of diarrhea, always take care with the following:

1. **PREVENT OR CONTROL DEHYDRATION.** A person with watery diarrhea must drink large amounts of liquids. If diarrhea is severe or there are signs of dehydration, give him Rehydration Drink (p. 182). Even if he does not want to drink, gently insist that he do so. Have him take several swallows every few minutes.

2. **MEET NUTRITIONAL NEEDS. A person with diarrhea needs food as soon as he will eat.** This is especially important in small children or persons who are already poorly nourished.

- A baby with diarrhea should go on breast feeding.
- A small or underweight child, or anyone who is thin and weak, should get plenty of body-building foods (proteins) and energy foods all the time he has diarrhea—and also when he gets well. If he stops eating because he is too sick or is vomiting, he should eat again as soon as he can. **Although giving food may cause more frequent stools at first, it can save his life.**
- If a child who is underweight has diarrhea that lasts for many days or keeps coming back, give him more food rich in protein. Often no other treatment is needed.
- When an older child or adult who is **well nourished** has a severe case of acute diarrhea, he may recover more quickly on a liquid diet of teas, broths, or Rehydration Drink. But if the diarrhea lasts more than 1 day, he should begin taking food.

FOODS FOR A PERSON WITH DIARRHEA

<p>When the person is vomiting or feels too sick to eat, he should drink:</p> <p>tea</p> <p>rice water</p> <p>chicken, meat, egg, or bean broth</p> <p>sweetened drinks</p> <p>REHYDRATION DRINK</p> <p>Breast milk</p>	<p>As soon as the person is able to eat, in addition to giving the drinks listed at the left, he should eat a balanced selection of the following foods or similar ones:</p> <table border="0"> <thead> <tr> <th data-bbox="409 960 606 974">energy foods</th> <th data-bbox="704 960 849 974">body-building foods</th> </tr> </thead> <tbody> <tr> <td data-bbox="409 981 606 1014">ripe or cooked bananas rice</td> <td data-bbox="663 981 849 1014">dals and other pulses beans, lentils, or peas (well cooked and mashed)</td> </tr> <tr> <td data-bbox="409 1021 606 1055">dalia (broken wheat) or other well cooked grains</td> <td data-bbox="663 1021 849 1055">milk (sometimes this causes problems, see the next page)</td> </tr> <tr> <td data-bbox="409 1061 606 1095">fresh maize (well cooked and mashed)</td> <td data-bbox="663 1061 849 1095">eggs (boiled)</td> </tr> <tr> <td data-bbox="409 1102 606 1135">potatoes papaya</td> <td data-bbox="663 1102 849 1135">chicken (boiled or roasted) meat, well cooked, without fat or grease</td> </tr> <tr> <td></td> <td data-bbox="663 1142 849 1176">fish (well cooked)</td> </tr> </tbody> </table>	energy foods	body-building foods	ripe or cooked bananas rice	dals and other pulses beans, lentils, or peas (well cooked and mashed)	dalia (broken wheat) or other well cooked grains	milk (sometimes this causes problems, see the next page)	fresh maize (well cooked and mashed)	eggs (boiled)	potatoes papaya	chicken (boiled or roasted) meat, well cooked, without fat or grease		fish (well cooked)
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DO NOT EAT OR DRINK													
fatty or greasy foods most raw fruits	highly seasoned food												
	alcoholic drinks any kind of laxative or purge												

Diarrhea and milk:

Breast milk is the best food for babies. Keep giving breast milk when the baby has diarrhea. It does not cause diarrhea and will help the baby get better quickly.

Cow's milk, Buffalo's milk or Goat's milk can be good sources of protein for children who have diarrhea. However, if the child is badly malnourished, he may have trouble digesting the milk, and this may cause even more diarrhea. If this happens, try giving less milk and mixing it with other foods. But remember: a **poorly nourished child with diarrhea must have enough protein**, so if less milk is given, well-cooked and mashed foods such as dals, beans, egg yolk, chicken, meat or fish should be added. Beans are easier to digest if their skins have been peeled off and they are boiled and mashed.

As the child gets better, he will usually be able to drink more milk without getting diarrhea.

Medicines for diarrhea:

For most cases of diarrhea no medicines are needed. But in certain cases, using the right medicine can be important. However, many of the medicines commonly used for diarrhea do little or no good. Some are actually harmful:

GENERALLY IT IS BETTER NOT TO USE THE FOLLOWING MEDICINES IN THE TREATMENT OF DIARRHEA:

'Anti-diarrhea' medicines with kaolin and pectin (such as *Kaopectate*, p.417) make diarrhea thicker and less frequent, but they do not correct dehydration or control infection. Some anti-diarrhea medicines, like diphenoxylate (*Lomotil*) may even make infections last longer.



'ANTI-DIARRHEA MEDICINES' ACT LIKE PLUGS. THEY KEEP IN THE INFECTED MATERIAL THAT NEEDS TO COME OUT.



'Anti-diarrhea' mixtures containing neomycin or streptomycin should not be used, as these may irritate the gut and do more harm than good.

Antibiotics like ampicillin and tetracycline are useful in some cases of diarrhea. But they themselves sometimes cause diarrhea, especially in small children. If, after taking these antibiotics for more than 2 or 3 days, diarrhea gets worse rather than better, stop taking them—the antibiotics may be the cause.

Do not give tetracycline to a child below 8 years.

Chloramphenicol has certain dangers in its use (see p.401) and should never be used for mild diarrhea or given to babies less than 1 month old.

Laxatives and purges should never be given to persons with diarrhea. They will make it worse and increase the danger of dehydration.

For some effective home cures for mild diarrhoea, see Chapter 1

Special treatment in different cases of diarrhea:

While most cases of diarrhea can be treated by giving plenty of liquids and nutritious food, sometimes special treatment is needed.

In considering treatment, keep in mind that some cases of diarrhea, especially in small children, are caused by **infections outside the gut**. Always check for **infections of the ears**, the **throat**, and the **urinary system**. If found, these infections should be treated. Also look for signs of **measles**.

If the child has mild diarrhea together with signs of a cold, the diarrhea is probably caused by a virus, or 'intestinal flu', and no special treatment is called for. Give lots of liquids.

In certain difficult cases of diarrhoea, you may need an analysis of the stools or other tests to know how to treat it correctly. But usually you can learn enough by asking specific questions, seeing the stools, and looking for certain signs. Here are some guidelines for treatment according to signs.

1. Sudden, mild diarrhea. No fever. (Upset stomach? 'Intestinal flu'?)

- Drink lots of liquids. Usually no special treatment is needed.

Kaolin is useless in treating this as it does not attack the infection. nor treat dehydration. (see p417).

- If severe colic (painful cramps) is a problem, an antispasmodic like belladonna may help. (For precautions and dosage, see p. 415)

2. Diarrhea with vomiting. (Many causes)

- If a person with diarrhea is also vomiting, the danger of dehydration increases, especially in small children. It is very important to give the Rehydration Drink (p. 182) tea, fruit juice, or whatever liquids he will take. Give sips every 5 to 10 minutes. If vomiting does not stop soon, you can use medicines like promethazine (p. 419) or phenobarbital (p.422).



- If you cannot control the vomiting or if the dehydration gets worse, seek medical help fast.

3. Diarrhea with mucus and blood. Often chronic. No fever. (Possibly amebic dysentery. For more details, see page 197)

Use metronidazole (p407) Take the medicine according to the recommended dose. If the diarrhoea continues after treatment for 4 days, seek medical advice.

4. Acute diarrhea with fever, with or without blood. (Bacterial dysentery? Typhoid? Malaria?)

- If the person with diarrhea has a fever lasting more than 6 hours after beginning treatment for dehydration, and seems very ill, give ampicillin if possible (p. 399). If not, give tetracycline (p. 400).

- If the person's condition is very poor or he is not improving with ampicillin or tetracycline, seek medical help. If there are signs of typhoid fever (see p. 229), give chloramphenicol (p. 401) in the recommended dose.

- In areas where the *falciparum* type of malaria is common, it is a good idea that persons with diarrhea and fever also be treated with chloroquine (see p. 405), especially if they have a large spleen.

5. Yellow, bad-smelling diarrhea with bubbles or froth, without blood or mucus. (Giardia? See p. 198)

- This may be caused by microscopic parasites called Giardia or perhaps by malnutrition. In either case, plenty of liquid, nutritious food, and rest are often the only treatment needed. Severe giardia infections can be treated with metronidazole (p. 407). Mepacrine (*Atabrine*) is cheaper, but less effective.

6. Chronic diarrhea (diarrhea that lasts a long time or keeps coming back).

- This is most commonly due to malnutrition, less commonly to a chronic infection such as that caused by amebas. See that the child eats more nutritious food, especially foods rich in proteins (p. 128). If the diarrhea still continues, seek medical help.

7. Diarrhea like rice water. (Cholera?)

- 'Rice water' stools are a sign of cholera (see p. 231). In countries where this dangerous sign occurs, cholera often comes in **epidemics** (striking many people at once) and is usually worse in older children and adults. **Cholera should be reported to the authorities.** Dehydration is extreme, especially if there is vomiting also. Treat dehydration continuously and either give twice the usual dose of tetracycline (p. 400) or give the normal dose of chloramphenicol (p. 401). Seek medical help. Deaths in cholera are due to dehydration.

Care of Babies with Diarrhea

Diarrhea is especially dangerous in babies and small children. Often no medicine is needed, but special care must be taken because a baby can die very quickly of dehydration.

- Continue breast feeding and also give sips of Rehydration Drink.

GIVE HIM BREAST MILK



- If vomiting is a problem, give breast milk often, but only a little at a time. Also give Rehydration Drink in small sips every 5 to 10 minutes.

AND ALSO
REHYDRATION DRINK

- If there is no breast milk, try giving frequent small feedings of some other milk or milk substitute (like milk made from soybeans) **mixed to half normal strength with boiled water**. If milk seems to make the diarrhea worse, give some other protein (chicken, lean meat, or skinned mashed beans, eggs, mixed with honey, sugar, jaggery, or well-cooked rice or another starchy food, and boiled water).



- If the child is younger than 1 month, try to find a health worker before giving any medicine. If there is no health worker and the child is very sick, give him an 'infant syrup' that contains ampicillin: (see p. 399) It is better not to use other antibiotics.

When to Seek Medical Help in Cases of Diarrhea

Diarrhea and dysentery can be very dangerous—especially in small children. **In the following situations you should get medical help:**

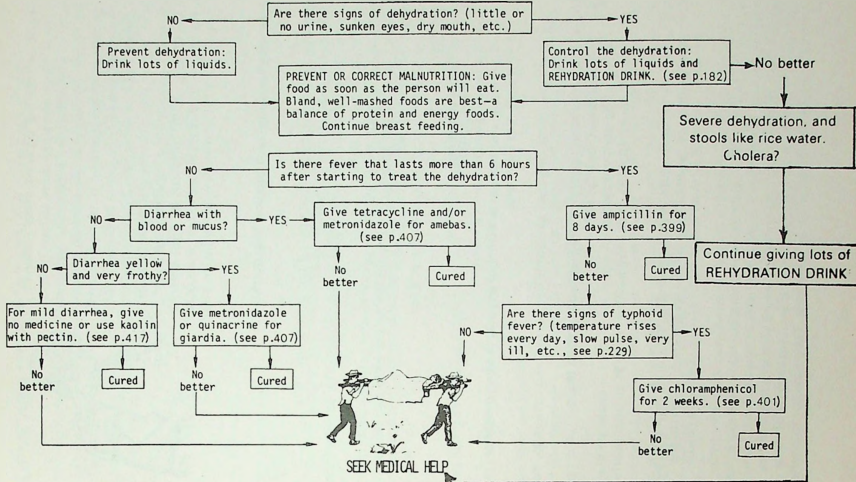
- if diarrhea lasts more than 4 days and is not getting better—or more than 1 day in a small child with severe diarrhea
- if the person is dehydrated and getting worse
- if the child vomits everything he drinks, or drinks nothing
- if the child begins to have fits, or if the feet and face swell
- if the person was very sick, weak, or malnourished before the diarrhea began (especially a little child or a very old person)
- if there is much blood in the stools, this can be dangerous even if there is little diarrhea (see gut obstruction, p. 107)

VOMITING

Many people, especially children, have an occasional 'stomach upset' with vomiting. Often no cause can be found. There may be mild stomach or gut ache or fever. This kind of simple vomiting usually is not serious and clears up by itself.

THE CARE OF A PERSON WITH ACUTE DIARRHEA

DIARRHEA



Vomiting is one of the signs of many different problems, some minor and some quite serious, so it is important to examine the person carefully. Vomiting often comes from a problem in the stomach or guts, such as: an infection (see diarrhea, p. 183), poisoning from spoiled food (p.170), or 'acute abdomen' (for example, appendicitis or something blocking the gut, p.107). Also, almost any sickness with high fever or severe pain may cause vomiting, especially malaria (p. 227), hepatitis (p. 209), tonsillitis (p. 356) earache (p. 355), meningitis (p 226), urinary infection (p. 278), gallbladder pain (p.375) or migraine headache (p. 199)



Danger signs with vomiting—seek medical help quickly!

- dehydration that increases and that you cannot control, (p. 181)
- severe vomiting that lasts more than 24 hours
- violent vomiting, especially if vomit is dark green, brown, or smells like feces (signs of obstruction, p. 107)
- constant pain in the gut, especially if the person cannot defecate (shit) or if you cannot hear gurgles when you put your ear to the belly (see acute abdomen: obstruction, appendicitis, p.107)
- vomiting of blood (ulcer, p. 149; cirrhosis, p. 374)

To help control simple vomiting:

- Eat nothing while vomiting is severe.
- Sip some tea with sugar but without any milk. Adding ginger or lime juice may also help.
- Sip a cola drink or ginger ale. Some herbal teas, like camomile, may also help.
- For dehydration give small frequent sips of cola, tea, or Rehydration Drink (p.182).
- If vomiting does not stop soon, use a vomit-control medicine like promethazine (p.419), diphenhydramine (p. 419) or phenobarbital (p. 422).

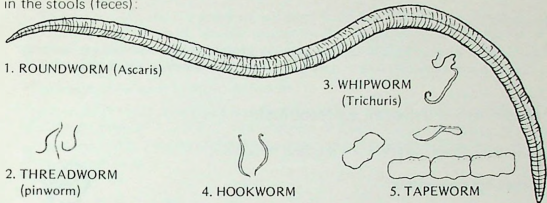


Most of these come in pills, syrups, injections, and suppositories (soft pills you push up the *anus*). Tablets or syrup can also be put up the anus. Grind up the tablet in a little water. Put it in with an enema set or syringe without a needle.

When taken by mouth, the medicine should be swallowed with very little water and nothing else should be swallowed for 5 minutes. Never give more than the recommended dose. Do not give a second dose until dehydration has been corrected and the person has begun to urinate. If severe vomiting and diarrhea make medication by mouth or anus impossible, give an injection of 1 of these vomit-control medicines. Promethazine may work best. Take care not to give too much.

WORMS AND OTHER INTESTINAL PARASITES

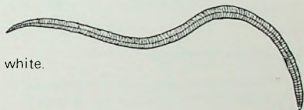
There are many types of worms and other tiny animals (parasites) that live in people's intestines and cause diseases. Those which are larger are sometimes seen in the stools (feces):



The only worms commonly seen in the stools are roundworms, threadworms, and tapeworms. Hookworms and whipworms may be present in the gut in large numbers without ever being seen in the stools.

Note: The most popular 'worm medicines' contain piperazine. These work only for roundworms and threadworms. Other worms must be treated with other medicines.

Roundworm (*Ascaris*):



20 to 30 cm. long. Color: pink or white.

How they are spread:

Feces-to-mouth. Through lack of cleanliness, the roundworm eggs pass from one person's stools to another person's mouth.

Effect on health:

Once the eggs are swallowed, young worms hatch and enter the bloodstream; this may cause general itching. The young worms then travel to the lungs, sometimes causing a dry cough or, at worst, pneumonia with coughing of blood. The young worms are coughed up, swallowed, and reach the intestines, where they grow to full size.

Many roundworms in the intestines may cause discomfort, indigestion, and weakness. Children with many roundworms often have very large, swollen bellies. Rarely, roundworms may cause asthma, fits, or a dangerous obstruction or blockage in the gut (see p.107) When the child has a fever, the worms sometimes come out in the stools or crawl out through the mouth or nose. Occasionally they crawl into the airway and cause gagging.

Prevention:

Use latrines, wash hands before eating or handling food, protect food from flies, and follow the guidelines of cleanliness described in the first part of this chapter.

Treatment:

One dose of piperazine will usually get rid of roundworms. For dosage, see page 411. Some home remedies work fairly well. For a home remedy see chapter 1

Threadworm (Pinworm, Enterobius):

1 cm. long. Color: white. Very thin and threadlike.

How they are transmitted:

These worms lay thousands of eggs just outside the anus (ass hole). This causes itching, especially at night. When a child scratches, the eggs stick under his nails, and are carried to food and other objects. In this way they reach his own mouth or the mouths of others, causing new infections of threadworms.

**Effect on health:**

These worms are not dangerous. Itching may disturb the child's sleep.

Treatment and Prevention:

- A child who has pinworms should wear tight diapers or pants while sleeping to keep him from scratching his anus.
- Wash the child's hands and buttocks (anal area) when he wakes up and after he has a bowel movement. Always wash his hands before he eats.
- Cut his fingernails very short.
- Change his clothes and bathe him often—wash the buttocks and nails especially well.
- Put **Vaseline**, or some mustard oil in and around his anus at bedtime to help stop itching.
- Give him a worm medicine that contains piperazine. For dosage, see page 411. When one child is treated for these worms, it is wise to treat the whole family at the same time. For home remedies, see Chapter 1
- Cleanliness is the best prevention for threadworms. Even if medicine gets rid of the worms, they will be picked up again if care is not taken with personal hygiene. Pinworms only live for about 6 weeks. **By carefully following the guidelines of cleanliness, most of the worms will be gone within a few weeks, even without medicine.**

Whipworm (Trichuris, Trichocephalus):



3 to 5 cm. long. Color: pink or gray.

This worm, like the roundworm, is passed from the feces of one person to the mouth of another person. Usually this worm does little harm, but it may cause diarrhea. In children it occasionally causes part of the intestines to come out of the anus (*prolapse* of the *rectum*).

Prevention: The same as for roundworm.

Treatment: If the worms cause a problem, give thiabendazole or mebendazole. For dosage, see pages 411 and 412. For prolapse of the rectum, make the child sit in a tub of warm water. This should make the intestine pull back in. If this does not work, seek medical help.

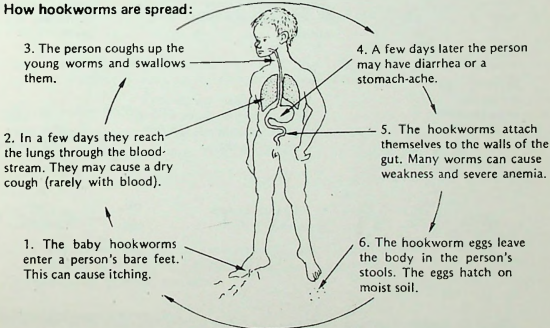
Hookworm:

1 cm. long. Color: red.



Hookworms cannot usually be seen in the feces. A stool analysis is needed to prove that they are there.

How hookworms are spread:



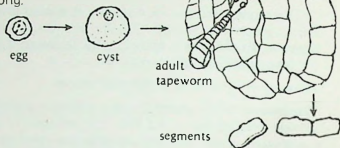
Hookworm infection can be one of the most damaging diseases of childhood. Any child who is anemic, very pale, or eats dirt may have hookworms. If possible, his stools should be analyzed.

Treatment: Use thiabendazole, mebendazole, tetrachloroethylene (T.C.E.), or bephenium. For dosage and precautions, see pages 411 and 412. Treat anemia by eating foods rich in iron and if necessary by taking iron pills (p. 147).

**Prevent hookworm: Build and use latrines.
Do not let children go barefoot.**

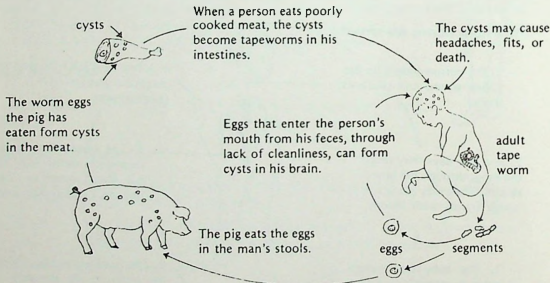
Tapeworm:

In the intestines tapeworms grow several meters long. But the small, flat, white pieces (segments) found in the feces are usually about 1 cm. long. Occasionally a segment may crawl out by itself and be found in the underclothing.



People get tapeworms from eating pork (pig meat), beef (cow meat) or other meat that is not well cooked.

Prevention: Be careful that all meat is well cooked, especially pork. Make sure no parts in the center of roasted meat are still raw.



Effect on health: Tapeworms in the intestines sometimes cause mild stomach-aches, but few other problems.

The greatest danger exists when the *cysts* (small sacs containing baby worms) get into a person's brain. This happens when the eggs pass from his stools to his mouth. For this reason, **anyone with tapeworms must follow the guidelines of cleanliness carefully—and get treatment as soon as possible.**

Treatment: Take niclosamide (see p 412), dichlorophen(p. 413) or quinacrine (mepacrine, *Atabrine*, p. 407). Follow instructions carefully. For home remedies, see Chapter 1 page 19

Trichinosis:

These worms are never seen in the stools. They burrow through the person's intestines and get into his muscles. People get these worms, like tapeworms, from eating infected pork or other meat that is not well cooked.

Effect on health: Depending on the amount of infected meat eaten, the person may feel no effects, or he may become very sick or die. From a few hours to 5 days after eating the infected pork, the person may develop diarrhea and feel sick to his stomach.

In serious cases the person may have:

- fever with chills
- muscle pain
- swelling around the eyes and sometimes swelling of the feet
- small bruises (black or blue spots) on the skin
- bleeding in the whites of the eyes

Severe cases may last 3 or 4 weeks.

Treatment: Seek medical help at once. Thiabendazole may help a little. For dosage, see p. 411. (Cortico-steroids may also help, but should be given by a health worker or doctor.)

Important: If several people who ate meat from the same pig get sick afterward, suspect trichinosis. This can be dangerous; seek medical attention.

Prevention of trichinosis:

- ♦ Eat pork and other meat only if it is well-cooked.
- ♦ Do not feed scraps of meat or leftovers from butchering to pigs.

Amebas:

These are not worms, but tiny animals—or parasites—that can be seen only with a *microscope* (an instrument that makes things look much bigger).

How they are transmitted:

The stools of infected people have millions of these tiny parasites. Because of poor sanitation, they get into the source of drinking water or into food, and other people become infected.

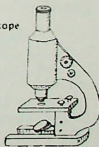
Signs of infection with amebas:

Many healthy people have amebas without becoming sick. However, amebas are a common cause of severe diarrhea or *dysentery* (diarrhea with blood)—especially in persons already weakened by other sickness or poor nutrition. Less commonly, amebas cause painful, dangerous abscesses in the liver.

Ameba as seen
under microscope



Microscope



Typical amebic dysentery consists of:

- diarrhea that comes and goes—sometimes alternating with constipation
- cramps in the belly and a need to have frequent bowel movements, even when little or nothing—or just mucus—comes out
- many loose (but usually not watery) stools with lots of mucus, sometimes stained with blood
- in severe cases, much blood; the person may be very weak and ill
- usually there is no fever

Diarrhea with blood may be caused by either amebas or bacteria. However, bacterial dysentery (*Shigella*) begins more suddenly, the stools are more watery, and there is almost always fever (p.189). As a general rule:

Diarrhea + blood + fever = bacterial infection (*Shigella*)
Diarrhea + blood + no fever = amebas

Occasionally bloody diarrhea has other causes. To be sure of the cause, a *stool analysis* may be necessary.

Sometimes amebas get into the liver and form an **abscess** or pocket of pus. This causes tenderness or pain in the right upper belly. Pain may extend into the right chest and is worse when the person walks. (Compare this with gallbladder pain, p.375) hepatitis, p.209) and cirrhosis, p. 374) If the person with these signs begins to cough up a brown liquid, an amebic abscess is draining into his lung.

Treatment:

- If possible get medical help and a stool analysis.
- Mild gut infection with amebas can be treated with metronidazole (for dosage, length of treatment, and precautions, see p 407)
- For severe dysentery or amebic abscess, take metronidazole (for dosage see p 407) If metronidazole is not available, use chloroquine (p. 405). Seek medical help.

Prevention: Make and use latrines, protect the source of drinking water, and follow the guidelines of cleanliness. Eating well and avoiding fatigue and drunkenness are also important in preventing amebic dysentery.

Giardia:

The giardia, like the ameba, is a microscopic parasite that lives in the gut and is a common cause of diarrhea, especially in children. The diarrhea may be *chronic* or intermittent (may come and go).

A person who has yellow, bad-smelling diarrhea that is frothy (full of bubbles) but without blood or mucus, probably has giardia. The belly is swollen with gas and uncomfortable, there are mild intestinal cramps, and the person farts a lot. There is usually no fever.

Giardia infections often clear up by themselves. Good nutrition helps. Severe cases are best treated with metronidazole (for dosage, see p.407). Quinacrine (p. 407) is cheaper but does not work as well.



Giardia as seen under a microscope

HEADACHES AND MIGRAINES

SIMPLE HEADACHE can be helped by rest and aspirin. It often helps to put a cloth soaked in hot water on the back of the neck and to massage (rub) the neck and shoulders gently. Some other home remedies also seem to help.

Headache is common with any sickness that causes fever. If headache is severe, check for signs of meningitis (p. 225)

Headaches that keep coming back may be a sign of a chronic illness or poor nutrition. It is important to eat well and get enough sleep. If the headaches do not go away, seek medical help.

For simple or nervous headache, folk cures sometimes work as well as modern medicine.

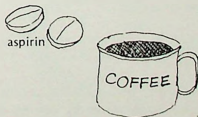


A **MIGRAINE** is a severe throbbing headache often on one side of the head only. Migraine attacks may come often, or months or years apart.

A typical migraine begins with blurring of vision, seeing strange spots of light, or numbness of one hand or foot. This is followed by severe headache, which may last hours or days. Often there is vomiting. Migraines are very painful, but not dangerous.

TO STOP A MIGRAINE, DO THE FOLLOWING AT THE FIRST SIGN:

- Take 2 aspirins with a cup of strong coffee or strong black tea.
- Lie down in a dark, quiet place. Do your best to relax. Try not to think about your problems.
- For especially bad migraine headaches, obtain pills of ergotamine with caffeine (*Cafergot*, p. 415). Take 2 pills at first and 1 pill every 30 minutes until the pain goes away. Do not take more than 6 pills in 1 day.



COLDS AND THE FLU

Colds and the flu are common virus infections that may cause runny nose, cough, sore throat, and sometimes fever or pain in the joints. There may be mild diarrhea, especially in young children.



Colds and the flu almost always go away without medicine. **Do not use penicillin, tetracycline, or other antibiotics**, as they will not help at all and may cause harm.

- Drink plenty of water and get enough rest.
- Aspirin (p. 414) or acetaminophen (p.414) helps lower fever and relieve body aches and headaches. More expensive 'cold tablets' are no better than aspirin. So why waste your money?
- **Inhale steam**; this helps to clear a stuffy nose.
- No special diet is needed. However, fruit juices, especially orange juice or lemonade, are helpful.

For treating coughs and stuffy noses that come with colds, see the next pages.

If a cold or the flu lasts more than a week, or if the person has fever, coughs up a lot of *phlegm* (mucus with pus), has shallow fast breathing or chest pain, he could be developing bronchitis or pneumonia (see p. 207 and 208). An antibiotic may be called for. The danger of a cold turning into pneumonia is greater in old people **small children** and those who have lung problems like chronic bronchitis.

Sore throat is often part of a cold. No special medicine is needed, but it may help to gargle with warm water. However, if the sore throat begins suddenly, with high fever, it could be a strep throat. Special treatment is needed (see p. 356)

Prevention of colds:

- Getting enough sleep and eating well helps prevent colds. Eating oranges, tomatoes, and other fruit containing vitamin C may also help.
- Contrary to popular belief, colds do not come from getting cold or wet but **can be made worse by getting wet**. A cold is 'caught' from others who have the infection and sneeze the virus into the air.
- To keep from giving his cold to others, the sick person should eat and sleep separately—and take special care to keep far away from small babies. He should cover his nose and mouth when he coughs or sneezes.
- To prevent a cold from leading to earache (p. 355), **do not blow your nose—just wipe it**. Teach children to do the same.

STUFFY AND RUNNY NOSES

A stuffy or runny nose can result from a cold or allergy (see next page). A lot of mucus in the nose may cause ear infections in children or sinus problems in adults.

To help clear a stuffy nose, do the following:

1. In little children, carefully suck the mucus out of the nose with a suction bulb or syringe **without a needle**, like this:



2. Older children and adults can put a little salt water into their hand and sniff it into the nose. This helps to loosen the mucus.

3. Breathing hot water vapor as described on page 205, helps clear a stuffy nose.

4. Wipe a runny or stuffy nose, but **do not blow it**. Blowing the nose may lead to earache and sinus infections.

5. Persons who often get earaches or sinus trouble after a cold can help prevent these problems by using **decongestant** nose drops like phenylephrine (p. 418) After sniffing a little salt water, put the drops in the nose like this:

With the head sideways, put 2 or 3 drops in the lower nostril. Wait a couple of minutes and then do the other side.

CAUTION: Use decongestant drops no more than 3 times a day, for no more than 3 days.



A decongestant syrup (with phenylephrine or something similar) may also help.

Prevent ear and sinus infections—wipe but do not blow your nose.

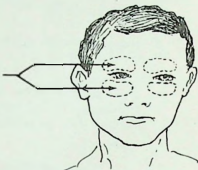
57

SINUS TROUBLE (SINUSITIS)

Sinusitis is an acute or chronic (long-term) inflammation of the sinuses or hollows in the bone that open into the nose.

Signs:

- Pain in the face above and below the eyes, here (It hurts more when you tap lightly just over the bones, or when the person bends over.)
- Thick mucus or pus in the nose, perhaps with a bad smell. The nose is often stuffy.
- Fever (sometimes).



Treatment:

- Sniff a little salt water into the nose (see p. 201)
- Put hot compresses on the face.
- Inhaling steam helps relieve congestion
- Use decongestant nose drops such as phenylephrine (*Neo-synephrine*, p. 418)
- Use an antibiotic such as tetracycline (p. 400), ampicillin (p. 399), or penicillin (p.397).
- If the person does not get better, seek medical help.

Prevention:

When you get a cold and a stuffy nose, try to keep your nose clear. Follow the instructions on page 201

HAY FEVER (ALLERGIC RHINITIS)

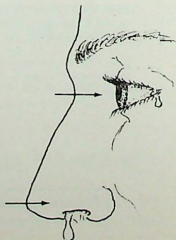
Runny nose and itchy eyes can be caused by an allergic reaction to something in the air that a person has breathed in (see the next page). It is often worse at certain times of year.

Treatment:

Use an antihistamine such as chlorpheniramine (p. 420). Dimenhydrinate (*Dramamine*, p.420), usually sold for motion sickness, also works.

Prevention:

Find out what things cause this reaction (for example: dust, chicken feathers, *pollen*, mold) and try to avoid them.



ALLERGIC REACTIONS

An allergy is a disturbance or reaction that affects only certain persons when things they are sensitive or allergic to are . . .

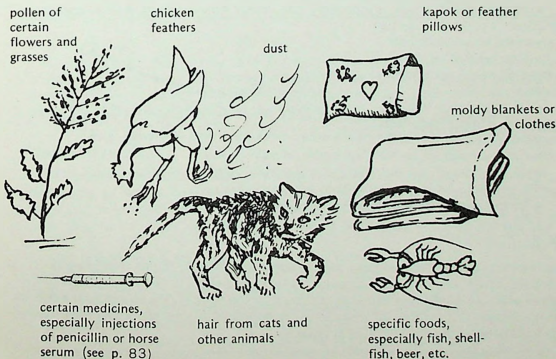
- breathed in
- eaten
- injected
- or touch the skin

Allergic reactions, which can be mild or very serious, include:

- itching rashes, lumpy patches or *hives* (p. 244)
- runny nose and itching or burning eyes (hay fever, p. 202)
- irritation in the throat, difficulty breathing, or asthma (see next page)
- allergic shock (p. 83)
- diarrhea (in children allergic to milk—a rare cause of diarrhea, p. 184)

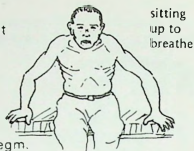
An allergy is not an infection and cannot be passed from one person to another. However, children of allergic parents also tend to have allergies.

Often allergic persons suffer more in certain seasons—or whenever they come in touch with the substances that bother them. Common causes of allergic reactions are:



ASTHMA

A person with asthma has fits or attacks of difficult breathing. Listen for a hissing or wheezing sound, especially when breathing out. When he breathes in, the skin behind his collar bones and between his ribs may suck in as he tries to get air. If the person cannot get enough air, his nails and lips may turn blue, and his neck veins may swell. Usually there is no fever. There may be cough with a little white phlegm.

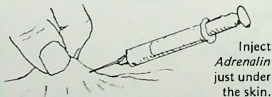


Asthma often begins in childhood and may be a problem for life. It is not **contagious**, but is more common in children with relatives who have asthma. It is generally worse during certain months of the year or at night. Persons who have had asthma for years may develop emphysema (see p. 207).

An asthma attack may be caused by eating or breathing things to which the person is allergic (see p. 203). In children asthma often starts with a common cold. In some persons nervousness or worry also plays a part in bringing on an asthma attack.

Treatment:

- If asthma gets worse inside the house, the person should go outside to a place where the air is cleanest. Remain calm and be gentle with the person. Reassure him.
- Give a lot of liquids. This loosens mucus and makes breathing easier. Breathing water vapor may also help (see p. 205).
- For mild attacks give ephedrine or theophylline (see p. 419)
- If the asthma attack is especially bad, inject **Adrenalin**. Adults: ½ ampule; children ¼ ampule. You can repeat the dose every half hour, as needed up to 3 times. For precautions, see p. 419.
- If the person has a fever, or if the attack lasts more than 3 days, or if the phlegm becomes thick and yellowish, give tetracycline capsules (p. 400) or erythromycin (p. 400).
- In rare cases, roundworms cause asthma. Try giving piperazine (p. 411) to asthmatic children if you think they have roundworms.
- **If the person does not get better, seek medical help.**
- Do not give any drugs that sedate the patient



Prevention:

A person with asthma should avoid eating or breathing things that bring on attacks. The house or work place should be kept clean. Do not let chickens or other animals inside. Put bedding out to air in the sunshine. Sometimes it helps to sleep outside in the open air. Persons with asthma may improve when they move to a different area where the air is cleaner.

If you have asthma do not smoke—smoking damages your lungs even more.

COUGH

Coughing is not a sickness in itself, but is a sign of many different sicknesses that affect the throat, lungs, or *bronchi* (the network of air tubes going into the lungs). Below are some of the problems that cause different kinds of coughs:

<p>DRY COUGH WITH LITTLE OR NO PHLEGM:</p> <p>cold or flu (p.200) worms—when passing through the lungs (p.193) measles (p.358) smoker's cough (smoking, p.178)</p>	<p>COUGH WITH MUCH OR LITTLE PHLEGM:</p> <p>bronchitis (p.207) bronchiectasis (p.208) abscess of the lung (p.208) pneumonia (p.208) asthma (p.204)</p>	<p>COUGH WITH A WHEEZE OR WHOOP AND TROUBLE BREATHING:</p> <p>asthma (p.204) whooping cough (p.360) diphtheria (p.361) heart trouble (p.371)</p>
<p>CHRONIC OR PERSISTENT COUGH:</p> <p>tuberculosis (p.219) smoker's or miner's cough (p.178) asthma (repeated attacks, p.204) chronic bronchitis (p.207) emphysema (p.207)</p>		<p>COUGHING UP BLOOD:</p> <p>tuberculosis (p.219) pneumonia (yellow, green, or blood-streaked phlegm, p.208) severe worm infection (p.193) cancer of the lung (p.178)</p>

Coughing is the body's way of cleaning the breathing system and getting rid of phlegm (mucus with pus) and germs in the throat or lungs. So when a cough produces phlegm, **do not take medicine to stop the cough, but rather do something to help loosen and bring up the phlegm.**

Treatment for cough:

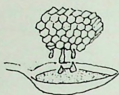
1. **To loosen mucus** and ease any kind of cough, **drink lots of water.** This works better than any medicine. (However, potassium iodide may help. See page 418)

Also **breathe hot water vapors.** Sit on a chair with a bucket of very hot water at your feet. Place a sheet over your head and cover the bucket to catch the vapors as they rise. Breathe the vapors deeply for 15 minutes. Repeat several times a day. Some people like to add mint or eucalyptus leaves or *Vaporub*, or tincture benzoin but hot water works just as well alone.



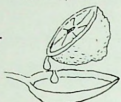
2. For all kinds of cough, especially a dry cough, the following cough syrup can be given:

Mix: 1 part
honey



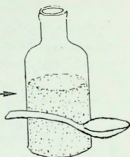
+

1 part
lemon juice



+

1 part
gin or rum



For home remedies see p. 13

Take a teaspoonful every 2 or 3 hours. For little children and people who have difficulty in breathing, leave out the alcohol.

3. For a severe dry cough that does not let you sleep, you can take a syrup with codeine (p. 418), Tablets of aspirin with codeine (or even aspirin alone) also help. If there is a lot of phlegm or wheezing, do not use codeine.

4. For a cough with wheezing (difficult, noisy breathing), see Asthma (p. 204), Chronic Bronchitis (p. 207), and Heart Trouble (p. 371).

5. Try to find out what sickness is causing the cough and treat that. If the cough lasts a long time, if there is blood, pus, or smelly phlegm in it, or if the person is losing weight or has continual difficulty breathing, see a health worker.

6. If you have any kind of a cough, do not smoke. Smoking damages the lungs.

To prevent a cough, do not smoke.

To cure a cough, treat the illness that causes it—and do not smoke.

To calm a cough, and loosen phlegm, drink lots of water—and do not smoke.

HOW TO DRAIN MUCUS FROM THE LUNGS (POSTURAL DRAINAGE):

When a person who has a bad cough is very old or weak and cannot get rid of the sticky mucus or phlegm in his chest, it will help if he drinks a lot of water. Also do the following:

- First, have him breathe hot water vapors to loosen the mucus.
- Then have him lie partly on the bed, with his head and chest hanging over the edge. Pound him lightly on the back. This will help to bring out the mucus.



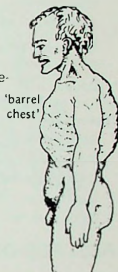
BRONCHITIS

Bronchitis is an infection of the bronchi or tubes that carry air to the lungs. It causes a noisy cough, often with mucus or phlegm. Bronchitis is usually caused by a virus, so antibiotics do not generally help. **Use antibiotics only if the bronchitis lasts more than a week** and is not getting better, if the person shows signs of **pneumonia** (see the following page), or if he already has a **chronic lung problem**.

CHRONIC BRONCHITIS:

Signs:

- A cough, with mucus that lasts for months or years. Sometimes the cough gets worse, and there may be fever. A person who has this kind of cough, but does not have another long-term illness such as tuberculosis or asthma, probably has chronic bronchitis.
- It occurs most frequently in older persons who have been heavy smokers.
- It can lead to *emphysema*, a very serious and incurable condition of the lungs. A person with emphysema has a hard time breathing, especially with exercise, and his chest becomes big 'like a barrel'.



Emphysema can result from chronic asthma or chronic bronchitis.

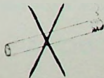
Treatment:

- Stop smoking.
- Take an anti-asthma medicine with ephedrine or theophylline (p. 418 -419)
- Persons with chronic bronchitis should use ampicillin or tetracycline every time they have a cold or 'flu' with a fever.
- If the person has trouble coughing up sticky phlegm, have him breathe hot water vapors (p. 205) and then help him with postural drainage (see p 206).



If you have a chronic cough
(or want to prevent one),

do not smoke!



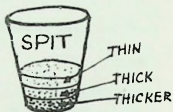
BRONCHIECTASIS

When the elastic tissue of the lung is damaged either by infection, by too much smoking, or by inhaling too much smoke and dust, the person gets bronchiectasis.

Signs:

- Cough with a lot of white phlegm, especially in the morning.

To test for bronchiectasis, ask the person to spit the phlegm into a glass. Let it stand. After sometime the phlegm will separate into 3 layers as shown.



- Occurs in heavy smokers and also in people who live in overcrowded places, near factories, etc.
- Usually no fever
- Can lead to **emphysema**

Treatment:

- Stop smoking
- Postural drainage (p. 206). Especially in the morning.
- Steam inhalation
- Diet rich in protein (p. 128-129) helps to make new tissues
- If possible, try to change your place of living.

ABSCESS OF THE LUNG

This is caused by an obstruction of the **bronchioles** (thin branches of the bronchi inside the lungs, see illustration on p209) The bronchiole gets infected and forms an abscess. The pus drains into the lungs and is coughed out as phlegm. This is a dangerous condition as the infection can spread to the entire lung.

Signs:

- Cough with thick, yellow and foul - smelling phlegm
- high fever which decreases once a day with sweating
- rapid pulse
- patient very ill.

Treatment:

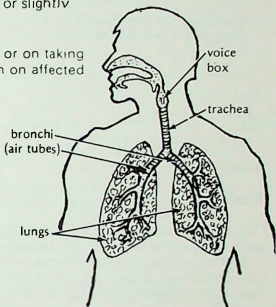
- Postural drainage (see p. 206)
- penicillin injection (p. 398) if penicillin is not available, use ampicillin or tetracycline (p. 399 and 400)
- aspirin or acetaminophen for fever.
- steam inhalation
- seek medical help

PNEUMONIA

Pneumonia is an acute infection of the lungs. It often occurs after other respiratory illnesses such as measles, whooping cough, flu, bronchitis, asthma—or any very serious illness, and is especially dangerous in children.

Signs:

- Rapid, shallow breathing, sometimes with wheezing. The nostrils may spread with each breath.
- Cough (often with yellow, greenish, or slightly bloody mucus).
- Chest pain increases with coughing or on taking deep breaths; improves by lying down on affected side.
- High fever.
- The person looks very ill.
- A very sick child who takes more than 50 **shallow** breaths a minute probably has pneumonia. (If breathing is rapid and **deep**, check for dehydration, p. 181)

**Treatment:**

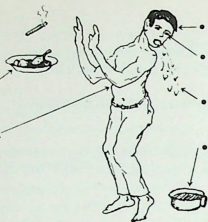
- For pneumonia, treatment with antibiotics can make the difference between life and death. Give penicillin (p. 397) or sulfonamide tablets (p. 402). In serious cases, inject procaine penicillin (p. 399) or ampicillin (p. 399). Give small children $\frac{1}{4}$ to $\frac{1}{2}$ the adult dose.
- Give aspirin or acetaminophen (p. 414) to lower the temperature and lessen the pain.
- Give plenty of liquids. If the person will not eat, give him liquid foods or Rehydration Drink (see p. 182).
- Ease the cough and loosen the mucus by giving the person plenty of water and having him breathe hot water vapors (see p. 205). Postural drainage may also help (see p. 206).
- If the person is wheezing, an anti-asthma medicine with theophylline or ephedrine may help.

HEPATITIS

Hepatitis is a virus infection that harms the liver. Hepatitis often causes little or no rise in temperature. The disease is usually mild in small children and more serious in older persons. It often comes as an epidemic.

Signs:

- Does not want to eat or smoke. Often goes days without eating anything.
- Sometimes there is pain on the right side near the liver.



- May have a fever.
- After a few days, the eyes turn yellow.
- Sight or smell of food may cause vomiting.
- The urine turns dark yellow or brown, and the stools become whitish.

In general, the person is very sick for 2 weeks and remains very weak for 1 to 3 months after.

Treatment:

- Antibiotics do not work against hepatitis. In fact some medicines will cause added damage to the sick liver. **Do not use medicines.**
- The sick person should rest and drink lots of liquids. If he refuses most food, give him orange juice, papaya, and other fruit, sugarcane juice, **mashed beans, dal, vegetables, chicken or other proteins** (p. 128). It may help to take vitamins.
- To control vomiting, see p. 192.
- When the sick person can eat, give a balance of energy foods and protein. Beans, meat, chicken, and boiled eggs are good. Avoid lard and fatty foods. **Do not drink any alcohol** for a long time afterward.

Prevention:

- The hepatitis virus passes from the stool of one person to the mouth of another by way of contaminated water or food (see p. 160). To prevent others from getting sick, it is very important to bury or burn the sick person's stools and to keep him very clean. The person providing care should wash his hands well after each time he goes near the sick person.
- Small children often have hepatitis without any signs of sickness, but they can spread the disease to others. It is very important that everyone in the house follow all the guidelines of cleanliness with great care (see pages 167 to 171).

WARNING: Hepatitis can also be transmitted by giving injections with needles that are not sterile (not well boiled). **Always boil needles and syringes before each use.**

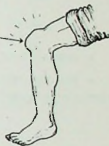
ARTHRITIS (PAINFUL, INFLAMED JOINTS)

Most chronic joint pain, or arthritis, in older people cannot be cured completely. However, the following offer some relief:

- **Rest.** If possible, avoid hard work and heavy exercise that bother the painful joints. If the arthritis causes some fever, it helps to take naps during the day.
- **Place hot compresses** (cloths soaked in hot water) on the painful joints (see p. 235 to p. 236)
- **Aspirin** helps relieve pain; the dose for arthritis is higher than that for calming other pain. Take 3 tablets, 4 to 6 times a day. If your ears begin to ring, take less. To avoid stomach problems caused by aspirin, take it with food, milk, bicarbonate of soda, or plenty of water.
- It is important to do simple **exercises** to help maintain or increase the range of motion in the painful joints.

If only one joint is swollen and feels hot, it probably is infected—especially if there is fever. Use an antibiotic such as penicillin (see p. 397) and if possible see a health worker.

Painful joints in young people and children may be a sign of other serious illness, such as rheumatic fever (p. 356) or tuberculosis (p. 219)



BACK PAIN

Back pain has many causes. Here are some:

Chronic upper back pain with cough and weight loss may be TB of the lungs (p. 219)



Mid back pain in a child may be TB of the spine especially if the backbone has a hump or lump.

Low back pain that is worse the day after heavy lifting or straining may be a sprain.

Severe low back pain that first comes suddenly when lifting or twisting may be a *slipped disc*,

especially if one leg or foot becomes painful or numb and weak. This can result from a pinched nerve.

Standing or sitting wrong, with the shoulders drooped, is a common cause of backache.



In older people, chronic back pain is often arthritis.

Pain in the upper right back may be from a gallbladder problem (p. 375)

Acute (or chronic) pain here may be a urinary problem (p. 278)

Low backache is normal for some women during menstrual periods or pregnancy (p. 294)

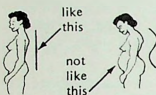
Very low back pain sometimes comes from problems in the uterus, ovaries, or rectum.

Treatment and prevention of back pain:

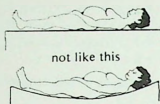
- If back pain has a cause like TB, a urinary infection, or gallbladder disease, treat the cause. Seek medical help if you suspect a serious disease.

- Simple backache, including that of pregnancy, can often be prevented or made better by:

always standing straight



sleeping on a firm flat surface like this or on the floor

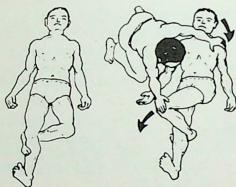


back-bending exercises



- Aspirin and hot soaks (p. 235) help calm most kinds of back pain.
- For low back pain that comes from lifting or straining, quick relief can sometimes be brought like this:

Have the person lie with one foot tucked under his knee.



Then, holding this shoulder down,

forcefully push this knee over so as to twist the back.

Do this first on one side and then the other.

CAUTION: Do not try this if the back pain is from a fall or injury.

- If back pain from lifting or twisting is sudden and severe with knife-like pain when you bend over, if the pain goes into the leg(s), or if a foot becomes numb or weak, this is serious. A nerve coming from the back may be 'pinched' by a slipped disc (pad between the bones of the back). It is best to rest flat on your back for a few days. It may help to put something firm under the knees and mid back.



- Take aspirin and use hot soaks. If pain does not begin to get better in a few days, seek medical advice.

VARICOSE VEINS

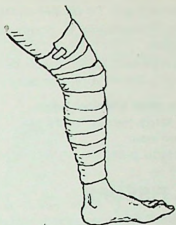
Varicose veins are veins that are swollen, twisted, and often painful. They are often

seen on the legs of older people and of women who are pregnant or who have had many children.

Treatment:

There is no medicine for varicose veins. But the following will help:

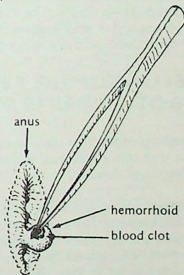
- Do not spend much time standing or sitting with your feet down. If you have no choice but to sit or stand for long periods, try to lie down with your feet up for a few moments every half hour. Also, sleep with your feet up (on pillows).
- Use elastic stockings (support hose) or elastic bandages to help hold in the veins. Be sure to take them off at night.
- Taking care of your veins in this way will help prevent chronic sores or *varicose ulcers* on the ankles (p.254).



PILES (HEMORRHOIDS)

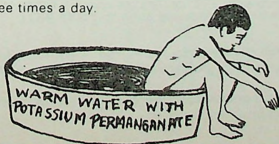
Piles or hemorrhoids are varicose veins of the anus or rectum, which feel like little lumps or balls. They may be painful, but are not dangerous. They frequently appear during pregnancy and may go away afterwards.

If a hemorrhoid begins to bleed, the person will have signs of anemia (see p.146)



Treatment:

- **Sitz bath.** To get relief from pain, heat a tub full of water. Add a pinch of potassium permanganate. Soak your buttocks in this hot water for half an hour. Do this two or three times a day.



- Certain bitter plant juices (witch hazel, cactus, etc.) dabbed on the hemorrhoids help shrink them. So do hemorrhoid **suppositories**. (see p.424)
- Apply 'Preparation H' in and around the anus. This is freely available in pharmacies.
- Piles may be caused in part due to constipation. It helps to eat plenty of fruit or food with a lot of fibre, like tapioca or green plantains.

When to seek medical help:

- very large hemorrhoids
- severe pain
- non-stop bleeding of hemorrhoids

ANAL FISSURE

sometimes when a person passes hard stools he may tear the anal opening. This produces terrible pain with a burning feeling and lasts for 2 to 3 hours after a bowel movement. The anus produces a watery discharge at the site of the tear and this causes itching. The tear can also get infected.

Treatment:

- Avoid getting constipated. Eat a lot of fibre foods like vegetables and fruits.
- Make a sitz bath (see piles) and sit in it
- After passing stools, take a little lignocaine jelly (see green pages) on your finger and apply it in and around the anus. Wash hands well before applying.
- If the condition does not improve, a small operation will help cure it.

SWELLING OF THE FEET AND OTHER PARTS OF THE BODY

Swelling of the feet may be caused by a number of different problems, some minor and others serious. But if the face or other parts of the body are also swollen, this is usually a sign of serious illness.

Women's feet sometimes swell during the last three months of pregnancy. This is usually not serious. It is caused by the weight of the child that presses on the veins coming from the legs in a way that limits the flow of blood. However, if the woman's hands and face also swell, she feels dizzy, has a headache, has problems seeing, or does not pass much urine, she may be suffering from poisoning or *toxemia* of pregnancy (see p. 295). Seek medical help fast.

Old people who spend a lot of time sitting or standing in one place often get swollen feet because of poor circulation. However, swollen feet in older persons may also be due to heart trouble (p. 371) or, less commonly, kidney disease (p. 278) and urinary tract infection following strep throat (p. 357)

Swelling of the feet in small children may result from anemia (p.147) or malnutrition (p.125). In severe cases the face and hands may also become swollen (see Kwashiorkor, p.133).

If there is any small infected cut or wound on the foot, the foot may swell due to cellulitis. There is fever and pain.

Treatment:

To reduce swelling, treat the sickness that causes it. Use little or no salt in food. Herbal teas that make people urinate a lot usually help (see home remedies, chapter 1) Also do the following:

WHEN YOUR FEET ARE SWOLLEN:

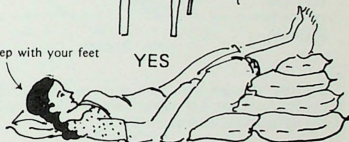
Do not spend time sitting with your feet down. This makes them swell more.



When you sit, put your feet up high. This way the swelling becomes less. Put your feet up several times a day.



Also sleep with your feet raised.



In case of cellulitis, Penicillin injections are necessary. for dosage. see p. 398.

HERNIA (RUPTURE)

A hernia is an opening or tear in the muscles covering the belly. This permits a loop of gut to push through and form a lump under the skin. Hernias usually come from lifting something heavy, or straining (as during childbirth). Some babies are born with a hernia (see p.364). In men, hernias are common in the groin. Swollen lymph nodes (p.101) may also cause lumps in the groin. However



and you can feel it with a finger, like this.



It gets bigger when you cough (or lift).

Lymph nodes are usually here



and do not get bigger when you cough.

How to prevent a hernia:

Lift heavy things like this



not like this.

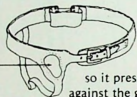


How to live with a hernia:

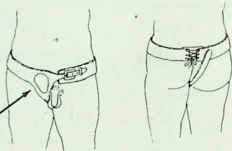
- Avoid lifting heavy objects.
- Make a truss to hold the hernia in.

PLAN FOR A SIMPLE TRUSS:

Put a little cushion here



so it presses against the groin.



CAUTION: If a hernia suddenly becomes large or painful, try to make it go back in by lying with the feet higher than the head and pressing gently on the bulge. If it will not go back, seek medical help.

If the hernia becomes very painful and causes vomiting, and the person cannot have a bowel movement, this can be very dangerous. Surgery may be necessary. Seek medical help fast. In the meantime, treat as for Appendicitis (p.107).

FITS (CONVULSIONS)

We say a person has a fit when he suddenly loses consciousness and makes strange, jerking movements (convulsions). Fits come from a problem in the brain. In small children common causes of fits are **high fever** and **severe dehydration**. In very ill persons, the cause may be **meningitis**, **cerebral malaria**, or **poisoning**. A person who often has fits may have epilepsy.

- Try to figure out the cause of a fit and treat it, if possible.
- If the child has a high fever, lower it at once with cool water (see p. 88).
- If the child is dehydrated, give an enema of Rehydration Drink **slowly**. Send for medical help. Give nothing by mouth during a fit, or if he is unconscious.
- If there are signs of meningitis (p. 225), begin treatment at once and seek medical help.
- If you suspect cerebral malaria (p. 227), inject chloroquine (p. 406).

EPILEPSY

Epilepsy causes fits in people who otherwise seem fairly healthy. Fits may come hours, days, weeks, or months apart. In some persons they cause loss of

consciousness and violent movements. The eyes often roll back. In mild types of epilepsy the person may suddenly 'blank out' a moment, make strange movements, or behave oddly. Epilepsy is more common in some families (inherited). Or it may come from brain damage at birth, high fever in infancy, or tapeworm cysts in the brain (p. 196).

Epilepsy is not an infection and cannot be 'caught'. It is often a life-long problem. However, infants sometimes get over it.

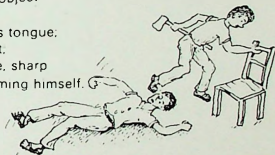
Medicines to prevent epileptic fits:

Note: These do not 'cure' epilepsy; they help prevent fits. Often the medicine must be taken for life.

- ♦ Phenobarbital often controls epilepsy. It costs little (see p. 422).
- ♦ Diphenylhydantoin may work when phenobarbital does not. Sometimes both medicines are needed together. Use the lowest possible dose that prevents fits (see p. 422).

When a person is having a fit:

- place a bit of wood, a key, or a similar object covered with a clean cloth between his teeth, so that he does not bite his tongue;
- do not try to restrain him during a fit.
- protect him from any danger, like fire, sharp stones, etc., to prevent him from harming himself.



- clear the people around him so that he gets enough fresh air to breathe;
- if he vomits or spits, turn his head to one side so that he does not choke; if needed, clear his mouth of the vomit;
- after he recovers from the fit, give him hot tea with plenty of sugar in it
- After the fit he may be dull and sleepy; let him sleep or rest before he starts his normal work;
- if fits last a long time, inject diazepam (Valium) or phenobarbital or paraldehyde (for dosage see p 423) If the fit still does not stop after 15 minutes, give a second dose.

The book *Where There Is No Doctor* is available at Rs 29/- plus postage. Multiple copies of reprints of various chapters are also available.

Please write to:

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