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# HOW TO EXAMINE A SICK PERSON

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To find out the needs of a sick person, first you must ask important questions and then examine him carefully. You should look for *signs* and *symptoms* that help you tell how ill the person is and what kind of sickness he may have.

Always examine the person where there is good light, preferably in the sunlight — **never** in a dark room.

There are certain basic things to ask and to look for in anyone who is sick. These include things the sick person feels or reports (symptoms), as well as things **you** notice on examining him (signs). These signs can be especially important in babies and persons unable to talk. In this book the word 'signs' is used for both symptoms and signs.

**When you examine a sick person, write down your findings and keep them for the health worker in case he is needed** (see p. 44).

## QUESTIONS

Start by asking the person about her sickness. Be sure to ask the following:

- What bothers you most right now?
- What makes you feel better or worse?
- How and when did your sickness begin?
- Have you had this same trouble before, or has anyone else in your family or neighborhood had it?



Continue with other questions in order to learn the details of the illness.

For example, if the sick person has a pain, ask her:

- Where does it hurt? (Ask her to point to the exact place with one finger.)
- Does it hurt all the time, or off and on?
- What is the pain like? (sharp? dull? burning?)
- Can you sleep with the pain?

If the sick person is a baby who still does not talk, look for signs of pain. Notice his movements and how he cries. (For example, a child with an earache sometimes rubs the side of his head or pulls at his ear.)

## GENERAL CONDITION OF HEALTH

Before touching the sick person, look at him carefully. Observe how ill or weak he looks, the way he moves, how he breathes, and how clear his mind seems. Look for signs of dehydration (see p. 151) and of shock (p. 77).

Notice whether the person looks well nourished or poorly nourished. Has he been losing weight? When a person has lost weight slowly over a long period of time, he may have a **chronic illness** (one that lasts a long time).

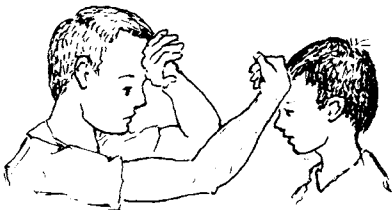
Also note the color of the skin and eyes. These sometimes change when a person is sick. (Dark skin can hide color changes. So look at parts of the body where the skin is pale, such as palms of the hands or soles of the feet, the fingernails, or the insides of the lips and eyelids.)

- Paleness, especially of the lips and inside the eyelids, is a sign of anemia (p. 124). Skin may also go lighter as a result of tuberculosis (p. 179), or kwashiorkor (p. 113).
- Darkening of the skin may be a sign of starvation (see p. 112).
- Bluish skin, especially blueness or darkness of the lips and fingernails, may mean serious problems with breathing (p. 79, 167, and 313) or with the heart (p. 325). Blue-gray color in an unconscious child may be a sign of cerebral malaria (p. 186).
- A gray-white coloring, with cool moist skin, often means a person is in shock (p. 77).
- Yellow color (jaundice) of the skin and eyes may result from disease in the liver (hepatitis, p. 172, cirrhosis, p. 328, or amebic abscess, p. 145) or gallbladder (p. 329). It may also occur in newborn babies (p. 274), and in children born with sickle cell disease (p. 321).

Look also at the skin when a light is shining across it from one side. This can show the earliest sign of measles rash on the face of a feverish child (p. 311).

## TEMPERATURE

It is often wise to take a sick person's temperature, even if he does not seem to have a fever. If the person is very sick, take the temperature at least 4 times each day and write it down.



If there is no thermometer, you can get an idea of the temperature by putting the back of one hand on the sick person's forehead and the other on your own or that of another healthy person. If the sick person has a fever, you should feel the difference.

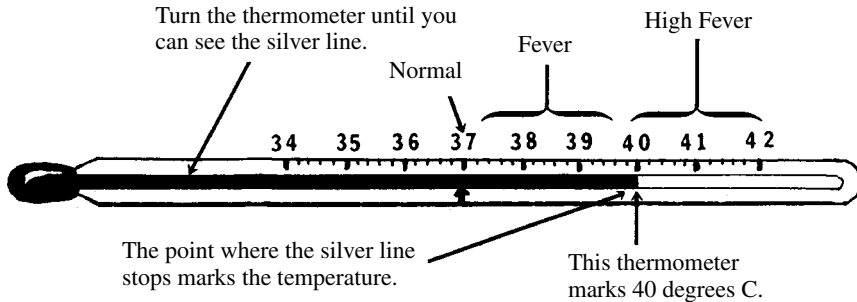
It is important to find out when and how the fever comes, how long it lasts, and how it goes away. This may help you identify the disease. Not every fever is malaria, though in some countries it is often treated as such. Remember other possible causes. For example:

- Common cold, and other virus infections (p. 163). The fever is usually mild.
- Typhoid causes a fever that goes on rising for 5 days. Malaria medicine does not help.
- Tuberculosis sometimes causes a mild fever in the afternoon. At night the person often sweats, and the fever goes down.

## How to Use a Thermometer

Every family should have a thermometer. Take the temperature of a sick person 4 times a day and always write it down.

**How to read the thermometer** (using one marked in degrees *centigrade*—°C):



**How to take the temperature:**

1. Clean the thermometer well with soap and water or alcohol. Shake it hard, with a snap of the wrist, until it reads less than 36 degrees.
2. Put the thermometer...

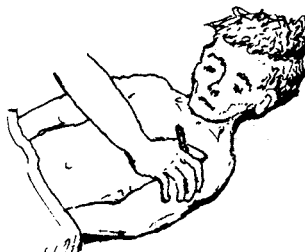


under the tongue  
(keeping the  
mouth shut)



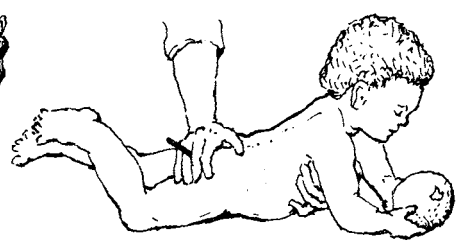
or

in the armpit if there  
is danger of biting  
the thermometer



or

carefully, in the anus  
of a small child (wet or  
grease it first)



3. Leave it there for 3 or 4 minutes.
4. Read it. (An armpit temperature will read a little lower than a mouth reading; in the anus it will read a little higher.)
5. Wash the thermometer well with soap and water.

**Note:** in newborn babies a temperature that is unusually high **or unusually low** (below 36) may mean a serious infection (see p. 275).

- ◆ To learn about other fever patterns, see p. 26 to 27.
- ◆ To learn what to do for a fever, see p. 75.

## BREATHING (RESPIRATION)

Pay special attention to the way the sick person breathes—the depth (deep or shallow), rate (how often breaths are taken), and difficulty. Notice if both sides of the chest move equally when she breathes.

If you have a watch or simple timer, count the number of breaths per minute (when the person is quiet). Between 12 and 20 breaths per minute is normal for adults and older children. Up to 30 breaths a minute is normal for children, and 40 for babies. People with a high fever or serious respiratory illnesses (like pneumonia) breathe more quickly than normal. More than 40 **shallow** breaths a minute in an adult, or 60 in a small child, usually means pneumonia.

Listen carefully to the sound of the breaths. For example:

- A whistle or wheeze and difficulty breathing out can mean asthma (see p. 167).
- A gurgling or snoring noise and difficult breathing in an unconscious person may mean the tongue, mucus (slime or pus), or something else is stuck in the throat and does not let enough air get through.

Look for ‘sucking in’ of the skin between ribs and at the angle of the neck (behind the collar bone) when the person breathes in. This means air has trouble getting through. Consider the possibility of something stuck in the throat (p. 79), pneumonia (p. 171), asthma (p. 167), or bronchitis (mild sucking in, see p. 170).

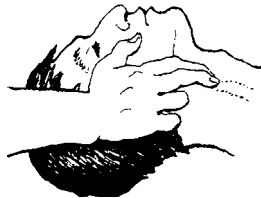
If the person has a cough, ask if it keeps her from sleeping. Find out if she coughs up mucus, how much, its color, and if there is blood in it.

## PULSE (HEARTBEAT)

To take the person’s pulse, put your fingers on the wrist as shown. (Do not use your thumb to feel for the pulse.)



If you cannot find the pulse in the wrist, feel for it in the neck beside the voicebox.



or put your ear directly or the chest and listen for the heartbeat (or use a stethoscope if you have one).



Pay attention to the strength, the rate, and the regularity of the pulse. If you have a watch or timer, count the pulses per minute.

### NORMAL PULSE FOR PEOPLE AT REST

adults . . . . . from 60 to 80 per minute

children . . . . . 80 to 100

babies . . . . . 100 to 140

The pulse gets much faster with exercise and when a person is nervous, frightened, or has a fever. As a general rule, the pulse increases 20 beats per minute for each degree (°C) rise in fever.

When a person is very ill, take the pulse often and write it down along with the temperature and rate of breathing.

It is important to notice changes in the pulse rate. For example:

- A weak, rapid pulse can mean a state of shock (see p. 77).
- A very rapid, very slow, or irregular pulse could mean heart trouble (see p. 325).
- A relatively slow pulse in a person with a high fever may be a sign of typhoid (see p. 188).

## EYES

Look at the color of the white part of the eyes. Is it normal, red (p. 219), or yellow? Also note any changes in the sick person's vision.

Have the person slowly move her eyes up and down and from side to side. Jerking or uneven movement may be a sign of brain damage.

Pay attention to the size of the *pupils* (the black 'window' in the center of the eye). If they are very large, it can mean a state of shock (see p. 77). If they are very large, or very small, it can mean poison or the effect of certain drugs.

Look at both eyes and note any difference between the two, especially in the size of the pupils:



A big difference in the size of the pupils is almost always a medical emergency.

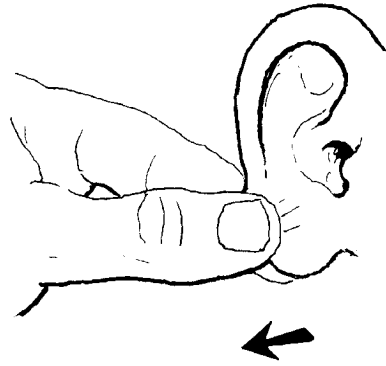
- If the eye with the larger pupil hurts so badly it causes vomiting, the person probably has GLAUCOMA (see p. 222).
- If the eye with the smaller pupil hurts a great deal, the person may have IRITIS, a very serious problem (see p. 221).
- Difference in the size of the pupils of an unconscious person or a person who has had a recent head injury may mean brain damage. It may also mean STROKE (see p. 327).

**Always compare the pupils of a person who is unconscious or has had a head injury.**

## EARS, THROAT, AND NOSE

**Ears:** Always check for signs of pain and infection in the ears-especially in a child with fever or a cold. A baby who cries a lot or pulls at his ear often has an ear infection (p. 309).

Pull the ear gently. If this increases pain, the infection is probably in the tube of the ear (ear canal). Also look for redness or pus inside the ear. A small flashlight or penlight will help. But never put a stick, wire, or other hard object inside the ear.



Find out if the person hears well, or if one side is more deaf than the other. Rub your thumb and fingers together near the person's ear to see if he can hear it. For deafness and ringing of the ears see page 327.

**Throat and Mouth:** With a torch (flashlight) or sunlight examine the mouth and throat. To do this hold down tongue with a spoon handle or have the person say 'ahhhhh...' Notice if the throat is red and if the tonsils (2 lumps at the back of the throat) are swollen or have spots with pus (see p. 309). Also examine the mouth for sores, inflamed gums, sore tongue, rotten or abscessed teeth and other problems. (Read Chapter 17.)

**Nose:** Is the nose runny or plugged? (Notice if and how a baby breathes through his nose.) Shine a light inside and look for mucus, pus, blood; also look for redness, swelling, or bad smell. Check for signs of sinus trouble or hayfever (p. 165).

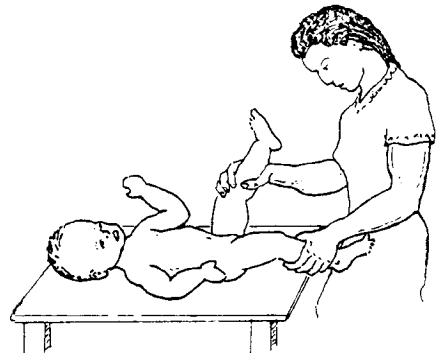
## SKIN

It is important to examine the sick person's whole body, no matter how mild the sickness may seem. Babies and children should be undressed completely. Look carefully for anything that is not normal, including:

- sores, wounds, or splinters
- rashes or welts
- spots, patches, or any unusual markings
- **inflammation** (sign of infection with redness, heat, pain and swelling)
- swelling or puffiness
- swollen **lymph nodes** (little lumps in the neck, the armpits, or the groin, see p. 88)
- abnormal lumps or masses
- unusual thinning or loss of hair, or loss of its color or shine (p. 112)
- loss of eyebrows (leprosy? p. 191)

Always examine little children between the buttocks, in the genital area, between the fingers and toes, behind the ears, and in the hair (for lice, scabies, ringworm, rashes, and sores).

For identification of different skin problems, see pages 196 -198.



## THE BELLY (ABDOMEN)

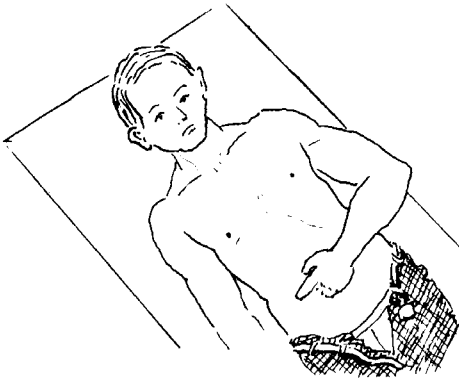
If a person has pain in the belly, try to find out exactly where it hurts.

Learn whether the pain is steady or whether it suddenly comes and goes, like cramps or *colic*.

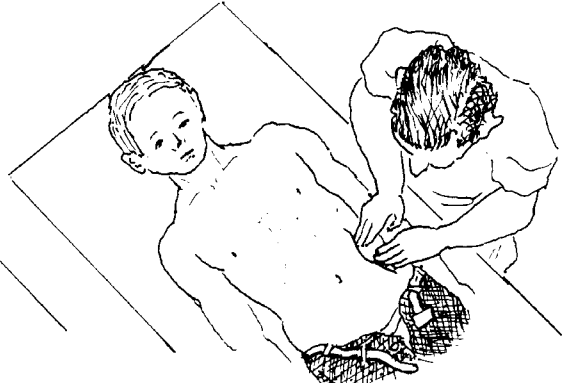
When you examine the belly, first look at it for any unusual swelling or lumps.

The location of the pain often gives a clue to the cause (see the following page).

First, ask the person to point with one finger where it hurts.



Then, beginning on the opposite side from the spot where he has pointed, press gently on different parts of the belly to see where it hurts most.

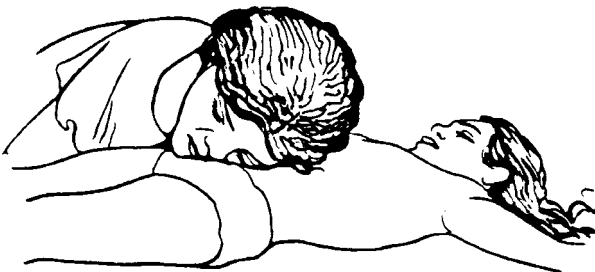


See if the belly is soft or hard and whether the person can relax his stomach muscles. A very hard belly could mean an acute abdomen—perhaps appendicitis or peritonitis (see p. 94).

If you suspect peritonitis or appendicitis, do the test for *rebound pain* described on page 95.

Feel for any abnormal lumps and hardened areas in the belly.

If the person has a constant pain in the stomach, with nausea, and has not been able to move her bowels, put an ear (or stethoscope) on the belly, like this:



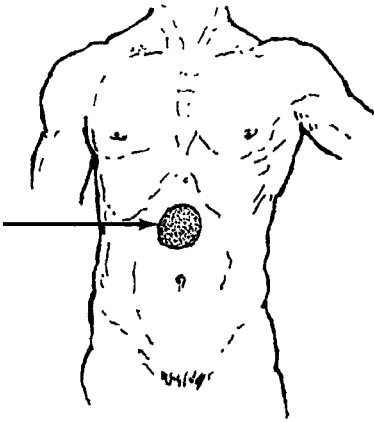
Listen for gurgles in the intestines. If you hear nothing after about 2 minutes, this is a danger sign. (See *Emergency Problems of the Gut*, p. 93.)

**A silent belly is like a silent dog. Beware!**

These pictures show the areas of the belly that usually hurt when a person has the following problems:

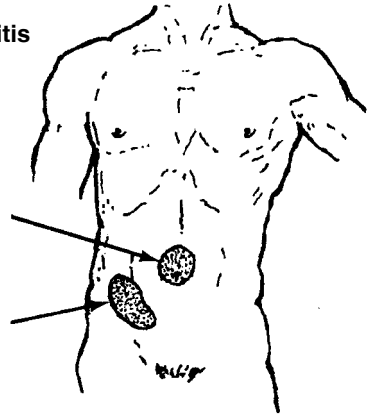
**Ulcer**  
(see p. 128)

pain in the  
'pit of the  
stomach'



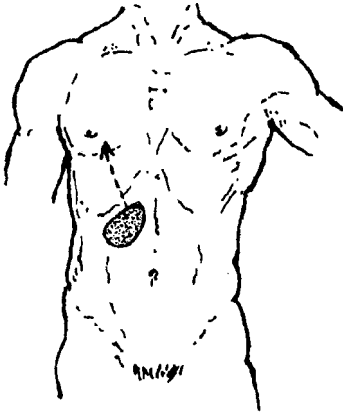
**Appendicitis**  
(see p. 94)

first it  
hurts here  
  
later it  
hurts here



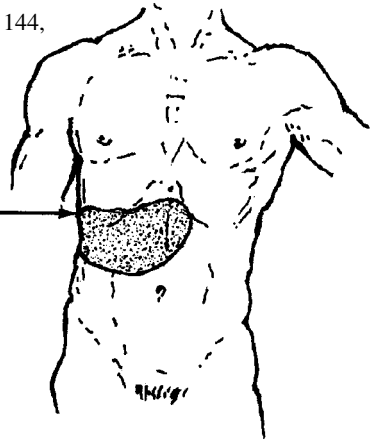
**Gallbladder**  
(see p. 329)

the pain  
often reaches  
to the back



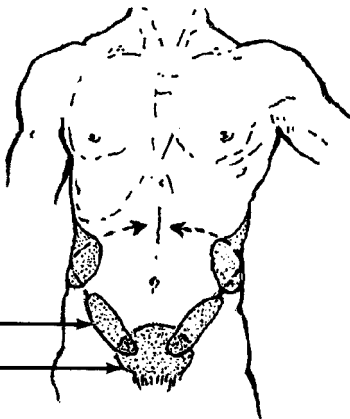
**Liver**  
(see p. 172, 144,  
and 328)

pain here,  
at times it  
spreads to  
the chest



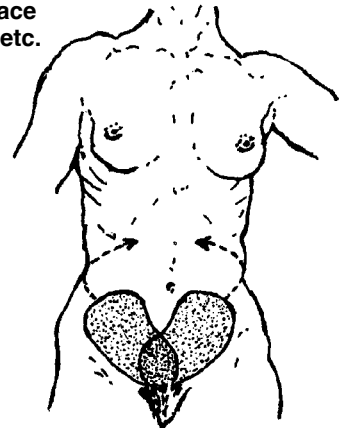
**Urinary system**  
(see p. 234)  
mid or low back  
pain, often goes  
around the waist  
to the lower part  
of the belly

urinary  
tubes  
  
bladder



**Inflammation or  
tumor of the ovaries,  
or out-of-place  
pregnancy, etc.**  
(see p. 280)

pain on one  
side or both,  
sometimes  
spreading to  
the back



*Note:* For different causes of back pain see p. 173.



## MUSCLES AND NERVES

If a person complains of numbness, weakness, or loss of control in part of his body, or you want to test it: notice the way he walks and moves. Have him stand, sit, or lie completely straight, and carefully compare both sides of his body.

**Face:** Have him smile, frown, open his eyes wide, and squeeze them shut. Notice any drooping or weakness on one side.

If the problem began more or less suddenly, think of a head injury (p. 91), stroke (p. 327), or Bell's palsy (p. 327).

If it came slowly, it may be a brain tumor. Get medical advice.

Also check for normal eye movement, size of pupils (p. 217), and how well he can see.

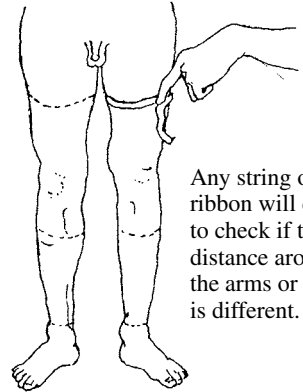
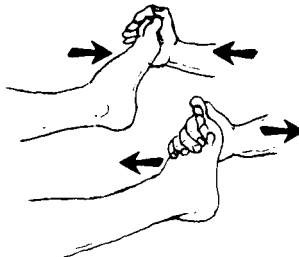


**Arms and legs:** Look for loss of muscle. Notice—or measure—difference in thickness of arms or legs.

Have him squeeze your fingers to compare strength in his hands

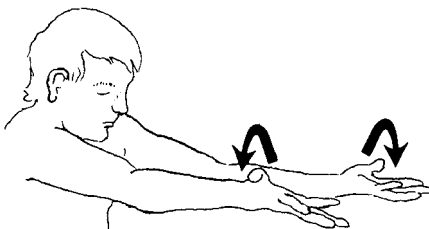


and push and pull with his feet against your hand.

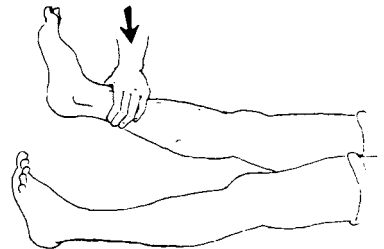


Any string or ribbon will do to check if the distance around the arms or legs is different.

Also have him hold his arms straight out and turn his hands up and down.



Have him lie down and lift one leg and then the other.



Note any weakness or trembling.

Watch how he moves and walks. If muscle loss or weakness affects the whole body, suspect malnutrition (p. 112) or a chronic (long-term) illness like tuberculosis.

If muscle loss and weakness is uneven or worse on one side, in children, think first of polio (p. 314); in adults, think of a back problem, a back or head injury, or stroke.

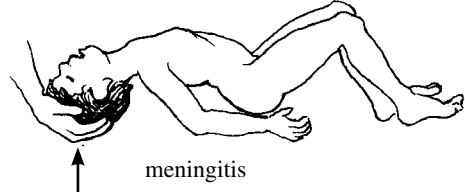
For more information on muscle testing and physical examination of disabled persons, see *Disabled Village Children*, Chapter 4.

### Check for stiffness or tightness of different muscles:

- If the jaw is stiff or will not open, suspect tetanus (p. 182) or a severe infection of the throat (p. 309) or of a tooth (p. 231). If the problem began after he yawned or was hit in the jaw, he may have a dislocated jaw.

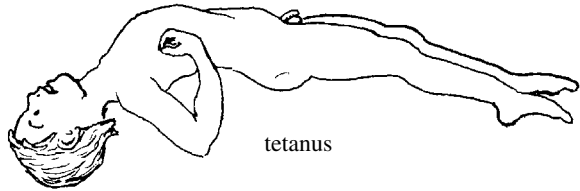


- If the neck or back is stiff and bent backwards, in a very sick child, suspect meningitis. If the head will not bend forward or cannot be put between the knees, meningitis is likely (p. 185).



- If a child **always** has some stiff muscles and makes strange or jerky movements, he may be *spastic* (p. 320).

- If strange or jerky movements come suddenly, with loss of consciousness, he may have fits (p. 178). If fits happen often, think of epilepsy. If they happen when he is ill, the cause may be high fever (p. 76) or dehydration (p. 151) or tetanus (p. 182) or meningitis (p. 185).



To test a person's reflexes when you suspect tetanus, see p. 183.

### To check for loss of feeling in the hands, feet, or other parts of the body:

Have the person cover his eyes. Lightly touch or prick the skin in different places. Ask him to say 'yes' when he feels it.

- Loss of feeling in or near spots or patches on the body is probably leprosy (p. 191).
- Loss of feeling in both hands or feet may be due to diabetes (p. 127) or leprosy.
- Loss of feeling on one side only could come from a back problem (p. 174) or injury.

