

Additional Information

When we revised Where There Is No Doctor in 1992, we added several topics. We continue to update these with each new edition. Some of these topics were specifically requested and others are problems that affect more and more people, such as HIV and AIDS, complications from unsafe abortions, pesticide poisoning, and drug addiction. We added the section on blood pressure because the book is used by many health workers who have equipment for measuring it.

HIV AND AIDS

HIV (Human Immunodeficiency Virus) is a very small germ called a virus. You cannot see it without a microscope. If left untreated, HIV damages the body's ability to fight disease, making illnesses like diarrhea, pneumonia, tuberculosis, cancers, and other health problems more serious and difficult to treat. With treatment, people with HIV can stay healthy for many years.

AIDS (Acquired Immune Deficiency Syndrome) is a stage of illness that can develop after a person has HIV but has not had treatment for some time. Many people with AIDS die from diseases they are no longer strong enough to fight because of HIV.

HIV spreads when an HIV-infected person's blood, semen (sperm), breast milk, or fluid from the vagina enters the body of a person without HIV. It can spread through:

Unprotected sex between someone who has HIV and someone who does not. This is the most common way HIV is spread.



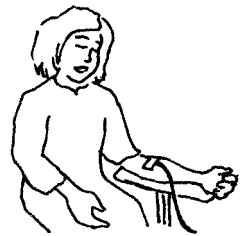
Using an unsterilized needle or syringe (or any instrument that pierces or cuts the skin).



Pregnancy, birth or breastfeeding, which can pass HIV to a baby if the mother is infected. See page 398 for information on preventing HIV from spreading this way.



Blood transfusions, if the blood has not been tested to be sure it is free from HIV.



HIV is not spread through everyday contact such as shaking hands, hugging, kissing, or living, playing, sleeping, or eating together. Also, it is not spread by food, water, insects, toilet seats, or communion cups. Caring for someone with HIV or AIDS is safe if you follow the advice on p. 403.

IMPORTANT: Someone who looks and feels completely healthy can have, and spread, HIV. It may take years after the virus enters the body for the first signs of illness to appear. The only way to know for sure whether or not you have HIV is to get an HIV test. These tests are available at many health centers at low or no cost.

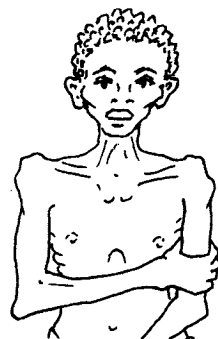
Signs of HIV:

Signs of HIV are often the signs of other common illnesses, but may be more severe and last longer. The only sure way to know if someone has HIV is get an HIV test. These 3 signs are common:

- Gradual weight loss.
- Diarrhea for more than 1 month.
- A fever for more than 1 month, sometimes with chills or soaking night sweats.

The person may also have one or more of these signs:

- A bad cough that lasts for more than 1 month.
- Yeast infection in the mouth (see “thrush,” p. 232).
- Swollen lymph nodes, anywhere in the body (p. 88).
- Rashes or painless dark patches on the skin.
- Warts or sores that keep growing and do not go away, especially around the genital area and buttocks.
- Feels tired all the time.
- People with HIV are more likely to get TB (p. 179) or shingles (p. 204).



AIDS was called “slim disease” in Africa because people lost so much weight.

Treatment to stay healthy with HIV

To live with HIV, the most important thing is to begin taking Antiretroviral Therapy, or ART—medicines that control HIV. Medicines must be taken every day. See pages 398 to 400. Some people also take cotrimoxazole to prevent infections (p. 357). When health problems arise, treat them quickly:

- ◆ For diarrhea, use Rehydration Drink (p. 152).
- ◆ For thrush or yeast infection in the mouth, use gentian violet (p. 372) or nystatin (p. 373).
- ◆ For warts, use trichloroacetic acid or podofilox (pages 375 and 404).
- ◆ Lower fevers by taking aspirin, acetaminophen, or ibuprofen (pages 380 to 381), drinking lots of fluids, and taking cool baths (pages 75 and 76).
- ◆ Treat cough (pages 168 to 169) and pneumonia (p. 171). If cough and fever last more than a week, seek help immediately for TB prevention and treatment (pages 179 to 180).
- ◆ For itching and rashes, use antihistamines (p. 387) and treat infections (p. 202).
- ◆ Treat infected wounds and sores (pages 88 and 89).
- ◆ For shingles, see page 204.

People with HIV need to eat more than those without HIV, and keep a healthy diet (see Chapter 11). Taking a multivitamin pill may help. Also:

- ◆ If water is not safe, boil or disinfect drinking water to avoid diarrhea and other problems.
- ◆ Avoid using alcohol, tobacco and other drugs.
- ◆ Get enough rest and sleep.
- ◆ Make time for activities and people who make you feel good.

People with HIV also need emotional support. Encourage them to seek support from people they trust. They can learn a lot from others who are living with HIV.

Preventing HIV:

- ◆ Have sex with only one partner who has sex only with you. Practice safer sex (p. 290). **Use a condom to reduce the risk of getting or giving HIV.**
- ◆ Get tested for HIV and if positive, start treatment.
- ◆ Treat sexually transmitted infections early—especially those that cause sores.
- ◆ Do not use syringes, needles or other tools that could be dirty. Only cut skin with sterilized tools. **Health workers should NEVER reuse a needle or syringe without sterilizing it first** (p. 74). Also make sure equipment for cutting, ear piercing, acupuncture, and scarring is sterilized.
- ◆ Do not accept a blood transfusion that has not been tested. Avoid transfusions except when absolutely necessary.
- ◆ Do not share razors.
- ◆ Wear latex gloves or plastic bags on your hands if you touch someone else's wound, blood, or body fluids.
- ◆ If you were raped or had unprotected sex with someone who has HIV, use post-exposure prophylaxis (PEP) to prevent getting HIV. See page 400.
- ◆ If you are at high risk for HIV, consider using pre-exposure prophylaxis (PrEP) to protect against infection. See page 400.
- ◆ **Treatment is prevention.** All people with HIV, especially pregnant women, can take ART to improve their health and stop HIV from spreading.

Setting up treatment and testing programs will also help prevent HIV from spreading in your community. In the long run, HIV can best be prevented by fighting for fairer social and economic conditions, so that people have stronger bodies from better nutrition, so that families do not need to separate to find work, and so that people need not sell their bodies for sex.

CARING FOR SOMEONE WITH HIV OR AIDS:

People with HIV or AIDS need comfort and kindness. You can help them decide how to tell others about their illness. They may also need help getting enough to eat or taking their medicines.

If they have a lot of fever, diarrhea, or pain, they will need extra help staying clean. This can usually be done without risk. To prevent spreading the virus, remember:

- ◆ Blood, open sores, bloody diarrhea, or bloody vomit can spread the virus. To prevent touching these, wear rubber latex or plastic gloves, or plastic bags on your hands. Wash your hands often.
- ◆ Soiled or bloody clothes, bedding, or towels should be handled with care. Wash them in hot soapy water, or add chlorine bleach. Keep separate from other household laundry.



Be kind to persons with HIV or AIDS.

At some point there may be little that can be done to treat a person with AIDS. You can help them prepare the legal and social arrangements necessary to care for children, family and property. Family and friends can give love and support to help the person prepare for death (p. 330).

SORES ON THE GENITALS

A single, painless sore on the genitals may be a sign of syphilis (p. 237). But several sores are likely to be a sign of other sexually transmitted infections: genital warts, genital herpes, or chancroid. HIV can easily pass through a sore on the genitals during sex. Always use a condom, and avoid having sex if the condom will not cover the sore.

Genital Warts (Venereal warts, HPV)

These warts are caused by a virus that is spread by sexual contact. They look like warts on other parts of the body (p. 210) but there are usually more of them.

Signs:

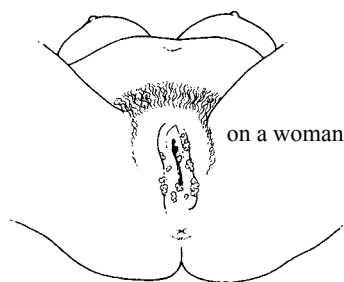
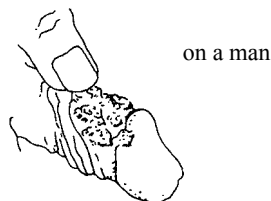
Small, firm, whitish or brownish growths that have a rough surface and sometimes itch. They can grow on the penis and scrotum, on the vulva and inside the vagina, and around the anus.

Treatment:

Treatment is given once a week, usually for several weeks. A health worker can show you how to treat at home or have you return for treatments. Effective medicines include trichloroacetic acid (TCA), bichloroacetic acid (BCA), or podofilox, page 375.

Prevention:

Wear a condom during sex (p. 287) if you or your partner has genital warts or avoid sex until they are gone. The vaccine that prevents human papilloma virus (HPV, p. 147) helps prevent genital warts.



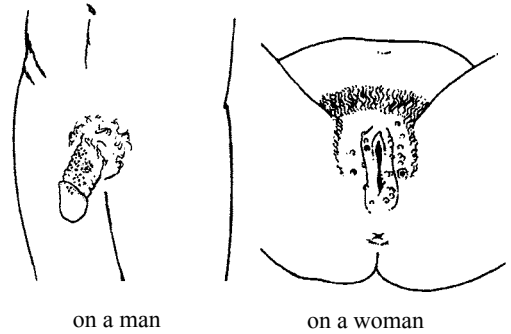
Genital Herpes

Genital herpes is an STI caused by a virus. It produces painful sores on the genitals that come and go for months or years. Herpes spreads when skin touches skin, as between sexual partners. It can spread even when you cannot see a sore, but is more likely to spread when there is a sore. When sores appear, it is called an outbreak.

Herpes virus can cause sores on the mouth (cold sores), also called oral herpes (p. 232). Kissing or sharing something from mouth to mouth can spread oral herpes. Oral herpes can become genital herpes if passed during oral sex.

Signs:

- One or more very small, painful blisters, like drops of water on the skin, appear on the genitals, anus, buttocks or thighs.
- The blisters burst and form painful, open sores (an outbreak).
- The sores dry up and become scabs.



The first time you get herpes sores, they can last 3 weeks or more. You can have fever, headache, body ache, chills, and swollen lymph nodes in the groin.

The virus stays in the body after all the signs disappear. New blisters can appear at any time, from weeks to years later. Usually the new sores appear in the same place, but are fewer, not as painful, and heal more quickly.

Treatment:

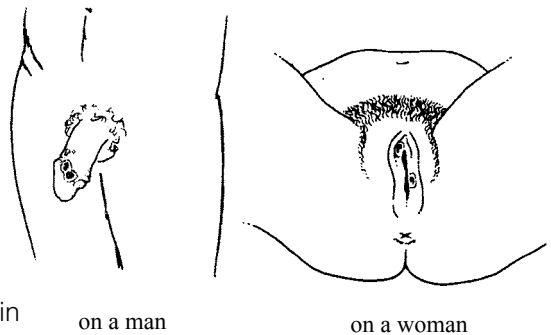
There is no cure for herpes, but treatment with acyclovir (p. 375) can make outbreaks shorter and less painful. Keep the area clean. Do not have sex until all the sores are healed—not even with a condom.

Always wash hands with soap and water after touching the sores. Be careful not to touch your eyes or your children's eyes. A herpes infection in the eyes is serious and can cause vision loss.

CAUTION: Having herpes sores in the vagina during birth can pass herpes and cause health problems in the baby. Let your health worker or midwife know if you have ever had genital herpes.

Chancroid**Signs:**

- soft, painful sores on the genitals or anus
- enlarged lymph nodes (buboes) may develop in the groin

**Treatment:**

- ◆ Give 1 g (1000 mg) of azithromycin by mouth 1 time only, or ciprofloxacin 500 mg by mouth 2 times a day for 3 days, or erythromycin 500 mg by mouth 4 times a day for 7 days. You can also give ceftriaxone, 250 mg by intramuscular injection, as a single dose. **Pregnant women and children should not take ciprofloxacin.**
- ◆ If there is chancroid in your region and you are not sure if a person has chancroid or syphilis, it is best to treat for both (p. 238).

CIRCUMCISION AND EXCISION (CUTTING AWAY SKIN FROM THE SEX PARTS)

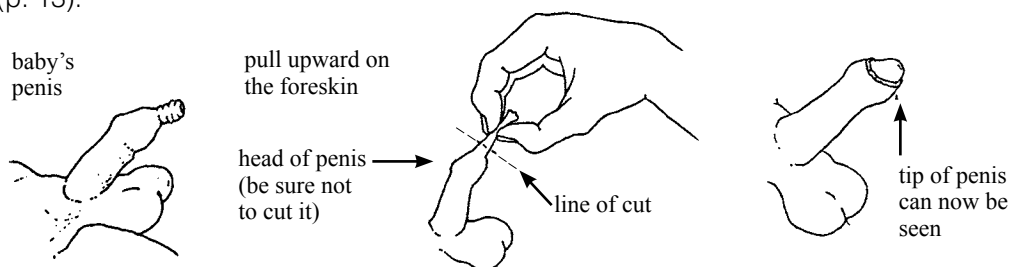
In many communities, boy children are circumcised—as are girls in some parts of the world—as a traditional practice or custom. Circumcision is not necessary for health, although male circumcision may provide some protection against HIV. For boys it is usually not dangerous. But for girls, this practice—sometimes called “excision,” “infibulation,” or “female genital cutting”—is very dangerous and should be stopped. For both boys and girls, unclean cutting tools risk spreading infection.

BOYS

A baby boy is born with a tube of skin (foreskin) covering the head of his penis. As long as urine comes out of the hole at the tip, there should be no problem. The foreskin will usually not pull back completely over the head of the penis until the boy is about 4 years old. This is not a reason for concern and circumcision is not necessary. Do not try to pull the foreskin back by force.

However, if the foreskin becomes red, swollen, and so tight that the baby cannot pass urine without pain, this is a problem. Take him to a health worker for a circumcision as soon as possible.

As a family ritual, simple circumcision of a healthy baby or young boy may be done by a midwife or person with experience. Using a new razor or disinfected knife, she cuts off a little of the foreskin beyond the head of the penis. After the cut, there is some pain and bleeding. Hold the penis firmly with a clean cloth, or gauze, for 5 minutes, until the bleeding stops. Some healers use the juice of a plant to help stop the bleeding (p. 13).



If the bleeding does not stop, wash away the clots of blood with clean water, and pinch the end of the foreskin between the fingers with a piece of clean cloth for as long as it takes the bleeding to stop. No medicine is needed.

GIRLS

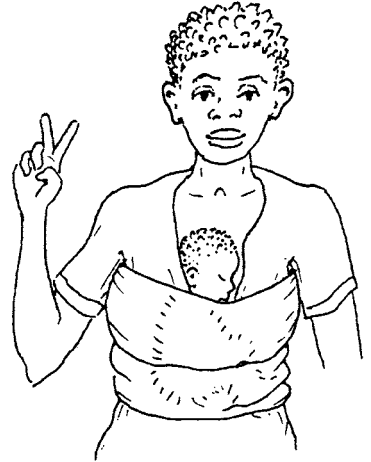
In circumcision of girls, or female genital cutting, the soft knob of flesh (clitoris) at the front end of the vagina is cut out. Sometimes the vaginal lips are also cut away. Genital cutting is a violation of human rights and it should not be done. Genital cutting damages the ability to feel sexual pleasure, creates psychological and physical problems including frequent urinary and vaginal infections, and problems during birth.

There is also danger of severe bleeding. The child can die in a few minutes. **Act quickly.** Wash away the clots to find the exact point where the blood is coming from and press on it firmly for 5 minutes. If bleeding continues, keep pressing the bleeding spot while you carry the child to a health worker or doctor for help. Watch for signs of shock (p. 77) and infection.

SPECIAL CARE FOR SMALL, EARLY, AND UNDERWEIGHT BABIES—"KANGAROO CARE"

A baby who is born very small (weighs less than 2 ½ kg or 5 lbs) will need special care. If possible, take the baby to a health post or hospital. In the hospital, these babies are often kept warm and protected in a special temperature-controlled box called an incubator. However, for a baby who is basically healthy, a mother can often provide similar warmth and protection by "kangaroo care" of the baby:

- ◆ Place the baby naked, with or without a diaper or nappy, upright inside your clothing against your skin, between your breasts. (It helps to wear a loose blouse, sweater, or wrap tied at the waist.)
- ◆ If you are breastfeeding, let the baby suck at your breast as often as he wants, but at least every 2 hours.
- ◆ Sleep propped up so that the baby stays upright.
- ◆ Wash the baby's face and bottom each day.
- ◆ **Make sure the baby stays warm at all times.** If it is cool, dress the baby with extra clothing, and cover his head.
- ◆ Alternate "kangaroo care" of the baby with other family members so you have time to rest, bathe, and eat.
- ◆ Take the baby to a health worker regularly. Be sure that he gets all his vaccinations (p. 147).
- ◆ Give the baby iron (p. 394) and vitamin supplements—especially vitamin D (p. 125).



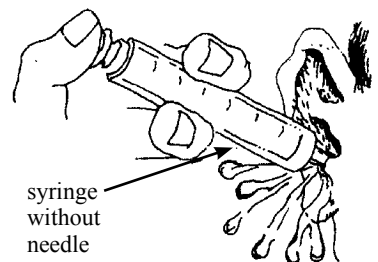
EAR WAX

A little wax in the ears is common. But some people have too much wax, or it dries into a hard lump close to the ear drum. This can block the ear canal so that the person cannot hear well.

Treatment:

To remove the wax, first soften it by putting several drops of warm vegetable oil into the person's ear. Then have her lie down on her side with the ear up for 15 minutes. Next, wash the ear out well by pouring several cups of warm (not hot) water into it.

If this does not work, remove the needle from a syringe and fill the syringe with warm water and squirt it into the ear canal. Repeat this several times, or until the wax comes out. Stop if the person starts to feel dizzy. If the wax still will not come out, seek medical advice.



LEISHMANIASIS

This disease is found in Africa, Asia, the Middle East, Latin America, and the U.S. The infection is carried from person to person by a small sand fly which infects a person when it bites.

Some forms of the disease cause damage inside the body (visceral leishmaniasis, kala-azar, dumdum fever). These are very difficult to recognize and the treatment is very complicated and expensive. If possible, seek medical help.

Other forms affect mainly the skin (cutaneous leishmaniasis, tropical sore, Delhi boil, espundia, forest yaws, uta, chiclero ulcer). These are easier to treat.

Signs of leishmaniasis of the skin:

- 2 to 8 weeks after being bitten, swelling appears where the fly bit.
- The swelling becomes an open sore, usually with pus.
- Sores can heal by themselves, but may take several weeks to 2 years.
- Sores become infected (with bacteria) very easily.

Treatment:

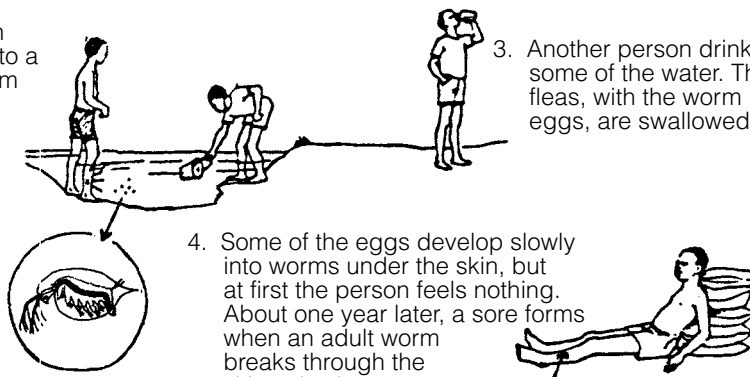
- ◆ Clean the sore with cool, boiled water.
- ◆ Apply a hot, moist cloth to the sore (not so hot that it burns the skin) for 10 to 15 minutes.
- ◆ Do this 2 times a day for 10 days. This heat treatment often brings a complete cure.
- ◆ If the sore looks infected (red and painful), also give antibiotics (p. 351).

GUINEA WORM

Guinea worm is a long, thin worm that lives under the skin and makes a painful sore on the ankle, leg, or elsewhere on the body. The worm, which looks like a white thread, can be over a meter long. Guinea worm was a health problem in some countries of Africa but now has almost disappeared.

Guinea worm is spread from person to person, like this:

1. Infected person with open sore wades into a water hole. The worm pokes its head out of the sore and lays thousands of eggs into the water.
2. Tiny water-fleas pick up the worm eggs.
3. Another person drinks some of the water. The fleas, with the worm eggs, are swallowed.
4. Some of the eggs develop slowly into worms under the skin, but at first the person feels nothing. About one year later, a sore forms when an adult worm breaks through the skin to lay its eggs.

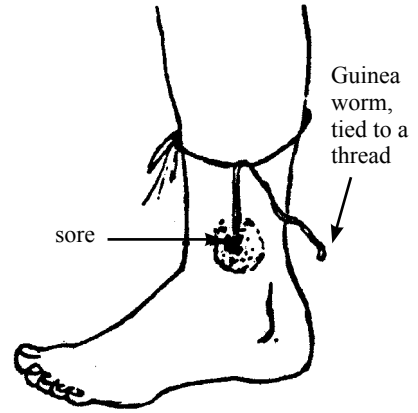


Signs:

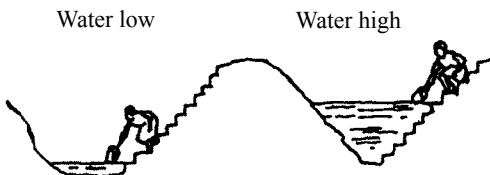
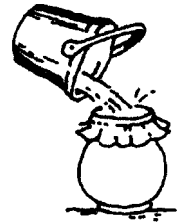
- A painful swelling develops on the ankle, leg, testicles or elsewhere on the body.
- After a week a blister forms, which soon bursts open forming a sore. This often happens when standing in water, or bathing. The end of a white thread-like Guinea worm can be seen poking out of the sore.
- If the sore gets dirty and infected, the pain and swelling spread, and walking becomes impossible. Sometimes tetanus occurs (p. 182).

Treatment:

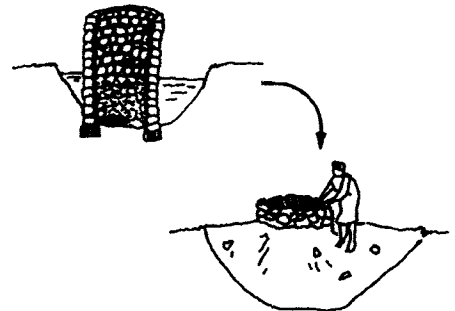
- ◆ Keep the sore clean. Soak the sore in cold water until the worm's head pokes out.
- ◆ Attach a thread to the worm, or roll it round a thin stick, and pull gently, a little more each day. This may take a week or more. The worm can be more than a meter long! Try not to break it, because this can cause severe infection.
- ◆ Give metronidazole or thiabendazole to help reduce discomfort and make it easier to slowly pull out the worm. (The medicines do not kill the worms. For dosages and precautions, pages 370 and 376.)
- ◆ Give anti-tetanus vaccination (p. 147).
- ◆ If sores become infected (spreading pain, redness, swelling, and fever), give penicillin or dicloxacillin or a similar antibiotic (p. 351).

**Prevention:**

- ◆ Use tap water for drinking, if available. If a water hole is the only supply, then do not drink from it directly. Pour the water into a special drinking water pot, through a clean cloth tied over the top. The cloth will filter out the infected water-fleas.
- ◆ If the community can build stone steps into the water hole, people can scoop water from the last dry step without getting wet.
- ◆ Or turn the water hole into a well, so that people can draw water with a rope and bucket.



ALWAYS USE THE LAST DRY STEP.
NEVER STEP INTO THE WATER.



If nobody wades or bathes in water used for drinking, the infection cannot be passed on, and will eventually disappear from the area.

EMERGENCIES CAUSED BY COLD

Loss of Body Heat (Hypothermia)

In cold climates, or cold, wet or windy weather, persons who are not wearing enough warm clothes can lose the heat from their bodies.

This is very dangerous. Often the person does not realize what is happening and can become so confused that she will not ask for help and may die.



Signs:

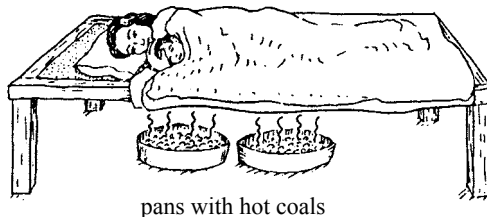
- Uncontrolled shivering
- Slow or unclear speech
- Stumbles when walking
- Cannot think clearly
- Feels very tired

Treatment:

- ◆ Quickly get the person to a dry place protected from the wind.
- ◆ Take off wet clothes and cover person with dry clothing and dry blankets.
- ◆ Make sure her head, feet, and hands are covered.
- ◆ Heat stones in a fire, wrap them in cloth, and put them next to her back and belly.

WARNING: Do not warm up the person too fast as this could cause heart problems and death.

- ◆ Do all you can to keep the person warm. If it is a child, wrap him inside your clothing against your skin (see “kangaroo care,” p. 407). Or sleep with him in your arms. If possible, have someone else lie on the other side. Or put pans of hot coals, or a few small oil lamps under the cot. (But be careful he does not get burned, or too warm.)



- ◆ Give sweet things to eat and drink like sugar, candy, honey, ripe fruit or juice. If you do not have sweets, give starchy foods like rice, bread, plantain, or potatoes.
- ◆ If the person stops breathing, give mouth-to-mouth breathing (p. 80). Keep giving mouth-to-mouth breathing for at least 1 hour.

If the person stops shivering but still has any of the above signs, or if he is unconscious, his condition is very serious. Keep trying to warm him, but if he does not wake up, **get medical help FAST.**

Dangerously Low Body Temperature in Babies and Sick Persons

Sometimes, especially in cool weather, a baby, sick child, or person who is very old, ill, malnourished, or weak may lose so much body heat that their temperature drops below normal. The signs mentioned on the previous page may develop, and the person may die. Try to raise the body temperature by keeping the person warm as described on p. 410.

Frozen Skin (Frostbite)

In freezing weather, if a person is not dressed warmly enough, her hands, feet, ears, and sometimes face may begin to freeze. **Frostbite is very dangerous.** If completely frozen, the skin will die and later turn black (p. 213). The part may have to be cut off (amputated).

Signs of frostbite:

- At first, numbness and often sharp pain in one part of the body.
- Then all feeling goes away as the part gets more frozen.
- The part gets pale in color and feels hard when touched.

Treatment of mild frostbite:

If the skin still feels soft when touched, the person probably has mild frostbite. Wrap the part with dry cloth and warm it against another part of the person's own body or someone else's. Try to keep moving and get out of the cold as fast as possible.



Warm hands and feet against body.

Try to cover ears and face.



Treatment of severe frostbite: CAUTION: Do not start treatment for severe frostbite until you are in a place where the person's whole body can be kept warm during and after treatment. It is better to let a hand or foot stay frozen for several hours than to let it get warm and then freeze again. When you get to a warm, protected place:

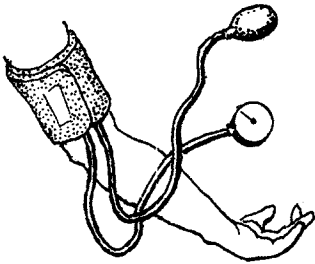
- ◆ Fill a large container with warm water (**not hot**) that feels comfortable when you hold your hand in it.
- ◆ Soak the person's frozen part in the water until it gets warm.
- ◆ If the water cools, add more warm water. But take out the person's hand or foot while you do this. Remember, she cannot feel how hot the water is and you can easily burn her.
- ◆ As it gets warm, the frozen part will become very painful. Give aspirin or codeine (p. 380 and 385).
- ◆ When it is no longer frozen, the person must stay warm and rest.
- ◆ Be very gentle with the part that was frozen. Treat as you would a severe wound or burn (p. 96). Seek medical help. Sometimes dead parts of the body must be removed through surgery.

HOW TO MEASURE BLOOD PRESSURE

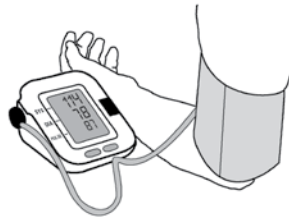
Blood pressure measurement is an important skill for health workers and midwives. It is an especially useful tool in examining:

- Pregnant women (pages 249, 251, and 253) before and during birth.
- A person who may be losing a lot of blood from any part of the body, inside or out (p. 77).
- A person who might be in shock (p. 77), including allergic shock (p. 70).
- People over 40.
- Anyone with signs of heart trouble (p. 325), stroke (p. 327), difficulty breathing, frequent headaches, swelling, diabetes (p. 127), chronic urinary problems (p. 234), or swollen or painful veins (p. 175).
- Persons known to have high blood pressure (p. 125).
- Women taking (or planning to take) birth control pills (p. 288).

There are 3 kinds of instruments for measuring blood pressure:



A manual blood pressure cuff with a gauge,



an electric blood pressure cuff with a display,



and the older mercury sphygmomanometer, which shows the level of mercury.

To measure blood pressure:

- **Make sure the person is relaxed.** Recent exercise, caffeine, anger, or nervousness can cause a falsely high reading. Explain what you are going to do, so the person is not surprised or frightened. Have them sit at rest for 5 minutes before you measure.
- **Fasten the pressure cuff** around the person's bare upper arm about 2 finger widths above the elbow crease.
- **Close the valve** on the rubber bulb by turning the screw clockwise.
- **Feel for a pulse just below the cuff** on the inside of the elbow, and put the stethoscope on the pulse.
- **Pump the pressure up** to more than 200 millimeters of mercury.
- **Listen carefully for the pulse** as you slowly let air out of the cuff. As the needle of the gauge (or the level of mercury) slowly drops, **take two readings:**

1. **Take the first reading the moment you begin to hear the soft thumping of the pulse.** This happens when the pressure in the cuff drops to the highest pressure in the artery (systolic or “top” pressure). This top pressure is reached each time the heart contracts and forces the blood through the arteries. In a healthy person, this top pressure reading is usually around 110 to 120 mm.
2. Continue to slowly release the pressure while listening carefully. **Take the second reading when the sound of the pulse begins to fade or disappear.** This happens when the pressure in the cuff drops to the lowest pressure in the artery (diastolic or “bottom” pressure). This bottom pressure occurs when the heart relaxes between pulses. It is usually around 60 to 80 mm.

When you record a person’s blood pressure, always write both the top and bottom pressure readings. We say that an adult’s blood pressure (BP) is “120 over 80,” and write it like this:

BP $\frac{120}{80}$ or BP 120/80

120 is the top (systolic) reading.

80 is the bottom (diastolic) reading.

For health workers, it may be better to speak of the “top” and “bottom” numbers (TN and BN), rather than use big, strange words like systolic and diastolic.

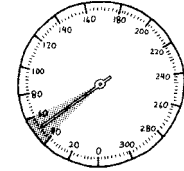
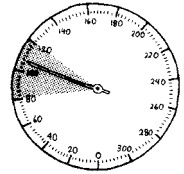
If a person’s blood pressure is 160/110, he has seriously **high blood pressure** and should get treatment. A bottom number of over 100 or a top number over 160 usually means the blood pressure is high enough to require attention (diet and perhaps medicine).

Typical blood pressure for an adult is usually around 120/80, but anything from 100/60 to 140/90 can be considered healthy.

If a person regularly has **low blood pressure**, there is no need to worry. In fact, blood pressure that is a little low, 90/60 to 110/70, means a person is likely to live long and is less likely to suffer from heart trouble or stroke.

A sudden drop in blood pressure is a danger sign, especially if it falls below 60/40. Health workers should watch for any sudden drop in the blood pressure of persons who are losing blood or at risk of shock (p. 77).

For more information about blood pressure measurement, see *A Book for Midwives*, Chapter 8.



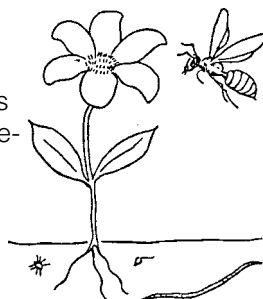
POISONING FROM PESTICIDES

Pesticides are chemical poisons used to kill certain plants (herbicides), fungus (fungicides), insects (insecticides) or other animals (for example, rat poison). In recent years, the increasing misuse of pesticides has become a big problem everywhere. These dangerous chemicals can cause severe health problems. They can also damage the balance of nature, which in time can lead to smaller harvests.



Many pesticides are extremely dangerous. Villagers often use them without knowing their risks, or how to protect themselves while using them. As a result, many persons become **very ill, blind, sterile, paralyzed**, or their children may be **born with disabilities**. Also, working with these chemicals, or eating foods sprayed with them, sometimes causes **cancer**.

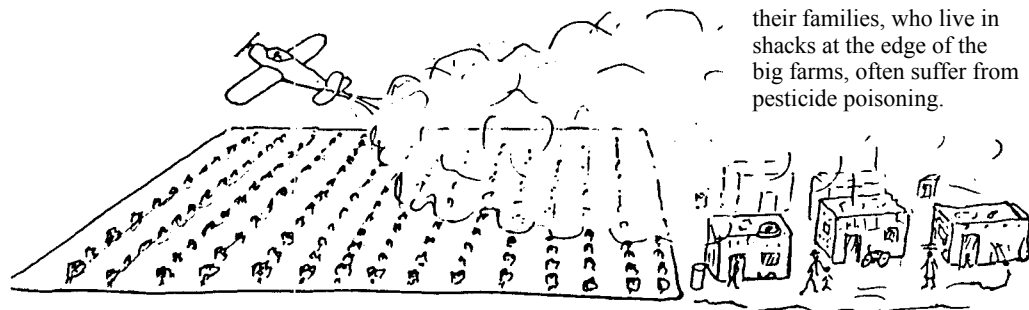
Chemicals used to kill insects and weeds at first allow farmers who can afford them to produce more crops. But today, pesticide-treated crops often produce smaller harvests than crops produced without pesticides. This happens because pesticides also kill the birds and insects that provide a natural control of pests and are beneficial to the soil. Also, as the insects and weeds become resistant, greater quantities and more poisonous kinds of pesticides are needed. So, once farmers begin to use these chemical poisons, they become dependent on them.



Pesticides also kill the beneficial animals—such as bees and earthworms.

As farmers' dependency on chemical pesticides and fertilizers goes up, so does the cost. When the smaller, poorer farmers can no longer afford them, they are forced off the land. As the land becomes owned by a few giant farmers, and more and more people become landless, the number of malnourished and hungry people increases.

The risk of pesticide poisoning is high for these landless, poorly paid farm workers and their families. Many live in open shacks at the edge of fields that are sprayed with pesticides. The poison can easily get into their homes or water supply. This is especially dangerous for small children, who can be seriously harmed by even small amounts of these poisons. Farmers who use backpack sprayers, which often leak, are also at high risk. See *A Community Guide to Environmental Health*, Chapter 14, for more information.



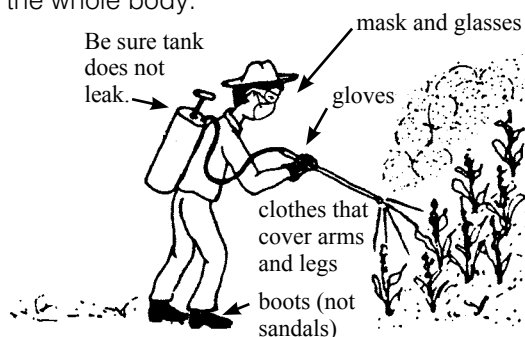
Landless farm workers and their families, who live in shacks at the edge of the big farms, often suffer from pesticide poisoning.

Laws are needed to prohibit the most dangerous pesticides and to provide clear warnings. Unfortunately, after governments in industrialized countries limited the use of many pesticides, chemical manufacturers began to sell their dangerous products to developing countries, where laws are less strict.

Some of the most dangerous pesticides are aldrin, dieldrin, endrin, chlordane, heptachlor, DDT, DBCP, HCH, BHC, ethylene dibromide (EDB), paraquat, parathion, agent orange (2-4D with 2-4-5T), camphechlor (toxaphene), pentachlorophenyl (PCP), and chlordimeform. It is very important to read carefully the labels of pesticide containers. Be sure to read the small print, because the pesticide may not be part of the brand name.

WARNING: If you use any pesticide, take the following precautions:

- ◆ Mix chemicals and load spray equipment carefully.
- ◆ Stand so that wind blows spray away from you.
- ◆ Wear protective clothing, covering the whole body.
- ◆ Wash hands before eating.
- ◆ Wash the whole body and change clothes immediately after spraying.
- ◆ Wash clothes after spraying.
- ◆ Do not let wash water get into drinking supply.
- ◆ Be sure containers with pesticides are clearly marked, and kept out of children's reach. Do not use pesticide containers for food or water.



CAUTION: Make sure that children, and women who are pregnant or breastfeeding, stay away from all pesticides.

Treatment for pesticide poisoning:

- ◆ If the person is not breathing, quickly do mouth-to-mouth breathing (p. 80).
- ◆ Follow instructions on p. 103 to make the person vomit, and to give powdered charcoal (or egg whites) to soak up the poison inside the gut. But do not make the person vomit if you do not know what kind of pesticide he was using, or if he swallowed a pesticide with gasoline, kerosene, xylene, or other petroleum-based liquids.
- ◆ Remove any pesticide-soaked clothing, and wash skin exposed to pesticide.

The above steps can help to treat the immediate problem of pesticide poisoning. But solving the underlying problem will require:

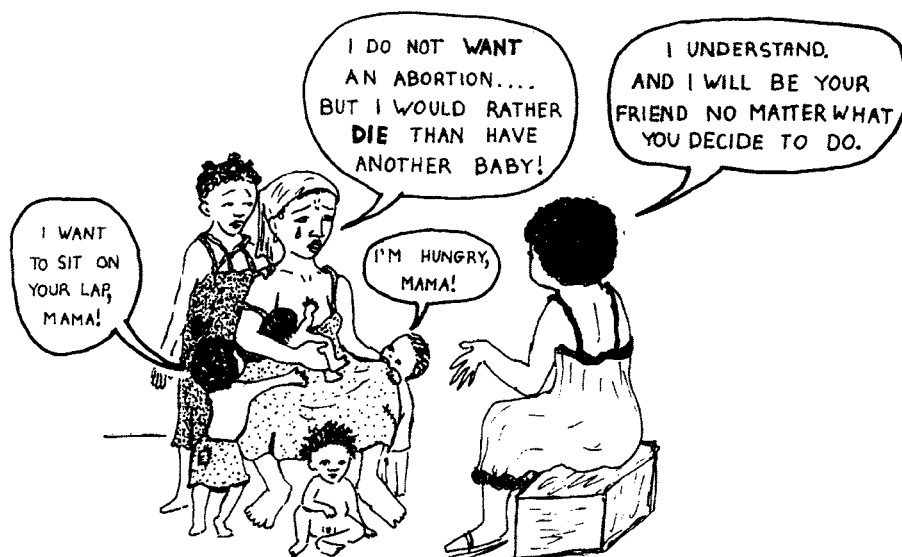
1. Education for avoiding the most dangerous pesticides, and laws to restrict their use.
2. Farm workers organizing to insist their rights are protected, and safety hazards are corrected.
3. Fairer land distribution.



PREVENTING DEATHS FROM UNSAFE ABORTION

An abortion is when someone on purpose ends a pregnancy before birth. Abortion is very safe in places where it is legal, and problems are very rare. Where abortion is illegal, people still get abortions but often have problems from:

- using unsafe medicines, herbs, and practices to try to end a pregnancy. These can cause injury, death, or problems with the pregnancy if the method does not successfully cause an abortion.
- infections because locations or instruments are not clean or sterile.
- waiting too long to seek medical help for problems because they fear arrest or legal consequences.



Methods of Safe Abortion

Medical abortion (abortion with pills) uses one or two medicines (misoprostol by itself or with mifepristone) to cause contractions that expel the pregnancy from the uterus. This is safe to do at home up to 13 weeks. After that, it is safe through 24 weeks in a health center or accompanied by an experienced abortion support worker. Medical abortion is very safe and effective. Since nothing is put inside the uterus, there is very little chance of infection.

Suction abortion (MVA, EVA, vacuum aspiration) uses either a machine or a large syringe to remove the pregnancy from the uterus by suction. This is a safe method during the first 16 weeks of pregnancy. It is done in a clinic.

Dilation and evacuation abortion (D&E) uses a combination of medicines, suction and other instruments to remove the pregnancy from the uterus. This method is safe to use starting at 14 weeks of pregnancy. It is done in a clinic.



Danger Signs after Abortion

Get medical help right away if you:

- soak more than 2 pads or cloths in 1 hour for 2 hours in a row, or have bleeding with dizziness
- pass blood clots larger than your fist
- have severe belly pain that gets worse even with pain medicine
- have bad-smelling discharge from the vagina
- have fever
 - for medical abortion, fever over 38.5°C (101°F) that starts a day after the last misoprostol dose and lasts 4 hours or more
 - for abortion by suction or D&E, fever over 38°C (100°F) or chills at any time after the abortion

Some people with danger signs after an unsafe abortion do not go for medical help because they are afraid they will have legal problems. They may wait until they are very sick to get help. This delay can be fatal. Go for help right away and meanwhile do the following:

- ◆ Treat for shock (p. 77)
- ◆ Give antibiotics. Use the medicines for childbirth fever on p. 276.

Prevent Illness and Death from Unsafe Abortion

Where abortion is legal and accessible, there are almost no deaths or problems from abortion. Work to make safe abortion available in your country and to remove the stigma that people feel when accessing abortion.

Work to make birth control methods more available and affordable in your community. Educate everyone about how these methods can reduce the number of unplanned pregnancies, and help to reduce the need for abortion.

For more information about how to care for someone after an abortion, see *A Book for Midwives*. For ideas about how challenge stigma about abortion and how to make birth control methods available, see *Health Actions for Women*.

DRUG MISUSE AND ADDICTION

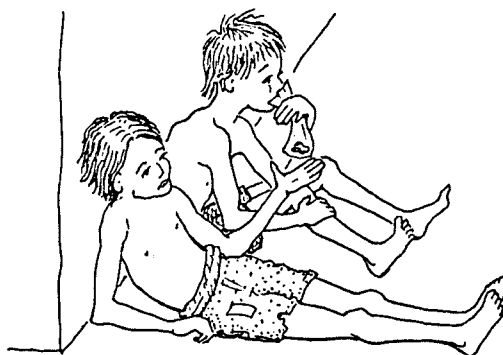
The use of **habit-forming, or addictive, drugs** is a growing problem in the world today.

Although **alcohol** and **tobacco** are legal in most countries, both are habit-forming. They contribute to the poor health and death of many millions of people each year. Alcohol misuse causes enormous health, family, and social problems throughout the world. Cigarette smoking has for many years been a major cause of death in rich countries, and is now becoming an even bigger cause of death in poor countries. As more people in the wealthier countries stop smoking, tobacco companies have turned to lower-resource countries as their new market.

Health problems related to use of alcohol and tobacco are discussed on pages 148 to 149.

In addition to alcohol and tobacco, many people in different parts of the world are using drugs that may be illegal. These vary from place to place, and include **marijuana** (weed, pot, grass, *sinsemilla*, *mota*, hashish, ganja), **opium** (heroin, morphine, smack), **methamphetamine** (speed) and **cocaine** (crack, snow, rock).

An increasing problem among poor children in cities is the **sniffing of chemicals**, especially **glue**, but sometimes paint thinner, shoe polish, gasoline, and cleaning fluid. Also, some people misuse medicines—especially certain strong painkillers, stimulants, and appetite-control drugs.



Drugs can be swallowed, injected, smoked, chewed, or sniffed. Different drugs create different effects on the body and mind. Cocaine or kolanuts may make a person feel energetic and happy, but some time later he will feel tired, irritable, and depressed. Some drugs, like alcohol, opium, morphine, and heroin, may at first make a person feel calm and relaxed, but later they may cause him to lose his inhibitions, self-control, or even consciousness. Other drugs, such as marijuana, PCP, LSD, and peyote make a person imagine things that do not exist, or create dream-like fantasies.

WARNING: Use of cigarettes, alcohol, or other drugs by pregnant women harms their developing babies. Also, injecting drugs using the same needle for more than one person spreads dangerous diseases. See hepatitis (p. 172) and HIV and AIDS (p. 401).

People may start taking drugs to escape the hardships, forget the hunger, or calm the pain in their daily lives. Alcohol and drugs are easily misused, and some may cause addiction. Misuse happens when people lose control over when and how much they use, when they cannot control what they do while using, or when using causes health problems. Addiction is when a person is unable to control their alcohol or drug use, even though it is causing harm in their life.

Some drugs such as cocaine and heroin are very addictive; a person may try the drug only once and feel that he needs to keep taking it. Other drugs become addictive after longer periods of time. Addiction is a dangerous trap that can lead to health problems or even death. Overcoming alcohol or drug use takes time and effort, but it is possible with help and support.

When a person quits using, he will go through a period of withdrawal. He may feel nervous or irritable, have trouble sleeping and eating, feel slightly shaky, sweat, and have body aches, nausea, vomiting, and stomach pain.

With some drugs, such as heroin or cocaine, withdrawal may be so severe that the person can become violent and injure himself or others. He or she may need the help of a special clinic. For other kinds of drugs, such as alcohol, marijuana, tobacco, and chemical sniffing, medical care is usually not necessary, but the care and support of family and friends is very important.

Here are a few suggestions to reduce the harms of drug misuse and addiction in your community:

- ◆ Be as helpful and supportive as possible to someone trying to overcome drug use. But also be kind to yourself. You cannot always help people control their addiction. They must want to change.
- ◆ Members of the community who have been addicted to drugs and recovered can form a support group to help others trying to quit. Alcoholics Anonymous is one such organization (p. 431). This group of recovering alcoholics has successfully helped people all over the world to deal with problems of addiction.
- ◆ Families, schools, and health workers can tell children about the dangers of cigarettes, alcohol, and drugs. Help children learn that there are other, healthier ways to feel good, to act “grown up,” or to rebel.
- ◆ Work to address some of the problems in your community that may lead people to use drugs: hunger, exploitative working conditions, and lack of opportunities to lead a better life. Help disadvantaged persons organize and stand up for their rights.

Drug misuse can cause:



**Actions that are *supportive* and *kind* work better
than those that are *punishing* and *cruel*.**