

Chapter 17

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HIV



Millions of people are infected with the HIV virus. More and more of them are women and girls. In 2021, more than half of all people living with HIV in the world were women and girls.

There is no cure for HIV which, if not treated, can cause AIDS. But treatment now means people with HIV can live long lives and stay in good health. To provide care for those who need it and to protect ourselves and each other from HIV and AIDS, we must be willing to talk about HIV with our families, friends and community.

ANYONE MAY FACE HIV

Even women who know they are at risk may be unable to protect themselves.

Many people think they have no risk of getting HIV. They may think that only homosexuals, people who have many sex partners (like sex workers), or people who use drugs have any chance of becoming infected with HIV. This is not true. In some communities, married women get HIV more than anyone else.

People in communities that face HIV together can discuss HIV more actively and honestly. This makes it easier for those with HIV to get care and support and also helps prevent HIV from spreading.

► People can live well with HIV.



medicines for
HIV and AIDS

► Women who know they are at risk may be unable to protect themselves (see page 191).

What Are HIV and AIDS?

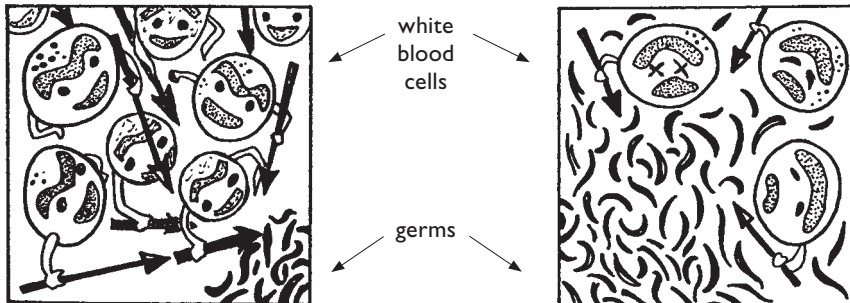
► You cannot tell from looking at a person if they have HIV or not.

HIV (Human Immunodeficiency Virus) is a very small germ, called a virus, that you cannot see. **AIDS** (Acquired Immune Deficiency Syndrome) is a condition that develops later, if someone who has been infected with HIV does not get treatment or struggles to stay healthy even with treatment.

HIV

When a person becomes infected with HIV, the virus attacks their immune system, the part of the body that fights off infection. HIV slowly kills *cells* of the immune system until the body can no longer defend itself against other infections. Most people who are infected do not get sick from their HIV for 5 to 10 years. But eventually the immune system cannot fight off common infections. Because HIV can take years to make someone sick, many people with HIV feel healthy and do not know they have it.

IMPORTANT *HIV can spread to others as soon as you are infected, even if you look and feel healthy. The only way to know if you are infected is to get an HIV test (see page 288).*



White blood cells are like guards. The body has millions of white blood cells that attack germs and fight off infection.

Untreated HIV kills white blood cells until few are left to attack germs. This leads to more frequent and more serious illness.

► Around the world, about 650,000 people died from AIDS-related causes in 2021.

AIDS (also called Advanced HIV Disease)

If HIV is not treated, it will become AIDS after several years (often faster for babies with HIV). Signs of worsening HIV infection are different for different people and can include ongoing diarrhea, cough, flu, skin problems, and mouth sores. This is not called AIDS until certain cancers or infections develop. Common serious infections during AIDS are tuberculosis and a form of meningitis, a brain infection.

Good *nutrition* and treatment with HIV medicines help the immune system stay strong so people can live a healthy life with HIV. But there is no cure for HIV. And many millions of people need better access to medicines.

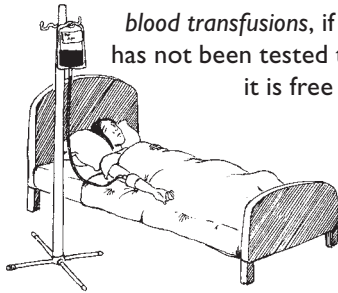
How HIV SPREADS

HIV can live in certain body fluids of people infected with HIV—blood, semen, breast milk, and the fluids in the *vagina*. The virus can spread when these fluids get into the body of another person. **This means that HIV can be spread by:**

unsafe sex with someone who has the virus. This is the most common way HIV spreads.



unclean needles or syringes, or any tool that pierces or cuts the skin.



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

pregnancy, birth or breastfeeding, if the pregnant person is infected and not taking ART.



getting infected blood in an open wound.

IMPORTANT: *Being on HIV medicines (called ART) greatly reduces the amount of HIV in body fluids. This means HIV spreads less easily. See age 291.*

How HIV DOES NOT SPREAD

HIV does not live outside the human body for more than a few minutes. It cannot live on its own in the air or in water. This means **you cannot give or get HIV in these ways:**

by touching, kissing, or hugging



by sharing food



by sharing a bed



by sharing or washing clothes, towels, bed covers, latrines, or toilets, if you follow the advice on page 295



by caring for someone with HIV or AIDS, if you follow the advice on pages 294, 295 and 309

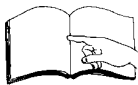


from insect bites



Why HIV Is Different for Different People

Preventing HIV



safer sex, 189
disinfection, 526

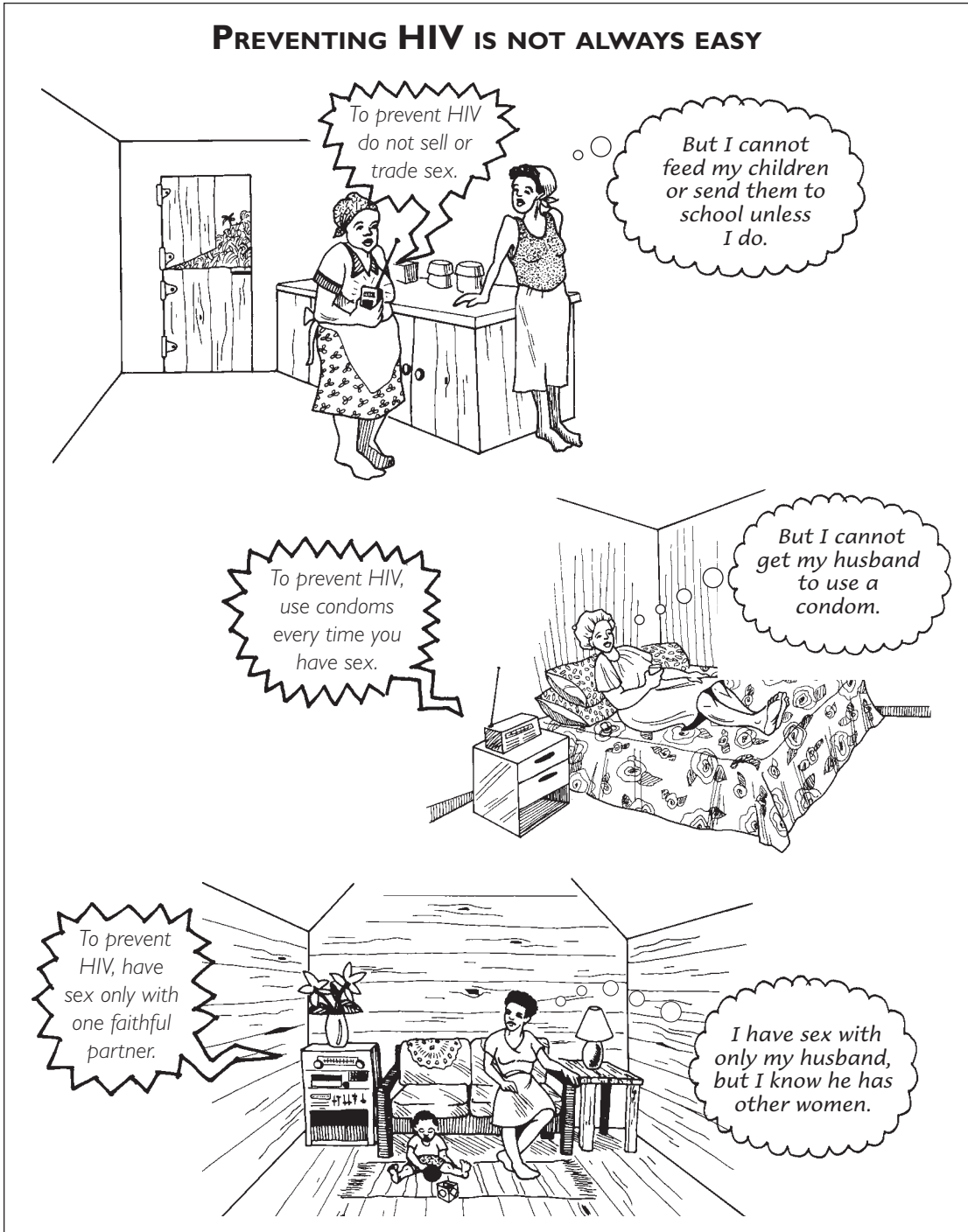
HIV is different for different people because:

- girls and women are often less able to refuse unwanted or unsafe sex. If they commonly have sex with older men, who have had more sexual partners, then they are more likely to be exposed to HIV.
- people who are “receivers” during vaginal or anal sex are more likely to be infected with STIs, including HIV. A receiver has someone’s penis in their vagina or anus during sex. This can cause small breaks in the walls of the vagina or anus, where HIV can get into the body. Being a receiver is a common role during sex for women, men who have sex with men, and transgender people.
- many women and transgender people live with untreated STIs because it is harder to see signs of infection in their bodies. Having other STIs makes it easier for HIV to infect them.
- poor health from malnutrition and too much childbearing make many people less able to fight disease.
- many people live where governments do not provide resources to make ART medicines available to everyone who needs them.
- women are usually the caretakers for sick family members, even if they are sick themselves.

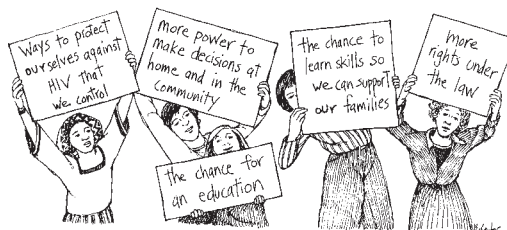
You can prevent the spread of HIV in these ways:

- Have sex with only one person, who has sex only with you.
- Practice safer sex—sex that does not let semen, blood, and vaginal fluids get into anyone’s vagina, anus, or mouth. Use condoms correctly whenever you have sex.
- Get tested for HIV and start taking ART if you are HIV-positive. Get tested for STIs, and make sure your partners do too.
- If you do not have HIV but you are regularly at risk, you may be able to take HIV medicines for prevention (PrEP) (see page 518).
- Avoid piercing or cutting the skin with needles or other tools that have not been disinfected between uses.
- Male circumcision (removing the skin that covers the tip of the penis) can protect against spreading STIs during sex and makes the risk of getting HIV from an infected partner about half as likely.
- Avoid blood transfusions except in emergencies.
- Do not share razors.
- Do not touch someone else’s blood or wound without protection (see page 295).

PREVENTING HIV IS NOT ALWAYS EASY



Women and girls should have the right to protect themselves against HIV. To do this we need:



➤ See Hesperian's **Health Actions for Women.**

HIV Testing

► *Rapid HIV testing is available in many health centers and hospitals at low or no cost. You can usually get test results the same day.*

► *HIV testing should always be done:*

- *with your permission.*
- *with counseling before and after the test.*
- *with privacy. No one should know the results except you and those you choose to tell.*

► *HIV self-tests that you can do at home are now available in many places.*

► *You may want to take someone you trust with you when you get your HIV test results.*

When HIV enters the body, the body starts to make antibodies right away to fight the virus. These antibodies usually show in the blood 2 to 4 weeks later.

Most HIV tests look for these antibodies in the blood. An HIV test is the only way to know if a person has been infected with HIV. **It is not a test for AIDS.**

A positive test result means that you are infected with HIV and your body has made antibodies to the virus. Even if you feel completely well, you can spread HIV to others.

A negative test result means 1 of 2 things:

- you are not infected with HIV, or
- you were recently infected but your body has not yet made enough antibodies to HIV to test positive.

If you have tested negative for HIV but think you might be infected, get tested again in about 6 weeks. A positive test may also need to be repeated. A health worker can explain your HIV test results and if you need to test again to be sure.

WHEN SHOULD YOU GET THE HIV TEST?

You and your partners may want to be tested if:

- you want to begin a new sexual relationship with someone, be in a faithful sexual relationship with one person, or get pregnant.
- you are pregnant.
- you, your partner, or your baby have signs of HIV.
- you or your partner have been having unsafe sex.

It can be more important to change unsafe activity than to have an HIV test.

The benefits of knowing your HIV test results

If your test is negative, you can learn how to protect yourself so you can avoid getting HIV.

If your test is positive, you can:

- start taking ART, which will keep you healthy and less likely to spread HIV to others.
- prevent the spread of HIV to your partner or baby.
- make changes in how you live and eat to help you stay healthy.
- get support from other people with HIV in your community.
- plan for yourself and your family's future.

The challenges of knowing your HIV test results

You may have many different feelings if you find out you are infected with HIV. It is normal at first to be shocked and even deny that you could have HIV. You may also feel anger and fear, and blame yourself or others.

It often helps to talk with someone, such as the health worker who gave you your test results or someone close to you. Choose who you tell carefully. Some people might not know how to support you or may be afraid because they do not understand HIV. If you feel that telling others will be too difficult, especially a partner or a child, it may help to first talk with someone who has had to share this news themselves.



IMPORTANT A negative test only means that you do not have HIV when the test is taken. If you do not protect yourself, you can still get infected.

Practice safer sex. Use condoms.

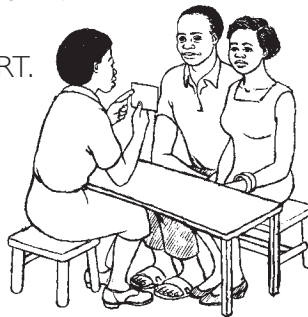
COUNSELING

A counselor is someone who listens and talks with people to help them cope with their worries, concerns, and fears, and then make their own decisions.

Counseling can be important throughout the life of a person with HIV, not only when they first discover they are infected.

A skilled counselor may be able to help a person:

- decide who to tell about having HIV and how to tell them.
- find the support of others who also have HIV.
- get the care and treatment they need quickly from health centers, including ART.
- get the support they need from their family and friends.
- understand how to stay healthy with HIV.
- plan for their future.
- learn how to be sexual in safe ways.



Counseling for people with HIV and their families can mean the difference between hope and despair. A Kenyan woman with HIV says, "When you meet a good counselor, you feel as if you have healed."



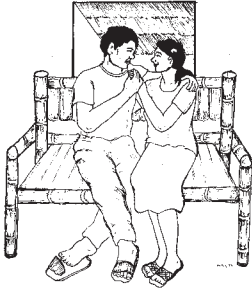
mental health

Many people living with HIV or who have family members with HIV have learned to counsel others about living with HIV. Their experience and advice can be especially helpful. If you are a health worker or a leader of a religious group, you can also be trained to help those with HIV.

Living Positively with HIV Infection

No one—not users of modern medicine nor traditional healers—has a cure for HIV. But with treatment, most people with HIV can be healthy for many years.

You can have a good life with HIV. You can have good times with your family and friends. You can have sex safely by taking ART regularly and using condoms. You can work and be active in your community. You can also help others who need support to live with HIV.



When your partner has HIV

By practicing safer sex and taking ART, someone with HIV can avoid passing it to a sexual partner. Condoms are the best way to prevent HIV, and there are other ways to be sexual besides vaginal and anal sex (see page 190). Anyone with HIV should also cover open wounds and get treated promptly for any other STIs.



support groups



mental health

Try joining or starting a group of people with HIV. Some people with HIV work together to educate their communities, to provide home care to those who are sick, to support the rights of people with HIV, and to increase access to treatment.



Look after your spiritual and mental health. Make time for things you enjoy. Your faith, friends, and traditions can bring you hope and strength.

If you have children, give them your daily care and guidance. Think about their futures and which family members they could live with if you become very ill. You may want to make a will, especially if you have some money, a house, or other things, so these will go to whom you wish. Women who are not legally married may not be able to leave their possessions to those they choose, so you may consider getting legally married to make this possible.

TAKE CARE OF YOUR HEALTH

- **Look for an HIV care and treatment program** as soon as you test positive for HIV (see page 517).
- **Take care of health problems early.** See a health worker regularly, and if you get sick, get the treatment you need.
- **Prevent infection as much as possible.** Each infection can weaken your immune system more. Wash your hands often and use safe water for drinking and cooking. Get tested for TB and hepatitis, and take cotrimoxazole to prevent many common infections. See page 296.
- **Eat plenty of nutritious food to keep your body strong.** The same foods that are healthy for people who do not have HIV are good for you if you have HIV. Buy nutritious food instead of spending money on *vitamin injections* (see page 165).
- **Avoid tobacco, alcohol, and other drugs** (see page 435).
- **Practice safer sex** for your own and your partner's health.
- **Try to get enough rest and exercise.** This helps your body and spirit stay strong and able to fight infection.

ART—medicines that treat HIV

There is still no cure for HIV, but *antiretroviral* medicines now let people with HIV live a long life with fewer health problems. *Anti* means against, and the virus that causes HIV is a *retrovirus*. If used correctly, antiretrovirals control HIV infection by reducing how much virus is in someone's body. The immune system then becomes stronger and the person can fight off infections and be healthy.

This treatment is called Anti-Retroviral Therapy, or ART. ART is becoming cheaper and more available in many countries. Government health facilities and other programs may offer ART at low or no cost.

ART works when used correctly

ART means taking 3 or 4 antiretroviral medicines regularly, usually every day. Once a person begins ART, the medicines must be taken without missing any doses. People taking ART will gain weight if they had lost it, and will become (or stay) healthy, but must keep taking ART because small amounts of HIV remain in the body. If they stop or miss doses, or take them at the wrong times, HIV can make them sick again.

Drug resistance: When people do not take ART as directed, their HIV can become *resistant*, which means the medicine will no longer work as well against the HIV. If drug-resistant HIV spreads among many people, then ART medicines will no longer work very well for anyone. Taking ART correctly helps keep it effective.

► If you have children, make staying healthy for them a goal.



using medicines to prevent infections, 296

TB, 303 and 387

► In some places, ART is called HAART or Triple Therapy. These are all the same thing.



ART

► ART helps most people with HIV stay healthy for many years.

Pregnancy, Birth, and Breastfeeding

It is your right to decide whether or not you want to become pregnant, and when.



PREGNANCY

Being pregnant does not make HIV worse. But a pregnancy can be more complicated for a person with HIV, especially if they are not on ART. They may:

- have a miscarriage (pregnancy ends early by itself) or give birth too soon.
- get infections after birth that are harder to cure.
- give birth to a baby infected with HIV.

Even so, many people with HIV still want to get pregnant and have a child.

If you want to get pregnant and you do not know if you or your partner has HIV, get tested and start taking ART if you have HIV. You can also reduce your risk of getting HIV while trying to get pregnant by having penis-in-vagina sex without a condom only during your fertile time (see pages 219 and 233). At all other times, use a condom or practice safer sex in other ways (see page 189). And do not have unprotected sex when you or your partner have signs of an STI.

ART PROTECTS BOTH YOU AND YOUR BABY

Without treatment, 1 out of 3 babies born to HIV-positive people becomes infected. Anyone who is pregnant should get tested for HIV and start taking ART if they are HIV-positive, for their health and their baby's. A baby can become infected with HIV in the womb, during birth, or while breastfeeding. When HIV is well-controlled by ART, it rarely spreads to a baby. Check with a health worker trained in preventing mother-to-child transmission. See page 520.



preventing
mother-to-child
transmission

BIRTH

Most transmission of HIV to babies happens during birth. The risk is greatest if the waters break more than 4 hours before birth, or if the baby has more contact with blood and vaginal fluids than usual during the birth, such as when there is tearing of the birth canal.

If you are pregnant or have a new baby, and you have HIV, it is especially important to take care of yourself—to eat well, prevent and treat other illnesses (like other STIs, malaria, and TB), and to keep taking ART. Get treated immediately for any infections after birth, which can be more dangerous if you have HIV. See page 68 for more ways to stay healthy in pregnancy.



infection after
childbirth

Finding out if a baby has HIV

During pregnancy, a baby gets antibodies from the pregnant person's blood. A person with HIV shares HIV antibodies, but usually not HIV itself. Because of these shared antibodies, the baby will test positive after birth with the HIV test most often used. After 12 to 18 months, the shared antibodies disappear and this HIV test will be positive only if the baby has HIV. A different blood test that costs more and takes more time can show if a baby younger than 18 months is HIV-positive.

► A very sickly baby born to someone with HIV may have HIV too. Take the baby as soon as possible to a health center for testing and treatment.

BREASTFEEDING

HIV infection can be passed to the baby in breast milk, but usually only if the person breastfeeding is newly infected or is very sick (the virus level can be very high then), and is not taking ART. To reduce the risk of infecting a baby:

- Start taking ART as soon as you find out you have HIV.
- Give nothing but breast milk—not even water—until the baby is 6 months old.
- Prevent breast and nipple infections, and cracked or bleeding nipples. See a health worker right away if you have any signs (see page 115).
- Treat for thrush if the baby's mouth has white spots or sores (see page 117).
- Only give replacement feeding, such as formula, if you will be able to do it safely for the whole time the baby needs it (see below).

In many places, the risk of diarrhea and malnutrition from other foods and unclean water is greater than the risk of HIV, especially in the baby's first 6 to 12 months.

For this reason and because breast milk protects the baby from so many illnesses, giving only breast milk for the first 6 months is usually safest. After 6 months, add complementary foods, and then wean the baby at 12 months, if you can meet the baby's nutritional needs (see page 110). It can take 3 days to 3 weeks to wean a baby.

You might consider these questions:

- Do children in your area often get sick or die from infections, diarrhea, or poor nutrition? If the answer is yes, then breastfeeding may be best.
- Do you have access to ART treatment? This makes breastfeeding much safer.
- Are clean, nutritious milks or formula and water available to replace breast milk? You will need supplies for 6 to 12 months, which is very costly. You will also need fuel for boiling water, containers for mixing, and the baby must learn to feed with a cup (see page 119). Animal milks lack nutrition babies need and should be a last choice. You will need to add vitamins, sugar, and clean water. Ask a health worker for the recipe for the kind of milk you have.



When People with HIV Get Sick

Caring for sick people at home can be done by anyone, even though this is often considered “women’s work.”



Hhealth problems from HIV may come and go. These can take a lot of energy and family resources.

If you are sick, try to see a health worker as soon as possible. You may also need to go to a clinic regularly to have an infection treated or to get medicines for HIV. But you may never need to stay in the hospital. Many people with HIV are more comfortable at home, cared for by family members in familiar surroundings.

Try to find a health worker, clinic, or doctor you trust who is experienced with HIV. Then go to the same person or clinic whenever you have a problem that does not get better with home treatment. Going to a clinic where you are known saves time, energy, and money and can help keep you out of the hospital.

In many communities, HIV programs send community health workers to people’s homes to help those with HIV.

If you are caring for someone who is seriously ill, be sure to take care of your own needs, too. Try to get help from other family members, friends, and people in the community. Community clubs, religious groups, youth clubs, and HIV self-help groups may assist you.

Community support often lets girls stay in school rather than doing home care.

Why do people with HIV still get sick when there is ART?

Many people with HIV still get sick and die. They may not know they have HIV, or they know but wait too long to start treatment. People who need ART sometimes cannot get it. Stigma and discrimination prevent many people from getting health information and care, such as sex workers, transgender people, men who have sex with men, people who inject drugs, or the partners of any of these people. Being poor and living far from health centers can also make it difficult to get ART.

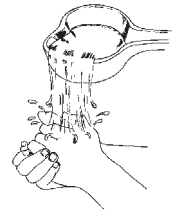
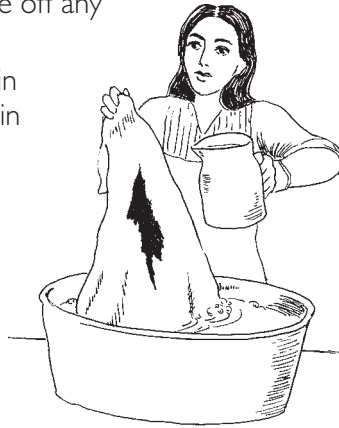
Some people who can get ART cannot do other things to stay healthy. They may not have enough healthy food or clean water. They may have malaria, TB, or other serious illnesses. Many people with HIV live with a lot of stress, worry, community rejection, unemployment, or violence, which all make it hard to stay healthy.

ART drugs are still not available everywhere. Sometimes the drugs that are available do not control HIV well, or they cause uncomfortable side effects so people stop taking them. Taking ART is easier if a person can change to drugs that work better for them.

Preventing infections in the home

A few precautions can prevent spreading HIV infection through simple contact. In fact, the risk of getting infections like diarrhea is greater for a person with HIV than getting HIV is for any caregiver.

- Wash your hands with soap and water before and after giving all care.
- Use clean water to wash dishes and food before eating or cooking.
- Keep bedding and clothing clean. This helps keep sick people comfortable and helps prevent skin problems. To clean clothing or sheets stained with blood, diarrhea, or other body fluids:
 - keep them separate from other household laundry.
 - hold an unstained part and rinse off any body fluids with water.
 - wash the bedding and clothing in soapy water and hang to dry—in the sun if possible.
 - you can add bleach to the soapy water and soak 10 minutes
- Avoid touching bloody body fluids with bare hands. Use a piece of plastic or paper, gloves, or a big leaf to handle dirty bandages, cloths, blood, vomit, or stool.
- Do not share anything that touches blood. This includes razors, needles, any sharp instruments that cut the skin, and toothbrushes. If you must share such things, disinfect them before another person uses them.
- Keep wounds covered on caregivers and on persons with HIV. Burn or bury soiled bandages that cannot be washed.



► Good home care includes trying to make sure that the person with HIV has enough nutritious food to eat and clean water to drink.

► Comfort and kindness are as important as cleanliness in caring for a person with HIV or AIDS.



Other Ways to Stay Healthy

When a person has HIV, their immune system is always somewhat weaker, making illness more likely. It may get increasingly weaker with each illness. Without ART, this continues until the person's body is too weak to survive.

Preventing infections and illness with ART and other medicines is the best way to support the immune system. It is also important to treat any infections to keep them from getting worse or spreading. This way a person with HIV can stay as healthy as possible.

Using medicines to prevent infections

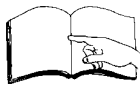
Along with your ART medicines, regular use of the antibiotic cotrimoxazole helps prevent pneumonia, diarrhea, malaria, and other infections. You should start taking it if you have problems with weight loss, sores, or cracks around your lips, itching rashes, shingles, mouth ulcers, or frequent colds, or if you live where malaria or severe bacterial infections are common.

Take cotrimoxazole 960 mg by mouth daily with plenty of water (2 tablets of 480 mg; 80 mg trimethoprim and 400 mg sulfamethoxazole). If possible, take it every day whether you feel sick or not.

IMPORTANT *Allergic reactions to cotrimoxazole are more common if someone has advanced HIV disease. Stop taking it if you get a skin rash or another sign of drug allergy.*

Some people have problems with yeast infections of the vagina when they take antibiotics. Eating yogurt or sour milk or sitting in a pan of warm clean water can help. For more information on yeast infections of the vagina, see page 265; for yeast of the skin, see page 300; and for yeast of the mouth, see page 304.

In some countries, people with HIV can take medicine called isoniazid daily to prevent tuberculosis (TB). See Chapter 25 for information about TB and page 505 for information about isoniazid.



counseling, 289
living positively with
HIV, 290

MENTAL HEALTH

HIV infection can be emotionally stressful. People living with HIV may feel afraid and tense (anxiety), very sad, or without energy or pleasure in life (depression). Anxiety and depression also weaken the body, making it easier to get sick or miss doses of ART.

Reach out to friends or a support group for help—it is difficult to come out of depression or worry on your own. A health worker can help you tell the difference between signs of illness that are caused by physical problems and signs that may be caused by anxiety or depression. Knowing the cause of a problem may make it easier to treat. It is possible to overcome feelings of anxiety and depression. Also see the Mental Health chapter on page 413.

People with HIV can get sick easily with many different health problems, especially if they are not taking ART. This section has information about the most common of these problems and how to care for them. People with HIV will have many fewer health problems when they take ART.

Having one of these problems does not mean someone has HIV or AIDS. This information will be helpful to anyone who has any of these signs of illness.

FEVER

Fevers often come and go. It is hard to know if fever is from an infection that can be treated, like *tuberculosis*, *pelvic inflammatory disease (PID)*, or *malaria*, or if it is from HIV itself. If a fever is caused by an infection, make sure to get that infection treated.

To check for fever, use a *thermometer*, or put the back of one hand on the sick person's forehead and the other on your own. If the sick person feels warmer, they probably have a fever.

Treatment:

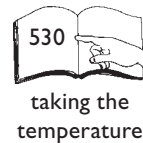
- Remove extra clothing and let fresh air into the room.
- Cool the skin by pouring water over it, wiping the skin with wet cloths, or putting wet cloths on the chest and forehead and fanning the person.
- Give plenty of liquids even if the person is not thirsty. With fever it is easy to become dehydrated (lose too much water).
- Give a medicine like paracetamol, aspirin, or ibuprofen to help reduce fever.
- Keep the skin clean and dry. Use lotion to help prevent sores and corn starch to help prevent rashes.

Get help when:

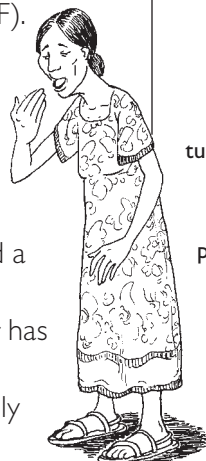
- the temperature is very high (over 39°C or over 102°F).
- the fever goes on for 2 weeks.
- there is coughing, difficulty breathing, fast breathing, fast heartbeat, or loss of weight.
- there is a stiff neck, severe pain, or sudden, severe diarrhea with the fever.
- the person with the fever is pregnant or recently had a baby, miscarriage, or abortion.
- the person is being treated for malaria, and the fever has not gone away after the first treatment.
- there is discharge from the vagina and pain in the belly with the fever.

Common Health Problems

► Also see *Where There Is No Doctor* or another general health book for more about these problems.



tuberculosis, 303, 387
infection after
abortion, 255
pelvic inflammatory
disease, 276



► *Malnutrition is especially dangerous for someone with HIV.*



TRANSPORT!

DIARRHEA

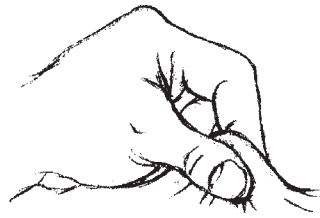
Diarrhea is passing 3 or more loose or watery stools in a day. Passing many normal stools is not the same as having diarrhea. Diarrhea may come and go and can be hard to cure. The most common causes of diarrhea in persons with HIV are infections in the intestines from unclean water or food, the HIV infection itself, or the side effects of some medicines.

Diarrhea can cause:

- **malnutrition**, because food often passes through the body so quickly that the body cannot use it. Also, someone with diarrhea may not feel hungry.
- **dehydration**, because people often lose more liquid in their stools than they take in. Dehydration happens faster in hot climates and in people who have a fever.

Signs of dehydration:

- thirst
- little or no urine
- dry mouth
- feeling dizzy when standing up
- loss of stretchiness of the skin



Lift the skin between two fingers...



...if the skin fold does not fall right back to normal, the person is dehydrated.

IMPORTANT Someone who has these signs and is also vomiting needs liquids in the vein (IV) or in the rectum. Get medical help fast. Severe dehydration is an emergency.

Treatment:

- **Drink more liquids than usual.** Fruit juices, coconut water or milk, sweetened weak tea, gruel, soup, rice water, and rehydration drink are good for fighting dehydration. Even someone who does not feel thirsty should sip something every 5 to 10 minutes.
- **Keep eating.** Try to eat small amounts of foods that are easy to digest. Cook food well, and then mash and grind it. Some good foods are cereals mixed with beans, meat, or fish; dairy products, such as milk, cheese, and yogurt; and bananas. Do not eat uncooked vegetables, whole grains, fruit peels, hot peppers, or foods or drinks with a lot of sugar. These may make diarrhea worse.



Take medicine only for these kinds of diarrhea:

Signs	Medicine	How much	How to use
Sudden, severe diarrhea without fever or blood in the stool, if there is cholera in your area	doxycycline or ciprofloxacin	300 mg 1 g (1000 mg)	by mouth 1 time
Or if you are pregnant: Diarrhea with blood, with or without fever	azithromycin or ciprofloxacin or metronidazole	500 mg 500 mg 500 mg	by mouth 1 time 2 times a day for 5 days 3 times a day for 7 days
Diarrhea that happens on and off continuously for 14 days	cotrimoxazole then cotrimoxazole and metronidazole	1920 mg 960 mg 500 mg	by mouth 2 times a day for 14 days 3 times a day for 7 days 3 times a day for 7 days

If you do not start feeling better after 2 days, see a health worker

Someone who has diarrhea for a long time may get a red, sore area around the *anus*. It may help to put some petroleum gel or zinc oxide cream on the sore area after passing stool. The person may also get piles (*hemorrhoids*, see page 70).

Get help if the person:

- has signs of dehydration (see page 298).
- passes bloody stools that do not go away with medicine.
- cannot eat or drink as usual.
- does not seem to be getting better.
- has a high fever (over 39°C or over 102°F).
- has many watery stools in a day.
- is also vomiting.

Prevention:

- **Drink clean water.** Purify water before drinking or cooking with it.
- **Eat clean, safe food.** Make sure raw foods are washed or peeled, and that meat is well cooked. Protect food from dirt, flies, insects, and animals, which can spread germs.
- **Always wash your hands:**
 - after using or helping someone use the *latrine* or toilet.
 - after cleaning soiled children or sick people.
 - before making food or drink.
- **Protect your community's water source.**
- **Take daily cotrimoxazole** (see page 296).

► Anyone with HIV and diarrhea should be on ART. See page 517.



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RASHES, ITCHING, AND SKIN PROBLEMS

Skin problems happen more as the immune system weakens. When HIV is untreated, visible and uncomfortable problems can upset a person and make them avoid seeking out friends or even health care. ART is the main treatment for most skin problems from HIV.

Keep areas with skin problems clean, and for dry skin, rub glycerin or vegetable oil into the skin after bathing. Try putting a spoon of that oil in the water you wash with.

Allergic reactions

Allergic reactions often cause an itchy rash and are common in people with HIV. Medicines with sulfa (including cotrimoxazole) cause allergic reactions in some people. If you get an itchy rash, itchy eyes, vomiting, or dizziness after taking a medicine, stop taking it immediately. See a health worker to get a non-sulfa medicine you can use instead.

Fungal infections (yeast, candida)

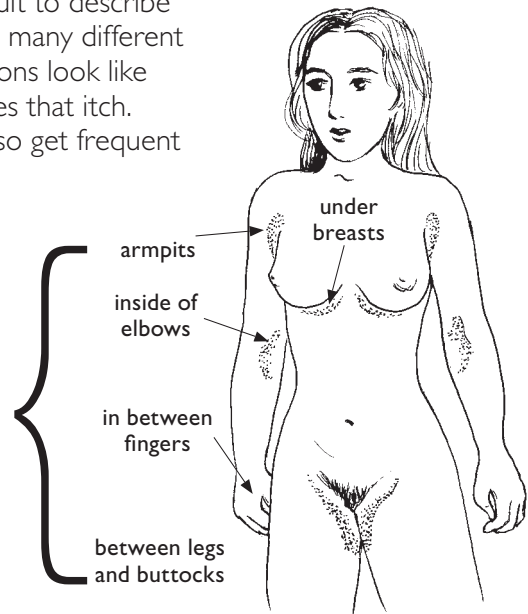
Fungal infections are difficult to describe because they can look like many different things. Some fungal infections look like round, red, or scaly patches that itch. Someone with HIV can also get frequent yeast infections in the vagina.

You may have a fungal infection if you have a skin problem in one of these areas:

Treatment:

- Keep skin with red, itchy patches clean and dry. If possible, leave it uncovered, open to air and sunlight.
- Put miconazole cream or nystatin cream on the area 2 times a day for 5 to 7 days.

Also see page 305 for information on fungal infections in the mouth.



Brown or purple patches on the mouth or skin

These patches are caused by a cancer of the blood vessels or lymph nodes called Kaposi's sarcoma, or KS, so start ART as soon as possible. If you are having problems, like difficulty eating because of patches in your mouth, see a health worker.

Itching

Home treatments:

- Cool the skin or fan it.
- Avoid heat and hot water on the skin.
- Avoid scratching, which causes more itching and sometimes infection. Cut fingernails short and keep them clean.
- Use cool cloths soaked in water from boiled and strained oatmeal, or local plant medicines.
- Use antihistamines with caution if you are pregnant or breastfeeding).

Treatment with medicines (use any one of these):

- Put calamine lotion on the rash with a clean cloth as needed.
- Put small amounts of 1% hydrocortisone cream or ointment on the patches 2 times a day.
- Take an antihistamine, such as diphenhydramine or hydroxyzine, by mouth. Take 25 mg, 4 times a day.

Herpes zoster (shingles)

Shingles is an infection caused by the chicken pox virus. It usually begins as a painful rash with blisters, which may then break open. It is most common on the face, back, and chest. The area may burn and be very painful. The rash may start to heal in a few weeks, but the pain may last longer.

Treatment:

- Put calamine lotion on the rash 2 times a day.
- Keep the rash dry. Cover with a loose bandage if clothing rubs the rash.
- To prevent infection, bathe each day with soap and clean water and then put 0.05% chlorhexidine liquid on the rash. If it still becomes infected, see below.
- Strong pain medicine is often needed.
- Take acyclovir.

IMPORTANT Do not touch your eyes. Shingles can harm your sight or even cause blindness.

These can also help itching:

- tincture of tea tree from Australia
- juice from aloe vera plants



➤ Use antihistamines with caution if you are pregnant or breastfeeding (see the "Medicines Pages").

➤ Antihistamines may make you sleepy.



NAUSEA AND VOMITING



If nausea and vomiting prevent people from eating or drinking, they can become weak, malnourished, and dehydrated. For some people, nausea or vomiting may go on day after day. Nausea and vomiting may be caused by:

- infections.
- some medicines.
- problems with the stomach and intestines.
- HIV infection itself.

Treatment:

- Take small bites of dry food (bread, crackers, chapati, tortilla) when you wake up in the morning.
- Try to avoid the smell of food as it cooks. If a food or smell seems to cause nausea, avoid that food.
- Drink small amounts of mint, ginger, or cinnamon tea.
- Lick a lemon.
- Clean your teeth and rinse your mouth well to get rid of the bad taste after *vomiting*.
- Let fresh air into the house or room often.
- Soak a cloth in cool water and put it on your forehead.
- If the problem is caused by a medicine, see if you can use a different medicine instead.



other medicines



rehydration drink

If vomiting is severe:

1. Do not drink or eat for 2 hours.
2. Then, for the next 2 hours, sip 3 tablespoons of water, rehydration drink, or other clear liquid every hour. Slowly increase the amount of liquid to 4 to 6 tablespoonfuls every hour. If you do not vomit, keep increasing the amount of liquid.
3. If you cannot stop vomiting, use metoclopramide 10 mg every 8 hours as needed by mouth or in the vein (see page 506).
4. As nausea gets better, start to eat small amounts of food. Start with plain foods such as bread, rice, cassava, or porridge.

When to get help:

- The person cannot keep any food or drink down for 24 hours.
- The person vomiting also has pain in the belly or a high fever.
- The vomiting is very strong, it is dark green or dark brown, it smells like stool, or has blood in it.
- The person has signs of dehydration.

COUGH

Coughing is the body's way of cleaning the breathing system and getting rid of *mucus*. Coughing is also a common sign of lung problems, such as pneumonia or tuberculosis. Any person with HIV who has a cough for more than 2 weeks should be seen by a health worker to be tested for TB.

When a cough produces mucus, do not take medicine to stop the cough. Instead, do something to help loosen and bring up the mucus. This makes a cough heal faster. Cover your mouth when you cough.

Treatment:

- Drink lots of water—it is better than any cough medicine. It loosens mucus so you can cough it up more easily.
- Keep active by walking or by turning in bed and sitting up. This helps the mucus come out of the lungs.
- Soothe the throat by drinking tea with lemon and honey or your own herbal remedy. Cough syrups that you buy are more expensive and not more helpful.
- If the cough is very bad and keeps you awake at night, take 30 mg of codeine or codeine cough syrup (see page 496).

IMPORTANT *If you cough up yellow, green, or bloody mucus, the cough could be caused by TB or pneumonia (see next page).*

Tuberculosis (TB)

Tuberculosis (TB) is a serious infection that mostly affects the lungs. The signs of TB and advanced HIV disease (AIDS) are similar, but they are different diseases. **Most people with TB do not have HIV or AIDS.** See the TB chapter, page 387.

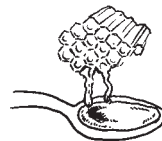
But someone with HIV can get TB very easily because their immune system is so weak. Unfortunately, having both infections makes each disease worse. TB is the main cause of death for people living with HIV.

TB can be cured, even in people who are very ill, so it is important to get treatment quickly—both treatment for TB and also ART. See a health worker or find an HIV care and treatment program. Someone with HIV who lives in an area with a lot of TB can take the medicine isoniazid to prevent illness. See page 504.

► *DO NOT smoke if you have a cough.*

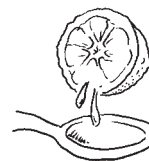
You can make this syrup for all kinds of cough, especially a dry cough. Take one teaspoon every 2 or 3 hours.

Mix:
1 part
honey



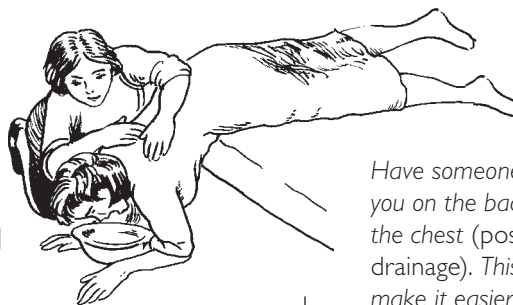
+

1 part
lemon juice



+

1 part
water



Have someone hit you on the back of the chest (postural drainage). This can make it easier to cough up the mucus.



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ART, 517 to 521

► People with HIV and pneumonia should be on ART (see page 517).

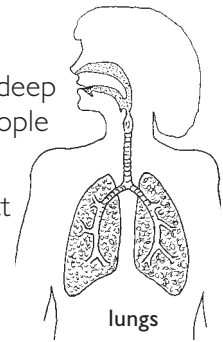


cotrimoxazole

Pneumonia

Pneumonia is caused by germs that infect people deep in the lungs. Old people and very sick or weak people get pneumonia more easily.

Pneumonia is serious for people with HIV. Treat it right away. Sometimes it must be treated in the hospital with medicines in the vein (IV).



Signs:

- Breaths are small and fast (more than 30 breaths a minute in an adult). Nostrils may open wide with each breath.
- You feel as if you cannot get enough air.
- You have a sudden, often high, fever.
- You cough up mucus that is green, rust-colored, or bloody.
- You feel very weak and ill.

Treatment:

- Take cotrimoxazole for 21 days.
- Drink plenty of liquids.
- Try to bring the fever down. See page 297.
- If you are no better in 24 hours or if you are getting worse, get medical help right away.

PROBLEMS WITH THE MOUTH AND THROAT

Mouth problems are common for people with HIV, but much less common if you are taking ART. Some problems can be treated by rinsing daily with a mouthwash that kills germs, such as 0.12% or 0.2% chlorhexidine gluconate. Or mix equal parts hydrogen peroxide and water. Do not swallow these mouthwashes.

Problems with the mouth or throat can keep people from eating normally, making them sicker. They should try to:

- eat smaller amounts of food, but more often.
- add vegetable oil to foods to give more energy.
- avoid uncooked vegetables. They are harder to chew and digest and may have germs.
- drink a lot of liquids and watch for dehydration.

Soreness in the mouth and throat

Many people with HIV have soreness in the mouth, and problems with their teeth and gums. Try to:

- eat soft, plain foods—not hard, crunchy, spicy, or salty foods.
- try cold foods, drinks, or ice to help ease pain.



Using a straw to drink can help with painful mouth problems.

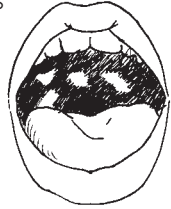
Sores, cracks, and blisters around the mouth

Painful blisters and sores (also called *cold sores* or fever blisters) on the lips can be caused by the *herpes* virus. Like a person who does not have HIV, someone with HIV can get these sores at any time. The sores may last a long time, but they usually go away on their own. To help prevent infection, put antibiotic ointment, such as mupirocin, on the sores. A medicine called acyclovir may also help (see page 490 in the “Medicines Pages”). Wash your hands after touching the sores.

White patches in the mouth (oral thrush)

Thrush is a fungal infection that causes white patches and soreness on the skin inside the mouth, on the tongue, and sometimes down the throat. This can cause pain in the chest.

The patches look like milk curds stuck to the cheek or tongue. If the patches can be scraped off, it is probably thrush. A person with HIV who gets oral thrush should start taking ART (see page 517)



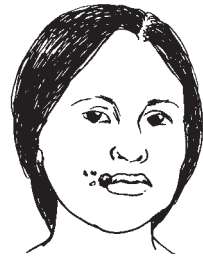
Treatment:

Gently scrub the tongue and gums with a soft toothbrush or clean cloth 3 or 4 times a day. Then rinse the mouth with salt water or lemon water and spit it out (do not swallow). In addition, use any ONE of these remedies:

- Put 1 ml (1/5 teaspoon) of nystatin solution (100,000 U) in your mouth, hold it there for 2 minutes, and then swallow it. Do this 4 times a day for 7 days. Or,
- Suck one 500,000 U nystatin tablet, 4 times a day. Keep the tablet in your mouth as long as possible and continue using nystatin for at least 2 days after signs go away.
- If thrush is very bad, take 100 to 150 mg fluconazole by mouth for 7 to 14 days.

Difficulty swallowing (esophageal thrush)

Thrush can move down into the tube that goes from the mouth to the stomach (the esophagus). Swallowing may become so painful the person cannot eat or drink. If this happens, the person needs urgent hospital care. A person who can still swallow medicine should take 100 to 200 mg fluconazole by mouth each day or 200 to 400 mg ketoconazole each day for 14 to 21 days..

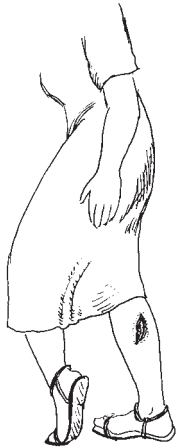


► Cracks and sores in the corner of the mouth can also be caused by malnutrition.

► If mouth problems are painful, take paracetamol. See page 511.

► If you are pregnant or breastfeeding, do not take fluconazole (see the “Medicines Pages”).

► Do not take ketoconazole if you are taking the ART medicines nevirapine (NVP) or lopinavir/r (LPVIR).

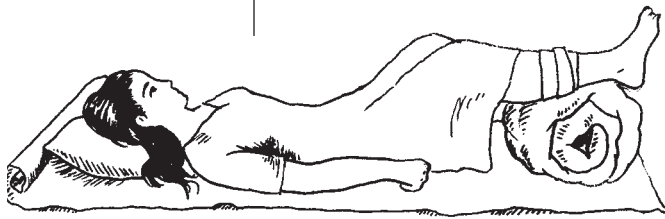


WOUNDS AND SORES

Wounds are caused by an injury that breaks the skin. Sores are often caused by *bacteria* or constant pressure on the skin (*pressure sores*). They can happen very easily to people who are mostly in bed or who use wheelchairs. Take special care of any cut, wound, or open sore so that it does not become infected.

General care of open wounds and sores:

1. Wash the wound or sore with clean water and mild soap at least once a day. Wash around the edge of the wound first, then wash from the center out to the edges. If possible, use separate pieces of cloth for each wipe.
2. If the wound has pus or blood in it, cover the area with a clean piece of cloth or bandage. Leave the bandage loose and change it every day. If the wound is dry, it can be left open to the air. It will heal more quickly that way.



3. If the wound is on the legs or feet, raise the legs above the level of the heart. Do this as often as possible during the day. During the night, sleep with the feet raised. Avoid standing or sitting for a long time. Some walking is helpful.

4. Wash soiled cloth and bandages in soap and water, then put them in the sun to dry. Or boil them for a short time and hang them to dry. If the cloths and bandages will not be used again, burn them or throw them in a pit latrine.

Home treatments for pressure sores

Papaya (paw paw): This fruit contains natural *chemicals* that help make the old flesh in a pressure sore soft and easy to remove.



Soak a sterile cloth or piece of gauze in the "milk" that comes from the trunk or green fruit of a papaya plant. Pack this into the sore. Repeat this 3 times a day.

Honey or sugar: These will kill germs, help prevent infection, and speed healing. Put a thin layer of honey on the sore, or pour granulated sugar on the sore to cover it. Throw away any sugar that does not stick to the sore.



IMPORTANT Clean the sore and redo the treatment at least 2 more times each day. If the honey or sugar become too filled with liquid from the sore, it will feed germs rather than kill them. For information on preventing pressure sores see page 142.

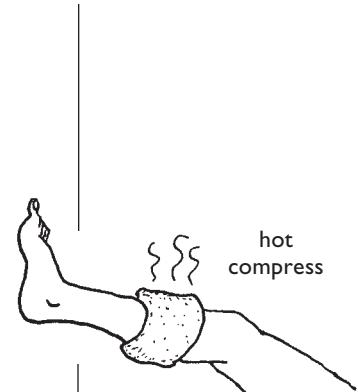
Treatment of open wounds and sores that are infected:

Wounds and sores are infected if they:

- become red, swollen, hot, and painful.
- have pus in them.
- begin to smell bad.

Follow the general care advice (steps 1 through 4) on the previous page, **and also:**

1. Put a hot *compress* over the wound 4 times a day for 20 minutes each time. Or try to soak the wound in a bucket of hot water with soap or potassium permanganate in the water. Use one teaspoon of potassium permanganate to 4 or 5 liters (or quarts) of water. When you are not soaking the infected part, keep it raised up above the level of the heart.
2. If part of the wound looks gray or rotten, rinse it with hydrogen peroxide after soaking it. Try to pick off the gray parts with a clean piece of gauze or tweezers that have been cleaned (see page 526 for how to clean medical tools).
3. Cover the wound with gauze soaked in saline solution. (To make saline solution, add 1 teaspoon of salt to 2 cups of boiled water. Only use for 24 hours, then throw it away and make more if needed.) Otherwise, cover the wound with a clean covering.
4. Use cephalexin for 5 to 7 days (see the "Medicines Pages").



► **Be careful:**

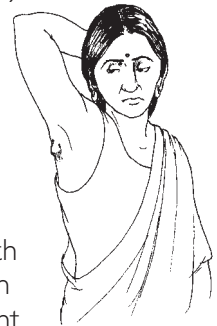
If you use too much potassium permanganate or very hot water, you will burn the skin.

► Someone with HIV and skin infections or fevers should be taking ART (see page 517).

Treatment of closed wounds that are infected (abscesses and boils)

Abscesses and boils are raised, red, painful lumps on the skin. They are most common in the *groin* and armpits, and on the *buttocks*, back, and upper legs.

If you notice a lump, start using warm compresses right away for 20 minutes, 4 times a day. Often this will make the lump open and the pus inside will come out. Keep putting on clean, warm cloths until pus stops coming out and the area begins to heal. Cover the lump with a loose, clean bandage. If it becomes too large and painful, see a health worker who has been trained to drain abscesses using sterile equipment. Use cotrimoxazole, doxycycline, or clindamycin (see the "Medicines Pages").



See a health worker trained to treat HIV and AIDS if you have a wound and:

- a fever.
- redness (a sign of infection) around the wound is getting bigger.

Get medical help if you have a wound and:

- you can feel swollen *glands* in your neck, groin, or armpits.
- the wound has a bad smell, brown or gray liquid comes out, the wound turns black and bubbles, or blisters form. This could be gangrene.
- you are taking antibiotics and not getting better.

MENTAL CONFUSION (DEMENTIA)

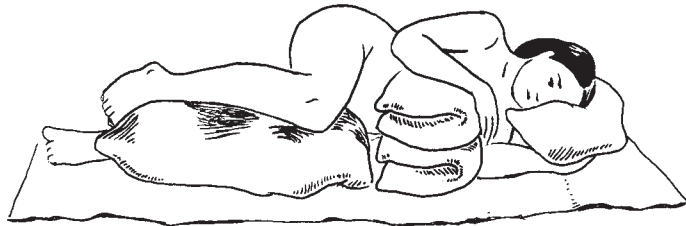
Some confusion or other mental changes are common among people with advanced HIV disease, especially if a person has been sick for a long time. Confusion with a headache that does not go away, stiff neck, and fever can be signs of brain infection. Seek help immediately. Confusion can also be a side effect of ART or other medicines.

PAIN

We all have pain sometimes—from injury, illness, or even health care—but no one should have pain that can be treated or prevented. When someone has HIV, starting ART as soon as possible can prevent a lot of pain, such as mouth or skin sores, nerve or joint pain, and severe pain from cancer or other serious illnesses.

To help someone in pain:

- Try relaxation exercises, meditation, or prayer.
- Try to take their mind off the pain—talk with the person, play music, watch TV, share community news, or read aloud.
- For pain from swelling in the hands and feet, try raising the swollen part.
- For a burning feeling in the hands and feet caused by nerve pain, put the body part in water.
- For skin that hurts to touch, line the bed with soft covers and pillows or animal skins. Be gentle when touching the person.



- For headache, keep the room dark and quiet.
- Acupressure may help some kinds of pain.

Medicines for pain:

Medicines used to control pain should be taken as needed, according to instructions. Take care not to use too much in a day.

- first try a lower-cost medicine such as paracetamol, aspirin, or ibuprofen
- codeine if you need something stronger
- morphine if the pain is very bad

► Pain medicines work best if you take them before the pain gets very bad.



medicines for pain

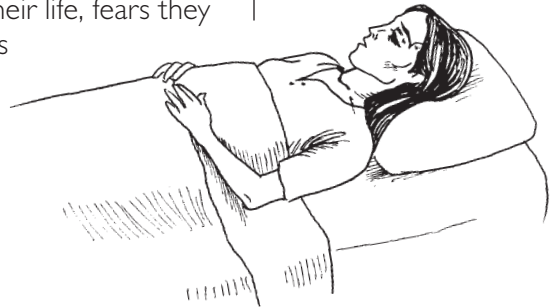
At some point there may be nothing more that can be done to treat a person with advanced HIV disease. If a dying person wants to remain at home, you can help them die with dignity by:

- keeping them comfortable and offering emotional support.
- having family and friends sit with them.
- allowing them to make decisions.
- helping them prepare for death. It may help someone to talk about death, things they are grateful for in their life, fears they may have about dying, and worries or wishes for the family's future. It does not help to act as if the person is not dying. Assure a dying person that you will do what you can to prevent pain and discomfort and that there is nothing to be ashamed of as their body lets go of life. Talk about funeral arrangements if they wish.

Signs that death is near might be:

- the person's body starts to fail.
- medical treatment stops working or is not available.
- the person says they are ready to die.

Caring for Someone Who Is Near Death



As someone nears death, they may be unconscious, stop eating, breathe very slowly or very fast and unevenly, stop passing urine, or lose control of passing urine or stool.

Caring for the body of someone with HIV who has died

HIV can live up to 24 hours in a person's body after death. During that time, take the same precautions with the body as when the person was alive (see page 295)

HIV IS NOT A DEATH SENTENCE, BUT LACK OF TREATMENT IS

Many people with HIV are not on treatment. They may not know they have HIV, or they may lack access to health care. People who are poor, live far from care, or have low status in the community may be prevented from getting care (see box on page 294). Because so many people with HIV are not on treatment, more than half a million people die every year from AIDS. Nearly 2 million people become newly infected with HIV each year.

For groups most affected by HIV—young women, men who have sex with men, transgender people, people who inject drugs—community education and peer support help more people get tested, start treatment, and stay healthy. It also prevents HIV from spreading. Learning together from and with people who share similar life experiences can help spread information, skills, and trust through communities.

► Anyone can get HIV. With treatment, anyone with HIV can live a good life.

Working for Change



sexual health

Every generation of young people needs to learn the benefits of using condoms.



TO HELP PREVENT HIV

In the community

- Make sure everyone has access to HIV information, HIV testing, ART, and sexual health services, including condoms, STI testing, counseling and PrEP where it is available.
- Educate people about why different people are at risk for becoming infected, such as girls, young women, and transgender people. Help people see that HIV has roots in poverty and in many people's inability to protect themselves in their sexual relationships.
- Train peer educators. When girls, women, and transgender people work as peer educators, they can help others in their communities understand their bodies and sexuality, and gain the self-confidence and skills to negotiate safer sex.
- Use theater and media to help women and others feel it is OK to know about, talk about, and prevent HIV. For example, use a play or comic book to show that “good” girls (or homosexual boys or men) can discuss HIV with their partners or can buy condoms and ask their boyfriends to use them. At the same time, you can show different ideas about what it means to be a man or a woman. Help people question the idea that men should have many sex partners and that women should be passive about sex. Show how these ideas are dangerous to people's health.
- Help parents, teachers, and other adult role models become more comfortable talking about sex and HIV with young people.
- Bring education about HIV and free condoms to community meeting places—bars, schools, sports events, markets, and military bases.

Women working together against HIV—with a “sex strike”

The women of Palestina, a small town in northeastern Brazil, learned that a man infected with HIV had unsafe sex with at least two women in the town. After talking together, they decided to stop having sex with their husbands and boyfriends. They demanded that their partners get tested for HIV before they would begin to have sex again and then insisted upon safer sex practices.

The women continue to ask for safer sex and proof of an HIV test before they have sex with a partner. One woman said, “If he won't practice safer sex, we won't go together anymore.”

If you are a health worker

- Include HIV education, testing, and care in broader health services—in general health clinics, pregnancy care, and family planning programs. Give information to every person you see about how HIV spreads and does not spread—especially if they have other STIs. Encourage anyone having sex to use condoms, even if they are using another form of family planning.
- Make health services friendly and accessible to more people in your community. Think about where and when health services can best serve young people, sex workers, sexual minorities, and people who inject drugs. Be sure health services are private and confidential.
- Use precautions against HIV infection every time you have to cut the skin or touch body fluids. This includes whenever you give an injection, stitch skin or tissue, help with childbirth, or examine someone's genitals. Follow the advice on page 295.
- Invite someone from a regional HIV or AIDS organization to meet with health workers in your area. They can help you learn how to treat infections that people with HIV might get.
- Discuss the problems that people with HIV and AIDS face. Think about how you can help people using the resources you have and where you might find more resources to help meet people's needs. If health workers can work together to get more resources, they will not have to confront this problem alone.

► Make sure people in your community know where to get tested for HIV and how to get care and treatment with ART.

► For community strategies to prevent HIV, see Hesperian's book *Health Actions for Women*, page 134.

Health workers and the community can work together

When health workers join forces with families and other community members, they have more power. They may be able to advocate for more effective and supportive health services for everyone with HIV, including people whose needs are often not considered. For example, mobile services could be offered for those who cannot get to the health center. When new staff are hired, these could include people from minority communities.

To provide effective treatment, clinics also need to have enough medicines and supplies. Community mobilization can help make this happen. Working together can also increase activities at health centers, such as support groups, health talks, needle-exchange programs, food distribution, community vegetable gardens, or a play space for children in the waiting area.

