

Cancer

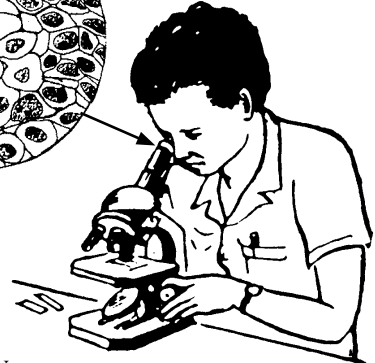
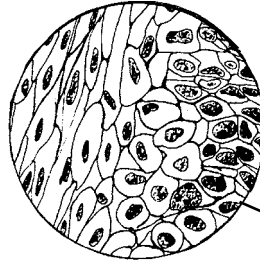
What is Cancer?

Our bodies, and all living things, are made of cells. Cells are tiny units of different types that, working together, make a living thing. Each cell is also alive. It divides to make new cells, and each one eventually dies.

Sometimes a new cell forms the wrong way and is not healthy. Usually this causes no harm to the body as a whole, because it is just one tiny cell of millions, and it soon dies. But sometimes a damaged cell divides and creates more and more cells just like it. These damaged cells reproduce and form an unhealthy mass or growth in the body called a tumor.

A tumor can be benign, meaning it does not spread or cause damage. Or it can be malignant, meaning it keeps growing and invades other parts of the body. This is cancer. Depending on the types of cells and where they grow, cancer can be slow-growing and harmless, or can cause severe sickness or death.

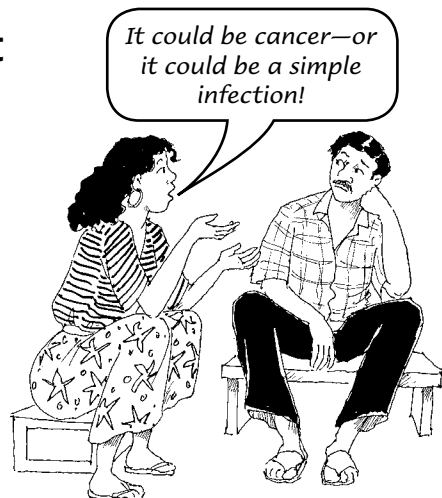
Cancer is not one disease. Every type of cancer is different. Some can be prevented, and some are easily treated and even cured. Others are deadly.



Cells are so small, you can only see them with a microscope.

If you are worried you might have cancer

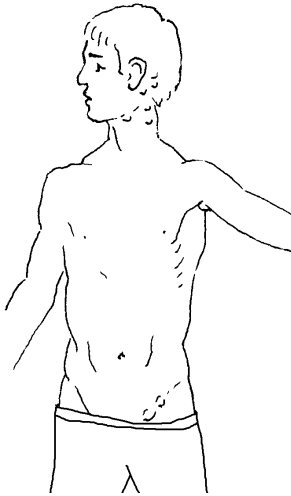
Thinking you might have cancer can be very worrisome. Do not delay in seeking help for a sign that could mean cancer, but stay calm and remember that many cancer signs are also signs of other, less serious problems.



For most cancers, the only sure way to know you have it is with a surgical test called a biopsy which is available at some clinics and hospitals. During a biopsy, a health worker removes a very small piece of the body where cancer is suspected and examines it under a microscope to look for abnormal cells.

If a new lump is growing or causing pain, under your skin or anywhere in your body, it should be examined. This is especially important if it is firm and does not move. A lump could be an infection or a bump that is harmless and will go away by itself, but it also could be a sign of cancer, one that is possible to find early and treat. Ask a health worker about a lump that:

- grows in size
- is new and does not go away in a few weeks
- causes pain
- feels hard



The body fights infection through the lymph system, but lymph glands can also be a place where cancer develops. See a health worker about swelling or lumps that do not go away, especially:

- behind the ear
- on the neck or under the chin
- in the armpits and groin

If a person has a lump for many years that does not grow or change, it probably is not cancer.

There are signs common to many cancers, but not all cancers cause these signs. And all these signs can be caused by chronic health problems that are not cancers. In this chapter, read about the signs specific to each kind of cancer.

SIGNS COMMON TO MANY CANCERS

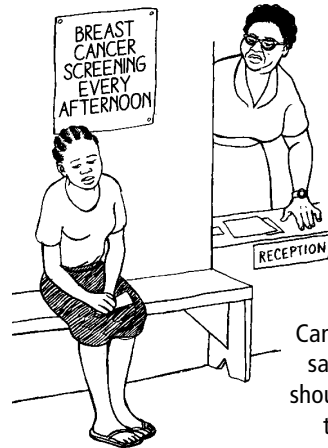
In general, these signs happen when cancer is advanced, so they are not good signs to rely on for finding cancers early.

- Weight loss
- Feeling tired all the time (fatigue)
- Severe pain that does not get better

If you think you might have cancer, find a health worker who can help you understand what options are available for treatment or care and where to go. Bring another person with you during appointments to help you ask questions and remember information.

Screening programs

Some cancers can be found early, before they cause any signs, through screening programs which test people at risk for certain types of cancer. Screening programs are most common for cervical cancer (page 12) and breast cancer (page 16) because it is possible to detect these cancers before they cause harm, and these cancers can often be successfully treated when found early.



Cancer screenings save lives. They should be available to everyone.

*The earlier a cancer is found,
the greater the chance for successful treatment.*

Who gets cancer?

We know a lot about what causes cancer, but not always why some people get cancer and others do not. Anyone can get cancer and chances increase as you get older. For only a few types of cancer (especially breast cancer), having one person in the family with that cancer makes it more likely that another person will too. But most cancers do not “run in the family.”

We do know:

- Magic spells, curses, or the evil eye do not cause cancer.
- Birth control methods (see Family Planning) do not cause cancer.
- Cancer is not a punishment for having done something wrong.
- Cancer does not spread from one person to another—it is impossible to get cancer from being near, spending time with, or taking care of someone who has cancer.

Some activities like cigarette smoking do cause cancer. Some chemicals that get into our bodies at work or through foods, products we use, and from air or water pollution cause cancer. There are ways to prevent cancers (see pages 23 to 25) but there are many things that cause cancer that individuals have little control over. Even when 2 people are exposed to the same harmful things, it does not mean they will both get cancer.

Because cancer and its causes can seem mysterious, people with cancer are sometimes avoided or treated poorly by others. This can make their illness worse. People with cancer need our love and support.

Cancer Treatments

Cancer treatments are used both to try to cure cancer, and also to help a person live longer with cancer and have a better quality of life.

The type of cancer treatment depends on the kind of cancer a person has, whether it is only in one part of the body or has spread to other parts, and how healthy the person is. Treatment methods may be used alone or in combination, or another treatment method might be used if the first does not work well enough. There are 4 main types of cancer treatments.

1. Surgery—removes cancer cells from the body.
2. Chemotherapy—uses medicines to kill cancer cells.
3. Radiation—uses beams of high energy to kill cancer cells.
4. Hormone therapy—uses medicines to stop hormones that make cancer worse.

While treatments may have uncomfortable side effects, they are often the only way to destroy the cancer, allowing the person to get well.

Some methods cost more than others, and some are not available everywhere. So unfortunately, inequality also determines treatment.

Just as cancer affects people differently, so do treatments for cancer. For example, some people get bad side effects while others tolerate treatment better. Or the same treatment may be effective in fighting one person's cancer, but may not work so well for someone else. Treatments affect people's feelings and mental health differently too.

Remission

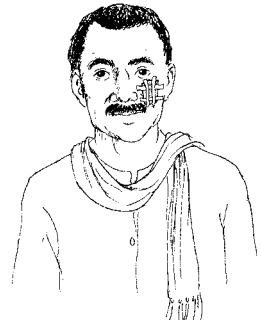
When cancer treatment is successful, the cancer is no longer detected in the body. The word "remission" is used instead of cure, because there is still a chance that the cancer may return later. A person can be in partial remission when treatment has stopped the cancer from growing, but the tumor is still there.

You will need regular checkups after cancer treatment. How often depends on the kind of cancer.

Surgery

When cancer is found in only one part of the body, it may be possible to successfully remove it through surgery. Sometimes small cancers can be cut out in a local health center. Other cancers require hospital stays for surgery and the person will need more time to recover.

Sometimes surgery is combined with chemotherapy or radiation to kill any remaining cancer that was not removed by surgery.



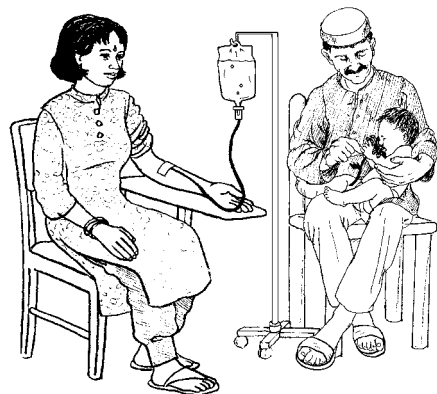
Chemotherapy

Some cancers can be treated with medicines. This is called chemotherapy. Chemotherapy medicines are often expensive although many have become much more affordable in recent years. National health programs should make these medicines available so more people can be treated and survive cancer.

Chemotherapy can be used to:

- stop the cancer from spreading to other parts of the body.
- slow the cancer's growth or shrink the cancer.
- kill the cancer.

Sometimes chemotherapy is the only treatment needed, but often it is used in combination with another treatment method. For example, chemotherapy may be used to shrink a tumor to make it easier to remove with surgery. Or it may be used after surgery or radiation to kill any cancer that remains.



Chemotherapy medicines come in different forms. They may be pills or liquid taken by mouth. Most often, chemotherapy medicines are given in the vein (IV). It is also common to use more than one chemotherapy medicine.

How often chemotherapy is needed, and for how long, depends on the kind of cancer and the chemotherapy medicine. It also depends on how your body reacts to the treatment, which can vary from person to person. Chemotherapy can be given daily, weekly, or monthly, but there are usually breaks between treatment cycles to allow your body to rest and recover.

Chemotherapy is good at killing cancer cells, but it also affects healthy cells. Healthy cells can usually recover, but chemotherapy can be hard on the body. Chemotherapy commonly causes uncomfortable side effects:

- Nausea (see Helping reduce nausea, page 8).
- Irritation inside the nose and mouth. There might be redness, sores, and sometimes burning pain in the mouth and throat. The person's sense of taste may change, and food can taste like metal or overly bitter or sweet. To reduce mouth sores, rinse your mouth several times a day with a mixture of: 1 cup of safe or boiled water cooled to just warm, 1/4 teaspoon baking soda, and 1/8 teaspoon salt. Then rinse with clean water.

- Tiredness. Rest when you need to. A 15-minute walk every day may give you more energy. Drinking plenty of water and other liquids can help.
- Hair loss. Chemotherapy kills cancer and other fast-growing cells, including hair cells. Hair will grow back when treatment ends.

Side effects may get worse a few days after treatment, but they all get better with time.

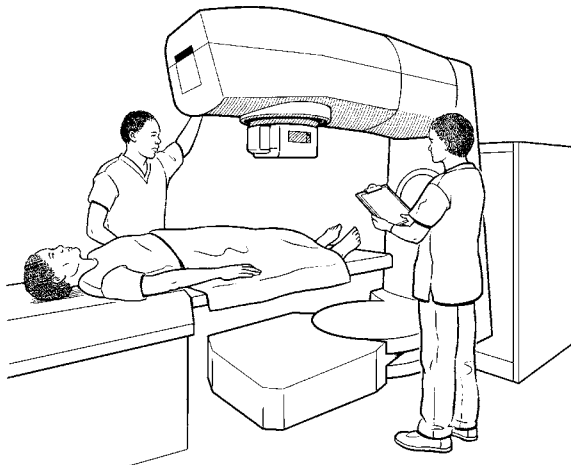
Take care of yourself during chemotherapy treatment:

- Rest when you need to.
- Eat healthy foods (see Good Food Makes Good Health).
- Avoid alcohol, which may affect the chemotherapy drugs and your liver.

Radiation (radiotherapy)

Like chemotherapy, radiation kills cancer cells and other fast-growing cells. Radiation may be used to remove the cancer, or to slow the growth of cancer. Radiation may be used alone or in combination with surgery or chemotherapy.

Radiation machines send a beam of high energy to kill cancer cells. Radiation may be a good treatment when the cancer is found early, before it has spread to other areas in the body (metastasized). This is because, unlike chemotherapy, radiation is targeted to a specific area and does not affect the whole body. Radiation treatments may rid the body of cancer temporarily or permanently.



A radiation treatment is not painful. You will lie on a treatment table underneath the radiation machine for about 15 to 30 minutes. The number of treatments and how often you receive them depend on the kind of cancer and the size of the tumor.

Common side effects of radiation:

- Tiredness. Rest when you need to. A 15-minute walk every day may give you more energy. Drinking plenty of water and other liquids can help.
- Loss of appetite. It may be easier to eat many small meals rather than a few large ones. If eating is painful, try soups or soft foods that are easy to eat.
- Skin changes. The skin over the area that was treated may become pink or darker in color. It also may begin to hurt, feel burned, dry or itchy, show mild swelling, or develop a rash or blisters.
- Nausea (see Helping reduce nausea, page 8).

Side effects will go away with time.

Take care of yourself during radiation treatment:

- Rest when you need to.
- Eat healthy foods like fresh fruits and vegetables, protein foods, and whole grains (see Good Food Makes Good Health).
- Care for the skin in the area that was treated. Gently clean the skin every day. Avoid anything that may irritate the skin, such as tight clothing, powder, or perfumes.
- Protect your skin from the sun by wearing a hat and loose clothing that covers your entire body.

Hormone therapy

Medicines that affect the body's hormones can cause a tumor to shrink or slow cancer growth. This is called hormone therapy. These medicines usually come as pills, but some are injected. Hormone therapy can be combined with one or more of the other common cancer treatments: surgery, chemotherapy, or radiation.

Possible side effects of hormone therapy:

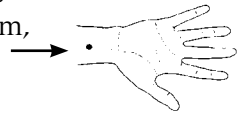
- Tiredness
- Weight gain
- Memory problems
- Changes in mood or depression
- Suddenly feeling very hot, and sweating
- Lack of desire for sex



Helping reduce nausea

Feeling nauseous can be a side effect of chemotherapy or radiation treatments. Besides making you feel bad, if nausea stops you from eating, you will not get enough nutrition. Your clinic may have medicines to reduce the nausea. Some people need to try different medicines before they find one that works for them. Also try these other ways to reduce nausea and to feel better on the days and weeks you have the treatments.

- Eat crackers, dry bread, dry tortillas, dry chapatis, or other grain food to calm your stomach. Avoid any foods that make you feel worse, especially fried or spicy foods.
- Eat many small meals instead of 2 or 3 larger ones, and take small sips of liquid often. Drinking more water than usual during the day will help.
- Sit up for a while right after eating instead of lying down.
- Use acupressure to relieve nausea. Press on the spot 3 fingers above the wrist between the 2 tendons on the inside of the arm, moving your finger in small circles. Press firmly but not hard enough to hurt. If acupressure is going to help, it will start to feel better in a few minutes.
- Drink mint or ginger tea. To make mint tea, put a teaspoon of mint leaves in a cup of boiled water. Let the tea sit for a few minutes before drinking. To make ginger tea, boil crushed or sliced ginger root in water for at least 15 minutes.
- Where marijuana is legal, some people use it to lessen nausea or make you feel like eating.



On treatment days, some people eat a small snack before treatment. Others find that eating or drinking right before or after treatment makes them feel sick so they avoid this. During treatment, try chewing a slice of fresh ginger if nausea starts. After treatment, wait at least 1 hour before you eat or drink.

Other cancer treatments

There are many other methods that people use to try to cure cancer or to help ease the effects of cancer. These include spiritual healing, hypnosis, meditation, herbal remedies, special diets, exercise, acupuncture, and massage. Often these methods help people receiving chemotherapy or radiation because they help the body recover faster and reduce side effects from cancer or cancer treatment. Talk with a health worker about which methods go well together. These methods also may lessen the anxiety or depression that is common for people with cancer so they can make you feel a lot better. And they can help a person feel more comfortable if he is dying from cancer, no longer seeking treatment, or chooses not to get other treatment. None of these methods has been proven to cure cancer when used by itself.

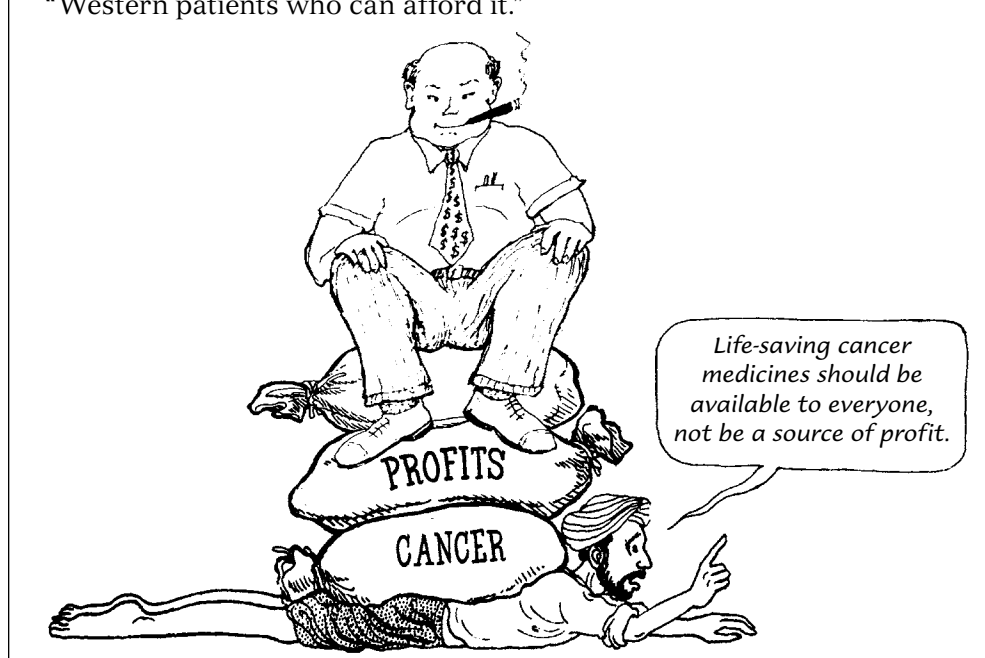
Unfortunately, there are people, including doctors, who take advantage of the hope or desperation of people with cancer and claim they have special or secret treatments to cure cancer. Sadly, because of these false promises, people waste money or delay getting a treatment that would help them more.

Cancer and Inequality

Cancer is a difficult problem for everyone, but it is worse for people who are poor. People who are poor or marginalized are more likely to be exposed to things that cause cancer because they live where pollution is worse. They work in more dangerous jobs, and they are subject to more stress. Eating a variety of good food (fresh fruits and vegetables, protein, and whole grains) can help prevent cancer, but some people cannot afford to eat well. And poor people often cannot afford or do not have access to the screenings, medicines, and health services that could find and treat their cancers.

For all these reasons, we say that poverty and inequality also cause cancer.

Drug companies that develop medicines for cancer are often not interested in the health of the people, but in making money. In 2014, the head of the Bayer pharmaceutical company said their new, very expensive cancer medicine was not for people in India, but for “Western patients who can afford it.”



Common Cancers

Each type of cancer is different, with different causes, signs, and options for treatment. Some cancers are easy to prevent and treat, and some are deadly. Even in places where people live in poverty, many types of cancer can and should be treated.

Lung cancer

SIGNS

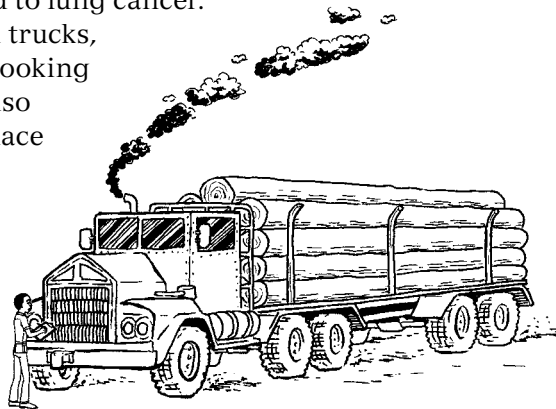
- Cough
- Coughing blood
- Chest pain, usually on one side
- Difficulty getting enough breath

Once someone has these signs, lung cancer is usually very advanced.

Lung cancer is the most common cancer, and it is also one of the most preventable. Its cause is usually smoking, and no matter how long you have smoked, quitting smoking at any time decreases your chances of getting lung cancer. Cigarette smoking also causes other cancers. A person living in a home with someone who smokes or who works where people smoke will also be harmed, even if she doesn't smoke herself.

Other types of smoke also lead to lung cancer. For example, diesel exhaust from trucks, factory smoke, and smoke from cooking fires. If you smoke **and** you are also exposed to smoke in your workplace or home, your chances of getting lung cancer are higher.

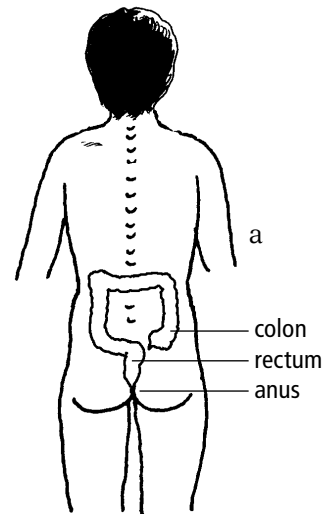
Lung cancer is usually deadly. The best way to prevent lung cancer is to quit smoking. For help, see Drugs, Alcohol, and Tobacco (in development).



Colon and rectal cancers

With these 2 cancers of the lower digestive system, you are more likely to get them if other close family members have them. They are also more common in people who already have another kind of bowel disease, such as sores inside the bowels (ulcerative colitis). Some clinics screen for these cancers by taking a sample of person's stool and testing it for traces of blood (fecal occult blood test).

These cancers happen less in men and women who eat vegetables, fresh fruit, whole grains, and other foods with fiber every day. (See *Good Food Makes Good Health*, page 11, for more on fiber.) Drinking less alcohol and not smoking also protect against these cancers.



SIGNS

- Black or bloody stool
- Belly (abdominal) pain
- A change in how you normally pass stool: increasing or decreasing frequency, or more diarrhea or constipation

Anemia can also be a sign (see *Good Food Makes Good Health*, page 8). A feeling of weakness, and weight loss are signs if the cancer is more advanced.

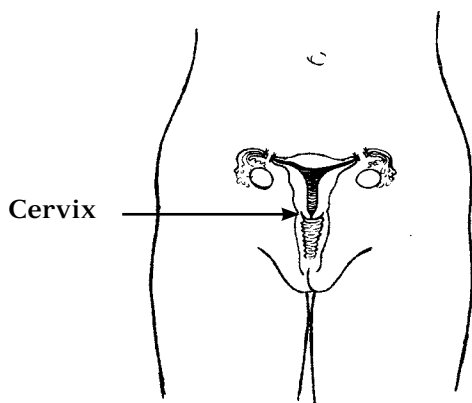
TREATMENT

If found early, these cancers can be treated with chemotherapy or removed with surgery. After surgery on the bowel, sometimes a person may need a temporary or permanent colostomy. A colostomy is a surgery that allows the person to pass stool into a container through a tube inserted in the belly. As surgery techniques improve, colostomies are less common.

Cervical cancer

When cancer affects the main part of the womb (uterus), it is called uterine cancer. When cancer affects the opening of the womb, it is called cervical cancer. Cervical cancer is a very common, slow-growing cancer that is very treatable if found early. And with good health care programs, it could be prevented altogether.

HPV, a common virus passed through sexual contact (see Genital Problems and Infections – in development), is the main cause of cervical cancer. HPV is so common that most men and women get it eventually. Only some types of HPV lead to cancer.



A vaccine against HPV prevents most of the cancer-causing types of this virus (there are many types). A vaccination program for all girls and boys in your community can greatly reduce the number of women who will get cervical cancer, but it will not eliminate this cancer altogether. Screening so it can be found and treated early is most important. Both screening and treatment for cervical cancer are easy to do and very successful.

Cervical cancer is common in women who have HIV because their immune systems cannot fight infections well. It is very important for women with HIV to get tested for cervical cancer regularly—once a year, if possible.

SIGNS

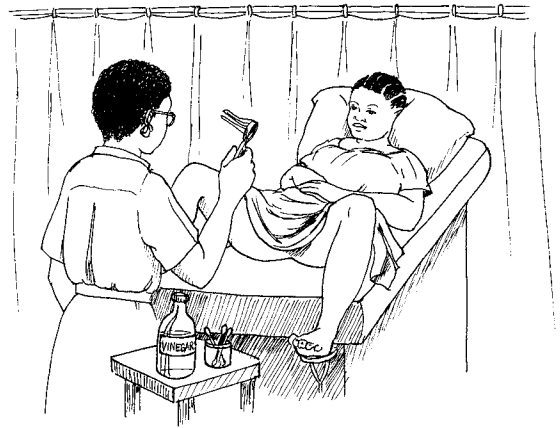
At first, cervical cancer has no noticeable signs. Later, there can be bleeding from the vagina during sex, or any time outside of menstrual bleeding. If the cancer is not treated, it may cause pain—first in the lower back or pelvis, and later down the backs of the legs.

TESTING

Cervical cancer is rarely deadly when it is found early. Screening programs that regularly test all women are easy to set up, even at very small community clinics. Each of the 3 different tests for cervical cancer has its benefits:

- **Visual inspection or vinegar test**, (looking at the cervix after painting it with vinegar or Lugol's iodine). This is very low cost, does not require a laboratory, and is easy to learn how to do. Sometimes healthy cells appear to be abnormal, so if that happens other tests are used to make sure of the result. To learn how to do visual inspection, see *A Book for Midwives*, available from Hesperian.

- **The Papanicolaou test, or Pap smear.** Pap tests are very reliable but might not detect every case. Therefore they should be repeated every 3 years or so.
- **The HPV test.** This tests for the HPV virus that leads to cervical cancer. It may be given by itself, done along with the Pap test, or after a Pap shows there could be cancer.



Tests for cervical cancer may be a little uncomfortable, but are not painful.

TREATMENT

Cervical cancers caught early are among the most successfully treated. Some treatments are so easy and inexpensive they can be done in a clinic by a trained health worker, right after the examination that detected cancer.

- **Cryotherapy** freezes part of the cervix using carbon dioxide or nitrous oxide gas. Freezing destroys abnormal cells and prevents them from developing into cancer. Cryotherapy is not painful and is very safe. Cryotherapy is low cost and is easy for health workers and midwives to learn how to do. See *A Book for Midwives*, available from Hesperian.
- **Loop electrosurgical excision procedure (LEEP)** uses a metal loop with electricity running through it to remove the area of the cervix that has abnormal cells. LEEP is needed if the area of abnormal cells on the cervix is large, or extends inside the opening of the cervix.
- **Cold knife conization** uses a surgical knife to remove a larger part of the cervix if the area of the pre-cancer is very large. It is done by a specialist. Cold knife conization may make it more likely for a woman to have a miscarriage or other complications during future pregnancies.

If the cancer is advanced, it might be necessary to remove the uterus through surgery (hysterectomy). This makes pregnancy impossible, but it makes surviving the cancer very likely.

Bladder cancer

There are 3 common causes of bladder cancer:

- Smoking.
- Exposure to toxic chemicals, usually at industrial work (in factories and mines). For example, bladder cancer is more common in workers who manufacture or work with metals, paints, rubber, leather, fabric, carpets, cement, and plastics. It is also more common in miners, electrical workers, and others who work with chemicals and their fumes.
- Schistosomiasis (see Other Serious Illnesses, in development). In places where this disease is widespread, it is the most common cause.

SIGNS

- Blood in the urine.
- Having to pass urine very urgently or more often.
- Pain on one side of the lower back, just above the middle of the pelvic bone, or in the perineum (between the anus and the vagina or testicles).
- Urinating may be difficult, but most people with bladder cancer have no pain when they urinate.

These are all common signs of other bladder problems too. See Difficulties with Urinating (in development).

TREATMENT

Bladder cancer is usually treated with surgery to remove a tumor or the part of the bladder that has cancer. Chemotherapy may also be used to shrink the tumor before surgery, or to prevent the cancer from returning after surgery. If the tumor is very large, the entire bladder may need to be removed by surgery.

Bladder cancer can come back. Regular follow-up tests are needed after treatment to make sure the cancer has not returned.

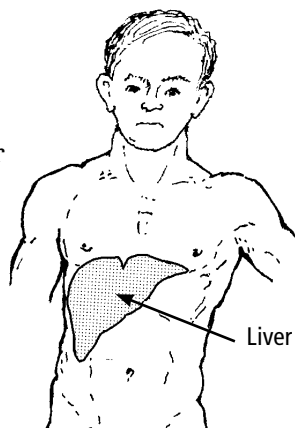
Liver cancer

Liver cancer is particularly serious and is difficult to treat. It is most common in men.

SIGNS

There are usually no signs. However, almost everyone with liver cancer has had hepatitis or cirrhosis (liver scarring from alcoholism or disease), so the person with liver cancer may have signs of liver disease:

- Jaundice (yellow color to the skin or eyes)
- Pain in the upper right abdomen
- Swelling belly
- Feeling tired all the time (fatigue)



PREVENTION

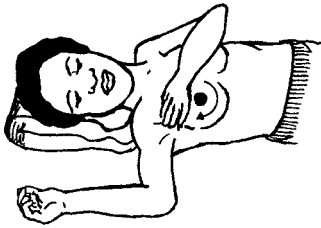
This cancer is difficult to treat, but the hepatitis B vaccine helps prevent many cases. For information on hepatitis, see *Belly Pain, Diarrhea, and Worms*, pages 17 to 19.

To prevent cirrhosis caused by alcohol, avoid drinking more than a glass or two of alcohol a day. If you already have liver disease, such as hepatitis, you can make liver cancer less likely by never drinking alcohol.

Breast cancer

Breast cancer is one of the most common cancers in women though men can have breast cancer too. When found early, breast cancer can be treated very effectively. Treatment may include surgery, radiation, chemotherapy, hormone therapy, or some combination of those.

Any person can learn to examine the breasts for any lumps or unusual signs. Cancerous lumps are usually hard, painless, jagged in shape, and unmoving under the skin. Check each breast separately. Further testing by x-ray (called mammography) or ultrasound can determine if a lump is likely to be cancer, but you will need a biopsy to be sure.



A thorough breast exam takes several minutes. The woman or her health worker systematically and firmly massages each point before moving to a new point. Feel for anything unusual such as a lump, thickening, or color change. Do this for the whole breast and under the arm.

There is not much to do to prevent breast cancer, although eating well, avoiding smoking and alcohol, and getting regular exercise helps. Breastfeeding also gives some protection.

Stomach cancer

SIGNS

- Belly pain
- Weight loss
- Difficulty swallowing
- A mass you can feel in the belly
- Black stool (can look like tar)



A common cause of stomach cancer is infection with *H. pylori*, the bacteria that causes most ulcers (see *Belly Pain, Diarrhea, and Worms*, page 12). While *H. pylori* increases the risk of stomach cancer, other things also make stomach cancer more likely, such as cigarette smoking, eating a lot of processed meats, red meats, fried food, and foods preserved in salt.

Most stomach cancers are difficult to treat successfully. It is much better to prevent this cancer. Eating fruits, raw vegetables, and whole grains every day gives some protection.

Prostate cancer

Men have a prostate gland, located just below the bladder, that grows larger as they age. Prostate cancer usually grows slowly and can take years to grow enough to cause any problems. As with other cancers, treatment for prostate cancer works best when the cancer is found early. Even prostate cancer that has spread can be treated successfully. Prostate cancer is common in men older than 65, and many older men who have prostate cancer live with it until they die, usually from other causes.

SIGNS

Prostate cancer may have no signs in its early stages. Most men don't know they have it until it is found during a medical exam.

The most common sign is problems with urinating, but this can also be caused by a non-cancerous enlarged prostate, common in older men.

Reasons to see a health worker:

- Difficulty starting or stopping the flow of urine
- Needing to urinate often, especially at night
- Pain or burning during urination
- Blood in your urine or semen
- Deep and frequent pain in your lower back, belly, hip, or pelvis

A blood test called the prostate-specific antigen (PSA) can help detect prostate cancer. A high PSA may mean prostate cancer, but it could also mean that you have an enlarged or infected prostate (see Difficulties with Urination, in development).

TREATMENT

How prostate cancer is treated (surgery, radiation, chemotherapy, hormone therapy, or a combination of these) will depend on the kind of cancer cells, if they have spread, your age and general health, and your preferences. Some prostate cancer grows so slowly that the only treatment is to have regular check-ups.

Skin cancer

Skin cancers are common among light-skinned people, and rare among dark-skinned people, but can happen to anyone. They happen most often to adults who had severe sunburns when they were children.

There are 2 main types. Non-melanoma skin cancer, the most common type, is easily treated because it grows slowly and can be cut out by a health worker. The other main type, called melanoma, is the most dangerous kind of skin cancer.







A non-melanoma cancer often looks like a slowly-growing red or pink bump, sore, or scab on the face or elsewhere on the skin. These should generally be cut out if they continue to grow because they can spread cancer inside the body.

Melanoma is a skin cancer that is fast growing and dangerous and should be treated right away. First the affected area is cut out. Other treatment may be needed if the cancer has spread to other parts of the body.

SIGNS OF MELANOMA SKIN CANCER

A melanoma looks different than a mole in one or more of these ways:

-  Has an uneven, unusual shape that isn't a circle or an oval
-  Has jagged or uneven edges
-  Has different colors in the same mole
-  Changes in size, color, or shape

PREVENTION

Protect children, especially fair-skinned children, with hats, clothes that cover arms and legs, and sunscreen lotion.

If you work outdoors, cover your skin and wear a hat.



Kaposi's sarcoma

A skin cancer that affects some people infected with HIV, Kaposi's sarcoma shows as red, brown, or purple-colored patches inside the mouth or anywhere on the body.

SIGNS:

Painless patches that look like swollen bruises around or inside the mouth, or anywhere else on the body. The patches rarely become infected or painful, unless they open.

TREATMENT:

See a health worker or doctor who is experienced with HIV. Antiretroviral medicines (ARVs) tend to prevent this cancer in people with HIV, and starting ARV treatment can keep it from getting worse. Sometimes Kaposi's sarcoma is treated with chemotherapy or with other medicines.

Cancer in Children

Cancer in childhood is uncommon. The most common cancers in children are leukemia (blood cancer) or a brain tumor. In general, childhood cancers are more easily treated and cured than adult cancers.

There are no signs that clearly show cancer in a child. Usually, the signs are vague, like ongoing weight loss, headaches with vomiting in the morning, lasting swelling or pain, lasting fevers, or unusual bruising or bleeding. All of these can be signs of other problems—some serious, some not. If a child has any lasting health problems, she should have a medical exam with a health worker.

Burkitt's lymphoma

Especially in parts of Africa, a common childhood cancer is Burkitt's lymphoma. It starts as a lump on the face, on the upper or lower jaw. Unlike mumps, or the swollen glands common with HIV, only one side of the face swells and it swells very quickly. It can double in size in one day. It is not painful, though very early on it may cause discomfort. The teeth near the swelling are usually displaced or loosened. It can also be mistaken for a tooth abscess.



Burkitt's lymphoma is treated with chemotherapy. When treatment starts early, it is usually very successful.

If You Have Cancer

Finding out you have cancer is frightening to say the least. But there are some things you can do to help fight the cancer and feel better.

- If you think you have cancer, try to find a doctor or clinic that has experience with cancer. You may need more than 1 test to know for sure.
- If you are told you have cancer, ask the doctor about the disease. What happens to most people who have this type of cancer? What can you do to live longer or survive the cancer?
- Get treatment quickly. Many cancers can be successfully treated when caught early. What choices do you have about treatment? What are the side effects of the treatments?
- Talk to others who have cancer. They often have helpful advice and can be understanding listeners especially if they have had your kind of cancer and are doing well.
- Do not believe rumors or stories uninformed friends and family tell you. They are often untrue.
- Eating nutritious food keeps you stronger.
- Exercise daily — even a short walk. Find ways to relax, such as yoga, meditation, or just spending a few minutes quietly by yourself.
- Find people who can help you. Cancer and its treatments can cause tiredness, nausea, and pain. Cancers can be disabling and make it hard to get around or work. A community health worker may know of helpful resources.

Promoting general health and well-being must be central to any cancer treatment.

Learning you have cancer, undergoing treatment, and accepting that you are sick can be very difficult emotionally. Feelings of hopelessness or worry are normal. Care for the mental and emotional parts of being sick are just as important as any physical or drug treatment. There are many ways to get this help.

- Spend time with loved ones.
- Talk about your feelings and fears with someone you trust.
- Pray or participate in activities with your religious group.
- Continue activities that you enjoy.
- Relax with music, meditation, and gentle exercise.



For more on how to help with feelings of depression or anxiety, see *Mental Health* (in development).

How health workers help

Community health workers can learn about cancer prevention and treatment, and share that learning with others.

Help the person with cancer and the family:

- Help them feel they are not alone.
- Introduce them to other people who have had similar experiences.
- Support them to find healthy food, transportation, and help managing their home and children, maybe by involving community groups, churches, or government services.
- Keep a list of clinics, doctors, and organizations that help people with cancer in your region or country.
- Help the person with cancer manage her pain, discomfort, and fears.
- Help people with cancer and their families avoid those who would take their money and promise miracle cures that don't work or make people worse.



Work toward cancer awareness and prevention:

- Encourage people to learn the early signs of cancer and not to be afraid of getting tested or treated because doing so early is so important.
- Give classes to help people stop smoking.
- Vaccinate people against hepatitis B and HPV.
- Screen women for cervical cancer and for other cancers if screening is offered by health authorities.
- Seek training for yourself or other health workers to treat some kinds of cancer. Midwives can learn how to diagnose and prevent cervical cancer.
- Help people organize to keep chemicals and other pollution out of community water, land, and air.
- Motivate the community to help and treat people with cancer kindly, and not to blame them for their illness.

Easing the Severe Pain of Cancer

Cancer pain may be caused by the cancer itself or from a treatment. For example, people getting chemotherapy may have mouth pain.

As a cancer gets worse, the pain caused by the cancer can become very severe. Strong pain medicines (such as morphine or codeine) relieve pain best, and the dose of these medicines may have to be raised gradually from smaller to higher amounts to work well.

Because they can be habit-forming, strong pain medicines (narcotics) are often not available. Governments and even well-meaning health workers restrict their use out of fear of drug abuse and addiction. This causes needless suffering for those with cancer and other chronic illnesses. These medicines are listed on the World Health Organization's Model List of Essential Medicines, but more needs to be done to ensure they are available to people with cancer and others suffering severe pain. We should work against the stigma attached to these medicines, and recognize relief from pain as a human right.

Other ways to ease the pain of cancer or cancer treatments include acupuncture, massage, and physical therapy.

End of life care

There are cancers that cannot be cured, no matter where you live or how much money you spend. While it will not cure cancer, a positive attitude will help lift the spirits and improve the days of someone with cancer and her loved ones. Keeping a good attitude can help a person build the needed strength to get through each day, whether they are getting treatment or not.

For cancers that cannot be cured, eventually a time will come when it becomes clear that death is near. When this happens, help the person and those who love her come to an understanding about what is happening, and prepare. Remind her you will be there for her in living and in dying. She may need medication to reduce pain, and loving care to bring comfort and ease the transition to death. See *Caring for Sick People* (in development) for more about caring for someone as they die.



Much Cancer Can Be Prevented

Many different things may cause cancer, and usually there is no way to know if one particular thing was the cause of a person's cancer except for:

- **Lung cancer**, usually caused by smoking tobacco.
- **Cervical cancer**, usually caused by a viral infection (see page 12).

Most other cancers seem to come from a combination of exposures to certain harmful things.

While we cannot prevent all cancers, we can lower our risk of getting cancer by limiting the things that make cancers more common.

Avoid smoke and smoking

- Tobacco smoking is one of the main causes of cancer around the world. Smoking causes lung cancer and also cancers of the colon, bladder, and neck. It leads to heart attacks, strokes, lung infections, and ulcers, and when pregnant women smoke or breathe other's cigarette smoke, their babies are more likely to be sick or dangerously small. Stopping smoking makes cancer less likely for the smoker, no matter how old you are when you quit, and protects family and friends too. See *Drugs, Alcohol, and Tobacco* (in development) for more on how to stop smoking.
- Indoor cooking fires increase the chances of cancer and lung diseases. Building a no-smoke or low-smoke cook stove and venting smoke outside reduces the possibility of cancer for the whole family. See *A Community Guide to Environmental Health*, pages 359 to 364.
- Pollution from factories, cars, and trucks causes cancer. When people demand it and laws require it, they can be made to produce less smoke and less cancer.
- Work in a smoky environment is dangerous. If you and your co-workers can get your boss to improve ventilation, or at least provide you with filtered masks (respirators), your health will be better.





Drink less alcohol

Drinking more than a glass or two of alcohol a day makes several cancers more likely. Breast cancer, liver cancer, stomach and intestinal cancer, and mouth and throat cancer all may be related to drinking alcohol. Drinking less can also leave more money for food and other family needs. See *Drugs, Alcohol, and Tobacco* (in development) for more on how to stop drinking.

Avoid and treat infections

- *H. pylori*, the bacteria that causes stomach ulcers, can lead to stomach cancer if it is not treated. If you have a stomach ulcer that keeps coming back, treat it with the medicines described on pages 13 and 53 of *Belly Pain, Diarrhea, and Worms*.
- Hepatitis B and C can lead to liver cancer. There is a vaccine for hepatitis B, and hepatitis C can be prevented by using condoms during sex and not reusing needles for injections. See pages 18 to 19 in *Belly Pain, Diarrhea, and Worms* for more on hepatitis.
- HPV (human papilloma virus, a sexually transmitted infection, see page 12) causes cervical cancer. There is a vaccine to protect against HPV.
- HIV makes certain cancers more common, especially Kaposi's sarcoma, non-Hodgkin's lymphoma, and cervical cancer. Prevent HIV by using condoms during sex and not reusing needles.

Good food makes good health

Eating habits can contribute to or protect against cancer. Eating whole grains, and fresh vegetables and fruits every day helps protect you from many cancers and other illnesses. Storing grains and beans in a ventilated space prevents spoilage by a mold that is one cause of liver cancer. In *Good Food Makes Good Health*, see page 13 for how to eat well even when you have little money, and pages 31 to 32 for safe ways to store harvests.

Access to healthcare

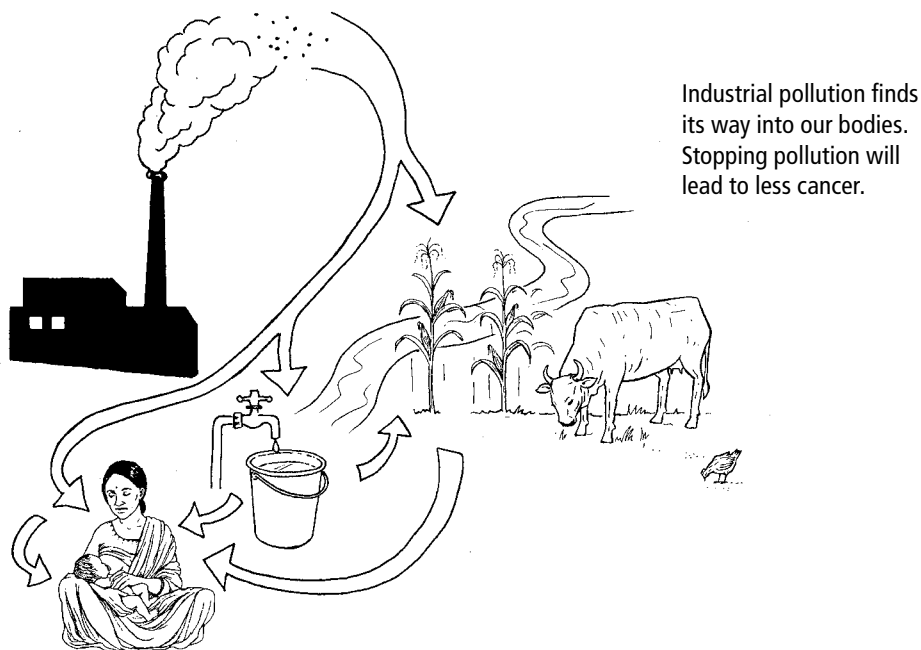
When people have access to good quality healthcare, they have better health and more cancer is prevented. Access to healthcare also helps to find cancers early which makes treatment more successful.

Avoid exposure to chemicals

Thousands of chemicals are made and used in industry and agriculture, and then released into the air we breathe, the water we drink, and the food we eat. Some of these chemicals are harmful to our health, including some which cause or contribute to cancer. Unfortunately there are no laws that say a chemical must be proven to be safe before it can be used, so we often find out too late about the dangers of chemicals. The increased use of chemicals around the world is one reason rates of cancer are increasing.

Important ways to protect against chemicals and cancer include:

- Assume a chemical is dangerous until it is proven safe.
- Avoid using pesticides and chemical cleaners, or reusing any containers chemicals may have been stored in.
- Don't burn plastics or other trash (this releases toxic fumes into the air we breathe).
- Insist that governments make sure power plants and factories handle their waste safely and do not cause pollution. For more on organizing your community against chemical exposure, see *A Community Guide to Environmental Health*, also available from Hesperian.



When we value human lives more than profits, cancer will be reduced.
