

WHAT IS CANCER?

Cancer is a group of more than 100 related diseases that begin in cells, the body's basic building blocks. The body is made up of many types of cells. Normally, cells grow and divide to produce more cells as they are needed to keep the body healthy. Sometimes, this process goes wrong. Then, new cells form when the body does not need them, and old cells do not die when they should.

The extra cells form a mass of tissue called a growth or tumor. Not all tumors are cancerous; tumors can be benign or malignant.

Benign tumors are not cancer. They can often be removed through a minor surgery and in most cases they do not come back. Cells in benign tumors do not spread to other parts of the body. Most important, benign tumors are rarely a threat to life.

Malignant tumors are cancer. Cells in malignant tumors are abnormal and divide without control or order. Cancer cells invade and destroy the tissue around them.

Some cancers do not form tumors. For example, leukemia is a cancer of the bone marrow and blood.

WHAT CAUSES CANCER?

Scientists have learned that cancer is caused by changes in genes that normally control the growth and death of cells. We do not know the cause of all types of cancer. However, some lifestyle and environmental factors can change normal genes into genes that allow the growth of cancer. Many gene changes that lead to cancer are the result of tobacco use, diet, exposure to the sun, or exposure to carcinogens (cancer-causing substances) in the environment. Some gene changes are inherited (from one or both parents). However, having an inherited gene change does not always mean that the person will develop cancer; it only means that the chance of getting cancer is increased. Scientists continue to examine the factors that may increase or decrease a person's chance of developing cancer.

Cancer is not contagious. A person cannot catch cancer from someone who has it. An injury or bruise does not cause cancer.

CAN CANCER BE PREVENTED?

Although there is no guaranteed way to prevent cancer, people can reduce their risk (chance) of developing some types of cancer by:

- > not using tobacco products, such as cigarettes or chewing tobacco
- > choosing foods with less fat and by eating more vegetables, fruits and whole grains
- > exercising regularly and maintaining a healthy weight
- > avoiding the harmful rays of the sun, using sunscreen and wearing clothing that protects the skin
- > talking with a doctor about the possible benefits of taking drugs that may reduce the risk of certain cancers

People can help protect themselves by avoiding risk factors whenever possible and by getting regular checkups so that if cancer develops, it is likely to be treated early. Treatment is often more effective when cancer is detected early. Screening exams can help to detect many types of cancer at earlier stages.

WHO GETS CANCER?

Anyone can get cancer, but most cancers occur in adults over the age of 55. There are over 10.5 million cancer survivors living in the United States today.

Cancer is the second leading cause of death in this country. However, improvements in cancer detection, diagnosis and treatment have increased the survival rate for many types of cancer.

About 77% of all cancers are diagnosed in people over the age of 55.

About .014% of children under the age of 15 are diagnosed with cancer each year in the United States. This is only about 14 out of every 100,000 children.

About 64% of all people diagnosed with cancer will be alive 5 years after diagnosis.

WHAT TYPE OF CANCER IS THE MOST COMMON?

Cancer of the skin is the most common of all cancers. It accounts for about half of all cancers. Sunlight exposure is by far the most significant risk factor for several types of skin cancer. Preventive behaviors such as avoiding sun exposure at peak hours of the day (10 am to 2 pm), wearing protective hats and clothing, and proper use of sunscreen are recommended to reduce the harmful effects of excessive sun exposure.

WHAT TYPE OF CANCER CAUSES THE MOST DEATHS?

Lung cancer is the number one cancer killer in the United States among both men and women. Cigarette smoking causes 82% of these deaths as well as deaths from several other types of cancer, other lung diseases, and heart disease. Smoking is responsible for more than 400,000 deaths each year in the United States.

WHAT ARE SOME OF THE COMMON SIGNS AND SYMPTOMS OF CANCER?

Cancer can cause a variety of symptoms or side effects. Possible signs of cancer include the following:

- > new thickening or lump in the breast or any other part of the body
- > new mole or an obvious change in the appearance of an existing wart or mole
- > a sore that does not heal
- > nagging cough or hoarseness
- > changes in bowel or bladder habits
- > persistent indigestion or difficulty swallowing
- > unexplained weight loss or weight gain
- > unusual bleeding or discharge

When these or other symptoms occur, they are not always because of cancer. It is important to see a doctor about any of these symptoms or about other physical changes. Only a doctor can make a diagnosis. A person with these or other symptoms should not wait until they feel pain to go to the doctor, because early cancer usually does not cause pain.

HOW IS CANCER TREATED?

Cancer treatment can include surgery, radiation therapy, chemotherapy, hormone therapy and biological therapy. The doctor may use one type of treatment or a combination of treatments, depending on the type and location of the cancer, whether the disease has spread, the patient's age and health, and other factors.

Surgery is an operation to remove cancer.

Radiation therapy (also called radiotherapy) uses high-energy rays to kill cancer cells in a targeted area of the body. Radiation treatments are painless but may cause side-effects.

Chemotherapy is the use of drugs that kill cancer cells throughout the body. Healthy cells can also be harmed. The doctor may use one drug or a combination of drugs.

Hormone therapy is used to treat certain cancers that depend on hormones for their growth. It works by keeping cancer cells from getting or using the hormones they need to grow. Another type of hormone therapy is a surgery to remove organs that make hormones. For example, the ovaries may be removed to treat breast cancer, or the testicles may be removed to treat prostate cancer.

Biological therapy uses the body's immune system to fight disease and to lessen some of the side effects of cancer treatment.

WHAT ARE THE SIDE EFFECTS OF CANCER TREATMENT?

Because treatment for cancer can also damage healthy cells and tissues, it often causes side effects. Cancer treatment may cause fatigue, poor appetite, nausea and vomiting, diarrhea, and mouth and lip sores. Hair loss is a common side effect of chemotherapy; however, not all chemotherapy drugs cause hair loss. The reason people lose their hair is that the chemotherapy drugs target rapidly growing cells. Because hair cells are also rapidly growing, some people will lose their hair when they undergo chemotherapy. Many side effects gradually go away after treatment ends.

Patients and doctors generally discuss the treatment options, and choose a treatment plan that will kill the cancer and reduce possible side effects.

— Adapted from the National Cancer Institute, www.cancer.gov and from *Cancer Facts & Figures 2007*, American Cancer Society, cancer.org