The most consistent finding, over decades of research, is the strong association between tobacco use and cancers of many sites. Hundreds of epidemiologic studies have confirmed this association. Further support comes from the fact that lung cancer death rates in the United States have mirrored smoking patterns, with increases in smoking followed by dramatic increases in lung cancer death rates and, more recently, decreases in smoking followed by decreases in lung cancer death rates in men.

Additional examples of modifiable cancer risk factors include alcohol consumption (associated with increased risk of oral, esophageal, breast, and other cancers), physical inactivity (associated with increased risk of colon, breast, and possibly other cancers), and obesity (associated with colon, breast, endometrial, and possibly other cancers). Observational evidence shows associations between amount of alcohol consumption, physical inactivity, and obesity and increased incidence of certain cancers. More research is needed to determine whether these associations are causal and thus whether avoiding these behaviors would actually reduce cancer incidence. Other lifestyle and environmental factors known to affect cancer risk (either beneficially or detrimentally) include certain sexual and reproductive practices, the use of exogenous estrogens, exposure to ionizing radiation and ultraviolet radiation, certain occupational and chemical exposures, and infectious agents.

Food and nutrient intake have been examined in relation to many types of cancer. Case-control epidemiological studies have suggested an association between high fruit and vegetable consumption and reduced risk of various cancers. The quality of this evidence, however, has been questioned, and prospective cohort studies exploring this question have shown inadequate evidence to conclude that such an association truly exists. Contrary to expectation, randomized trials found no benefit of beta-carotene supplementation in reducing lung cancer incidence and mortality; risk of lung cancer was statistically significantly increased in smokers in the beta-carotene arms of 2 of the trials. Similarly, randomized controlled trials have found no reduction in risk of subsequent adenomatous polyps of the colon in individuals who have had polyps previously resected taking dietary fiber supplements compared with those receiving much lower amounts of supplemental wheat bran fiber. Ecologic, cohort, and case-control studies have found that increased consumption of fat and red meat is associated with increased risk of colon cancer. A randomized controlled trial of dietary modification to lower fat consumption in postmenopausal women, however, showed no reduction in colon cancer. Likewise, there was no benefit of the low-fat diet on all cancer mortality, overall mortality, or cardiovascular disease. A large randomized trial is currently underway to investigate whether men taking daily selenium or vitamin E or both experience a reduced incidence of prostate cancer in comparison with men taking placebo pills.

## Diagnosis

The rates of newly diagnosed cancer cases (incidence) are one way to measure progress against cancer. The lower the rates, the better.

Another important measure is the proportion of cancers diagnosed at a late stage. The stage of a cancer shows how far the disease has progressed. The earlier the stage at diagnosis, the better the chances for cure. Downward trends in the proportion of late cancer diagnoses are a sign that screening is working for the cancers for which early detection methods are available.

This section of the Cancer Trends Progress Report - 2005 Update provides data on the rates of new cancers, based on the NCI Surveillance, Epidemiology, and End-Results (SEER) Program, by cancer site and by racial and ethnic group. Also included are data on the proportion of cancers diagnosed at a late stage for five of the major cancer sites where cancer screening has been shown or has been evaluated to make a difference in outcomes. Cancer sites include: female breast, colon, rectum, cervix, and prostate.

Source: [www.cancer.gov](http://www.cancer.gov)

## Cancer: Choosing a Treatment Program

What are the different kinds of cancer treatment?

The three most common types of cancer treatment are surgery, radiotherapy and chemotherapy. Treatment is aimed at removing the cancer cells or destroying them in the body with medicines or other agents.

Surgery can be very successful in treating some kinds of cancer, but it isn't an option for all people. If the cancer is in the form of a malignant tumor and the tumor is in one place (localized), it may be possible to safely "cut out" the tumor and any surrounding affected tissue. Surgery may not be possible if the cancer has spread to other areas of the body or if the tumor cannot be removed without damaging vital organs, such as the liver or brain.

Radiotherapy uses radiation — in the form of a special kind of x-ray, gamma rays or electrons — to damage cancer cells so that they can't multiply. There is usually no pain during therapy. Radiotherapy may sometimes be the only treatment needed, or it may be used with other therapies, such as surgery. A combination of surgery and radiotherapy may be used for tumors that grow in one place.

Chemotherapy uses medicines to attack the cancer cells. Just the word "chemotherapy" can cause a lot of fear because the side effects can be severe. However, not all people experience severe side effects. The side effects of chemotherapy can often be reduced with other medicines.

Chemotherapy is usually used when the cancer has spread to other areas in the body. Chemotherapy can also be used in combination with surgery and radiation. Sometimes the tumor is surgically removed and then chemotherapy is used to make sure all the cancer cells are killed.

Another kind of treatment is biological therapy. This treatment uses proteins to trigger the body's immune system to produce more white blood cells (or lymphocytes). Two lymphocytes that can attack and kill cancer cells are the T-cell and the B-cell. The proteins boost the ability of the T-cell and B-cell lymphocytes to kill cancer. Biological therapy can also be used in combination with surgery, radiation therapy or chemotherapy.

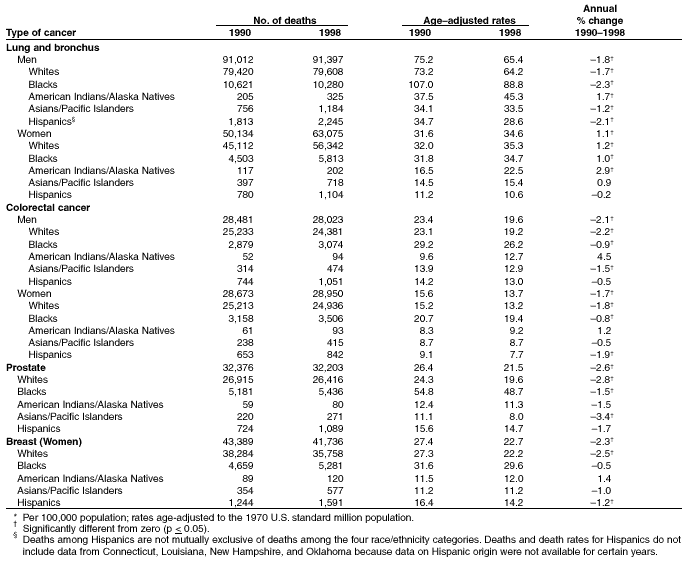
Hormone therapy is sometimes used to treat breast or prostate cancer. The hormone estrogen can make breast cancer tumors grow faster. Similarly, the hormone testosterone can make cancerous tumors in the prostate grow faster. Drugs that contain other hormones may be used to block the effects of estrogen and testosterone. In other cases, surgery to remove the ovaries or the testicles may be used. Removing these organs reduces the amount of estrogen or testosterone in the body.

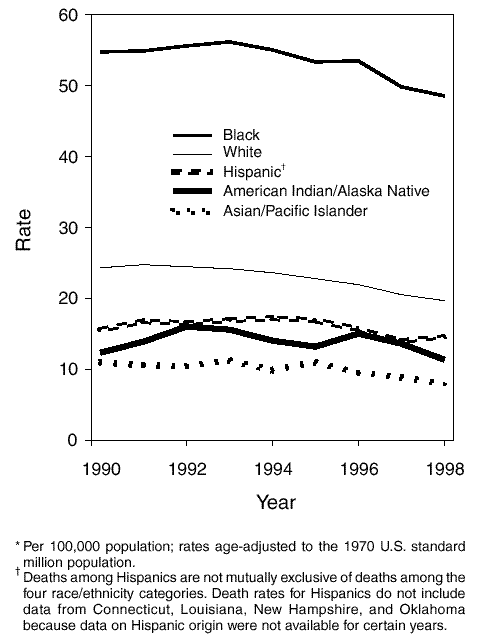
Hormone therapy is often used in addition to chemotherapy or radiotherapy.

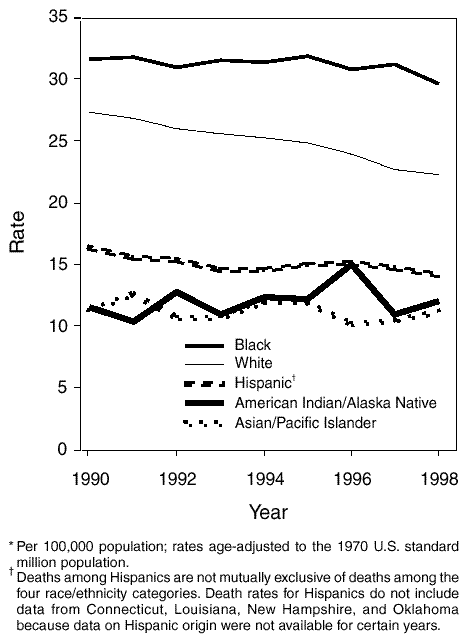
Other specialized treatments may be available. Your doctor may talk to you about these treatments if they are an option.

Source: <http://familydoctor.org>

## Statistics







## Tobacco and Cancer

Smoking damages nearly every organ in the human body, is linked to at least 10 different cancers, and accounts for some 30% of all cancer deaths. And it costs billions of dollars each year. Yet one in four Americans still light up. If you or someone you love uses tobacco, here's what you need to know about how tobacco kills, and how to get the help you need to quit.

## Sun Safety

A sunburn will fade, but damage to deeper layers of skin remains and can eventually cause cancer. That's why sun-safe habits should begin in childhood and last a lifetime.

## Food and Fitness

Eating right, being active, and maintaining a healthy weight are important ways to reduce your risk of cancer—as well as heart disease and diabetes. Learn the American Cancer Society's guidelines for diet and activity and find tips for a healthy lifestyle and community.

## Early Detection

If you can't prevent cancer, the next best thing you can do to protect your health is to detect it early. Recognizing symptoms, getting regular check-ups, and performing self-exams are just a few ways you can do this.

Source: [www.cancer.org](http://www.cancer.org)