

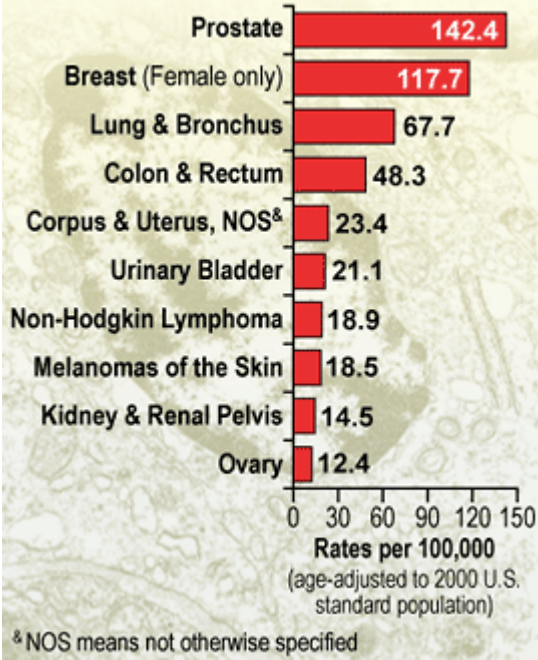
# Cancer

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According to the American Cancer Society, “cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells.” These diseases are caused by both external factors and internal factors. External factors include tobacco, chemicals, radiation, and infectious organisms, whereas internal factors include inherited mutations, hormones, immune conditions, and mutations that occur from metabolism. These factors may work independently or together to change normal cells into cancer cells, a process called carcinogenesis. Time, ten or more years, can pass between exposure to external factors and the first signs of cancer.

If the spread of abnormal cell growth is not controlled, then death may result. The American Cancer Society estimates that 565,650 Americans are expected to die of cancer, which is equivalent to about 1,500 per day. In 2004, the National Cancer Institute estimated that 10.8 million Americans were alive that had cancer and are now cancer-free, or were undergoing treatment. More than 1.4 million people were expected to be diagnosed with cancer in 2008.

## Top 10 Cancer Sites, Male and Female



Certain types of cancer can be prevented, particularly those caused by external factors. All cancers caused by smoking and tobacco use can be prevented. A third of the expected cancer deaths will be related to overweight, obesity, physical inactivity, and nutrition, which can be prevented. Some cancers caused by infectious agents can be prevented by behavioral changes, vaccines or antibiotics.

Screening examinations to detect and remove precancerous growths can be scheduled regularly to catch the cancer at the early and most treatable stages. Cancers of the breast, colon, rectum, cervix, prostate, oral cavity, and skin can be detected at early stages due to screening.

The stages of cancer are based on the tumor size and location and whether it has spread to other areas of the body. The TNM looks at the extent of the primary tumor (T), the involvement of the regional lymph node (N), and the presence or absence of distant metastases (M). From here additional stages (I-IV) can be assigned to describe early (I) to advanced (IV) diseases.

Treatments for cancer include chemotherapy (drugs used to kill cancer cells), radiation (high energy radiation used to kill cancer cells or shrink tumors). Because these two treatments destroy cancer cells, there are a variety of side effects that can result. Side effects from chemotherapy and radiation include anemia, appetite changes, bleeding, constipation, depression, diarrhea, hair loss, hormone changes, infection, nausea and vomiting, pain, skin and nail changes, tiredness. Other treatment options include surgery, bone marrow and stem cell transplantation, immunotherapy and biotherapy, and molecular-targeted drugs.

**Expert on Cancer?** DSES is always looking for volunteers to teach or give presentations!

### Resources and Additional Information:

American Cancer Society; [www.cancer.org](http://www.cancer.org)

Cancer.com; [www.cancer.com](http://www.cancer.com)

Centers for Disease Control and Prevention; [www.cdc.gov](http://www.cdc.gov)