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Myths & Facts of Cancer

This presentation provides the latest science-based information about some common cancer myths and misconceptions.

Common Cancer Myths and Misconceptions

- Certain popular ideas about how cancer starts and spreads—though scientifically wrong—can seem to make sense, especially when those ideas are rooted in old theories.
- But wrong ideas about cancer can lead to needless worry and even hinder good prevention and treatment decisions.

Is cancer a death sentence?

- No.
- In the United States, the likelihood of dying from cancer has dropped steadily since the 1990s. Five-year survival rates for some cancers, such as breast, prostate, and thyroid cancers, now exceed 90 percent. The 5-year survival rate for all cancers combined is currently about 66 percent. For more information, see the Annual Report to the Nation on the Status of Cancer.
- It is important to note, however, that these rates are based on data from large numbers of people. How long an individual cancer patient will live and whether he or she will die from the disease depend on many factors, including whether the cancer is slow or fast growing, how much the cancer has spread in the body, whether effective treatments are available, the person's overall health, and more.

Will eating sugar make my cancer worse?

- No.
- Although research has shown that cancer cells consume more sugar (glucose) than normal cells, no studies have shown that eating sugar will make your cancer worse or that, if you stop eating sugar, your cancer will shrink or disappear. However, a high-sugar diet may contribute to excess weight gain, and obesity is associated with an increased risk of developing several types of cancer.

Do artificial sweeteners cause cancer?

- No.
- Researchers have conducted studies on the safety of the artificial sweeteners (sugar substitutes) saccharin (Sweet 'N Low®), Sweet Twin®, NectaSweet®); cyclamate; aspartame (Equal®, NutraSweet®); acesulfame potassium (Sunett®, Sweet One®); sucralose (Splenda®); and neotame and found no evidence that they cause cancer in humans.
- All of these artificial sweeteners except for cyclamate have been approved by the Food and Drug Administration for sale in the United States.
- For more information, see the NCI fact sheet on Artificial Sweeteners and Cancer.

Is cancer contagious?

- In general, no.
- Cancer is not a contagious disease that easily spreads from person to person. The only situation in which cancer can spread from one person to another is in the case of organ or tissue transplantation. A person who receives an organ or tissue from a donor who had cancer in the past may be at increased risk of developing a transplant-related cancer in the future. However, that risk is extremely low—about two cases of cancer per 10,000 organ transplants. Doctors avoid the use of organs or tissue from donors who have a history of cancer.
- In some people, cancers may be caused by certain viruses (some types of human papillomavirus, or HPV, for example) and bacteria (such as *Helicobacter pylori*). While a virus or bacterium can spread from person to person, the cancers they sometimes cause cannot spread from person to person.
- For more information about cancer-causing viruses and bacteria, see the NCI fact sheets on *Helicobacter pylori* and Cancer, HPV and Cancer, and Cancer Vaccines.

Can cancer surgery or a tumor biopsy cause cancer to spread in the body?

- The chance that surgery will cause cancer to spread to other parts of the body is extremely low. Following standard procedures, surgeons use special methods and take many steps to prevent cancer cells from spreading during biopsies or surgery to remove tumors.
- For example, if they must remove tissue from more than one area of the body, they use different surgical tools for each area.
- For information about how cancer spreads in the body, see the NCI fact sheet on [Metastatic Cancer](#).

Will cancer get worse if exposed to air?

- No. Exposure to air will not make tumors grow faster or cause cancer to spread to other parts of the body.
- For information about how cancer spreads in the body, see the NCI fact sheet on [Metastatic Cancer](#).

Do power lines cause cancer?

- No, not according to the best studies completed so far.
- Power lines emit both electric and magnetic energy. The electric energy emitted by power lines is easily shielded or weakened by walls and other objects. The magnetic energy emitted by power lines is a low-frequency form of radiation that does not damage genes.
- For more information, see the NCI fact sheet on Electromagnetic Fields and Cancer.

Do cell phones cause cancer?

- No, not according to the best studies completed so far. Cancer is caused by genetic mutations, and cell phones emit a type of low-frequency energy that does not damage genes.
- For more information, see the NCI fact sheet on Cell Phones and Cancer Risk.

Are there herbal products that can cure cancer?

- No. Although some studies suggest that alternative or complementary therapies, including some herbs, may help patients cope with the side effects of cancer treatment, no herbal products have been shown to be effective for treating cancer.
- In fact, some herbal products may be harmful when taken during chemotherapy or radiation therapy because they may interfere with how these treatments work. Cancer patients should talk with their doctor about any complementary and alternative medicine products—including vitamins and herbal supplements—they may be using.
- For more information, see the Botanicals/Herbal Products section in Topics in Integrative, Alternative, and Complementary Therapies.

Do antiperspirants or deodorants cause breast cancer?

- No. The best studies so far have found no evidence linking the chemicals typically found in antiperspirants and deodorants with changes in breast tissue.
- For more information, see the NCI fact sheet on Antiperspirants/Deodorants and Breast Cancer.

If no one in my family has had cancer, does that mean I'm risk-free?

- No. Based on the most recent data, about 40 percent of men and women will be diagnosed with cancer at some point during their lives. Most cancers are caused by genetic changes that occur throughout a person's lifetime as a natural result of aging and exposure to environmental factors, such as tobacco smoke and radiation.
- Other factors, such as what kind of food you eat, how much you eat, and whether you exercise, may also influence your risk of developing cancer. For more information, see [Cancer](#)

Does hair dye use increase the risk of cancer?

- There is no convincing scientific evidence that personal hair dye use increases the risk of cancer.
- Some studies suggest, however, that hairdressers and barbers who are regularly exposed to large quantities of hair dye and other chemical products may have an increased risk of bladder cancer.
- For more information, see the NCI fact sheet on Hair Dyes and Cancer Risk.