

# Carcinogens: What Are They and Why Should I Avoid Them?

A carcinogen is a substance that causes a normal cell to change into a cancerous cell. The word "carcinogen" is derived from Greek origin and means "cancer causing." Carcinogens fall into two categories: naturally occurring substances that are found in food or soil, and artificial substances created for industrial purposes.

Cancer is caused by abnormalities in a cell's DNA. These abnormalities may be inherited from a person's parents or they may be caused by exposure to carcinogens. Carcinogens are items outside the body, such as chemicals, radiation, or even infectious agents. Cancer researchers believe that humans and animals must be exposed to a carcinogen for a certain period of time at a high enough concentration before cancer will occur.

Cancer is a group of diseases in which cells grow abnormally. Normal cells grow, reproduce, and die. These processes are controlled by the cell's genetic material. In a cancerous cell, the genetic material is altered and the cells are mutated or changed. Cancerous cells grow uncontrollably, forming a large mass of cells called a tumor. Sometimes cancerous cells break off from a tumor and enter the bloodstream, traveling to other parts of the body and infecting other organs with the disease in a process known as metastasis.

## Decreasing Your Exposure to Carcinogens Will Decrease Your Risk of Cancer

Although it isn't always possible to know the relationship between exposure dose and risk, it is reasonable for public health purposes to assume that lowering human exposure will reduce risk. Knowing what substances are classified as "carcinogens" can help in avoiding exposure and decreasing cancer risk.

People can be exposed to numerous substances at any one time, including those encountered at work, school, or home. It is usually many years (often decades) between exposure to a carcinogen and the development of cancer. Therefore, it can be very hard to single out any particular exposure as having a definite link to cancer.

## Where Are Carcinogens Found?

Carcinogens can be found in the environment, industrial chemicals, chemicals used in common household cleaning products, paints, adhesives, and solvents. Carcinogen chemicals are often used in the manufacturing process of plastics, textiles, cosmetics, dyes, glues and pesticides.

It is important to become aware of known carcinogens so that they can be avoided. Some of the known carcinogens include:

- Tobacco smoke
- Oral tobacco products
- Sun exposure
- Ultraviolet radiation
- Broadspectrum UV radiation
- Exposure to sunlamps or sunbeds
- Alcoholic beverages
- Wood dust
- Mineral oils
- Radon gas
- Coal tar
- Asbestos

These are just a few of the known carcinogens. The American Cancer Society provides a complete list of known carcinogens on its website (see below). Their list is updated every two years and gives details about 58 substances known to cause cancer in humans. They also list 188 substances that are "reasonably anticipated" to be carcinogens.

For a complete list of cancer-causing substances, go to the American Cancer Society's website: [http://www.cancer.org/docroot/NWS/content/NWS\\_1\\_1x\\_Viruses\\_Added\\_to\\_List\\_of\\_Cancer-Causing\\_Substances.asp](http://www.cancer.org/docroot/NWS/content/NWS_1_1x_Viruses_Added_to_List_of_Cancer-Causing_Substances.asp)