Understand the Risks: Common Substances Linked to Cancer

by ALISON RICHARDS

Identifying Cancer Causing Substances

Some cases of cancer are unavoidable and other cases are caused by cancer-causing substances. Cancer-causing substances can be genetic or just bad luck, but there are prevention methods. Food, chemicals and tobacco can all contribute to the development of cancer, as can many other environmental and lifestyle factors. Cancer-causing substances are called carcinogens and knowing what these are, and trying to avoid them, can potentially save your life.

Foods That May Cause Cancer

Processed Meats

Processed meats are at the top of the list of foods that are most likely to cause cancer:

- Bacon
- Hot dogs
- Salami

These foods are known to affect your chances of getting bowel cancer due to the chemicals and preservatives they contain. Heterocyclic amines, polycyclic amines, nitrates, nitrites and haem all harm bowel cells. Over time, that damage can increase your chances of getting colorectal cancer.

The more processed meat you eat every day, the higher your risk is of getting cancer. Cutting down or removing cancer-causing foods from your diet will lower your chances of getting cancer. Just one slice of bacon per day is enough to cause harm, so maybe it is time to cut out the cooked breakfast and have a healthier start to the day!

Red Meats

Red meat comes just behind processed meat in the high-risk cancer stakes:

- Pork
- Beef
- Veal
- Lamb

These are all associated with an increased chance of getting the disease compared to chicken, fish and plant-based protein.

Cooking Meats at High Temperatures

Just cooking meat at a high temperature may also lead to cancer. For example, by barbecuing or frying meat, it carries a greater risk of cancer than if you bake, boil or grill it. The reason for this is the harmful chemicals that are produced from well-done meat. They can cause prostate, pancreatic and bowel cancers.

The best way to avoid the cancer risks caused by food are to stick to chicken, turkey and fish, or adopt a vegetarian diet.

How Tobacco Causes Cancer

Tobacco is a particularly toxic substance for the body and causes 30% of all cancers. It affects most parts of the body, not just lung cancer, for which it is responsible for 90% of cases.

For example, bladder, kidney, liver, pancreatic and stomach cancer are all associated with smoking, as well as many others. There are over 70 carcinogenetic chemicals in tobacco smoke, which all enter your bloodstream when you inhale them. The blood is carried throughout your body, so it is no surprise that every organ can be affected. The chemicals in tobacco damage the body's DNA, which in turn causes abnormal cells to grow, ultimately turning into cancer.

What About Second-Hand Smoking?

Passive smokers are also at risk from cancer caused by the tobacco smoke they breathe in, even if they are non-smokers themselves. As well as cigarettes and cigars, tobacco in other forms also causes cancer, such as chewing tobacco.

Giving up smoking gives you immediate benefits even if you have been using cigarettes for many decades. According to the American Cancer Society, after five years of quitting smoking, your risk of getting cancer is cut in half, and lung cancer chances are halved after 10 years.

Alcohol

You are at an increased risk of certain cancers if you drink any alcohol, and some cancers are linked with moderate to high levels of drinking.

Unless you are a non-drinker, then you are at a higher risk of getting throat, mouth, laryngeal and esophageal (food pipe) cancer with any level of alcohol consumption. Moderate to heavy drinking is associated with a higher risk of getting liver, breast, colorectal, and head and neck cancer.

Drinking Alcohol and Consuming Tobacco

The risks of alcohol and tobacco are bad enough on their own, but when combined, the risk is even greater. It is thought that alcohol enables the mouth and throat to more easily absorb the harmful substances in tobacco.

Chemicals That Can Cause Cancer

Exposure to harmful chemicals for a prolonged period can affect your health including a higher risk of getting cancer. Some of these chemicals are:

- Asbestos
- Arsenic
- Beryllium
- Formaldehyde
- Soot
- Wood dust

It’s not always easy to avoid them either, as they can be found in the air we breathe or the water we drink.

Cancer-Causing Substances in the Workplace

Many workers are exposed to harmful chemicals as part of their job. For example, those who work in the nuclear industry, or with asbestos or soot. Even furniture makers who are exposed to wood dust on a long-term basis are at a higher risk. It’s vital to wear protective clothing and equipment, as they will prevent contact with such substances, and doing so can save your life. Contaminated clothing must always be washed carefully when you get home, otherwise you are putting members of your household at risk too.

How Can Sunlight Cause Cancer?

UV radiation from the sun and other sources is another risk factor for cancer. This happens when you are exposed to sunlight or tanning beds.

To reduce the chances of skin cancer, it is best to avoid being outside in the sun for prolonged periods, but if you must spend time outdoors on hot days, then always apply a high-factor sunblock and reapply it regularly, particularly if you go swimming.

Preventing Cancer

According to the American Cancer Society, 45% of cancer-related deaths in the U.S. have been due to “modifiable risk factors”. This means the cases could have been prevented.

It’s important to know which substances increase your chances of getting cancer so that you can avoid or limit them in your everyday life. Simple changes, such as eating less processed meat, cutting back on alcohol or using sunblock, can have a major impact to give you the best chances of avoiding cancer.