



Prostate Cancer Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person's age or family history, can't be changed.

But having a risk factor, or even several, does not mean that you will get the disease. Many people with one or more risk factors never get cancer, while others who get cancer may have had few or no known risk factors.

Researchers have found several factors that might affect a man's risk of getting prostate cancer.

Age

Prostate cancer is rare in men younger than 40, but the chance of having prostate cancer rises rapidly after age 50. About 6 in 10 cases of prostate cancer are found in men older than 65.

Race/ethnicity

Prostate cancer occurs more often in African-American men and in Caribbean men of African ancestry than in men of other races. African-American men are also more than twice as likely to die of prostate cancer as white men. Prostate cancer occurs less often in Asian-American and Hispanic/Latino men than in non-Hispanic whites. The reasons for these racial and ethnic differences are not clear.

Geography

Prostate cancer is most common in North America, northwestern Europe, Australia, and on Caribbean islands. It is less common in Asia, Africa, Central America, and South America.

The reasons for this are not clear. More intensive screening in some developed countries probably accounts for at least part of this difference, but other factors such as lifestyle differences (diet, etc.) are likely to be important as well. For example, Asian Americans have a lower risk of prostate cancer than white Americans, but their risk is higher than that of men of similar backgrounds living in Asia.

Family history

Prostate cancer seems to run in some families, which suggests that in some cases there may be an inherited or genetic factor (</cancer/cancer-causes/genetics.html>). (Still, most prostate cancers occur in men without a family history of it.)

Having a father or brother with prostate cancer more than doubles a man's risk of developing this disease. (The risk is higher for men who have a brother with the disease than for those who have a father with it.) The risk is much higher for men with several affected relatives, particularly if their relatives were young when the cancer was found.

Gene changes

Several inherited gene changes (</cancer/cancer-causes/genetics.html>) seem to raise prostate cancer risk, but they probably account for only a small percentage of cases overall. For example:

- Inherited mutations of the *BRCA1* or *BRCA2* genes raise the risk of breast and ovarian cancers in some families. Mutations in these genes (especially in *BRCA2*) may also increase prostate cancer risk in some men.
- Men with Lynch syndrome (also known as *hereditary non-polyposis colorectal cancer*, or HNPCC), a condition caused by inherited gene changes, have an increased risk for a number of cancers, including prostate cancer.

Other inherited gene changes can also raise a man's risk of prostate cancer. For more on some of these gene changes, see [What Causes Prostate Cancer? \(/cancer/prostate-cancer/causes-risks-prevention/what-causes.html\)](/cancer/prostate-cancer/causes-risks-prevention/what-causes.html)

Factors with less clear effect on prostate cancer risk

Diet

The exact role of diet (</cancer/cancer-causes/diet-physical-activity.html>) in prostate cancer is not clear, but several factors have been studied.

Men who eat a lot of red meat or high-fat dairy products appear to have a slightly higher chance of getting prostate cancer. These men also tend to eat fewer fruits and vegetables. Doctors aren't sure which of these factors is responsible for raising the risk.

Some studies have suggested that men who consume a lot of calcium (through food or supplements) may have a higher risk of developing prostate cancer. Dairy foods (which are often high in calcium) might also increase risk. But most studies have not found such a link with the levels of calcium found in the average

diet, and it's important to note that calcium is known to have other important health benefits.

Obesity

Being obese (</cancer/cancer-causes/diet-physical-activity/body-weight-and-cancer-risk.html>) (very overweight) does not seem to increase the overall risk of getting prostate cancer.

Some studies have found that obese men have a lower risk of getting a low-grade (less dangerous) form of the disease, but a higher risk of getting more aggressive prostate cancer. The reasons for this are not clear.

Some studies have also found that obese men may be at greater risk for having more advanced prostate cancer and of dying from prostate cancer, but not all studies have found this.

Smoking

Most studies have not found a link between smoking (</cancer/cancer-causes/tobacco-and-cancer.html>) and *getting* prostate cancer. Some research has linked smoking to a possible small increased the risk of dying from prostate cancer, but this finding needs to be confirmed by other studies.

Chemical exposures

There is some evidence that firefighters can be exposed to chemicals that may increase their risk of prostate cancer.

A few studies have suggested a possible link between exposure to Agent Orange, a chemical used widely during the Vietnam War, and the risk of prostate cancer, although not all studies have found such a link. The Institute of Medicine considers there to be “limited/suggestive evidence” of a link between Agent Orange exposure and prostate cancer. To learn more, see [Agent Orange and Cancer \(/cancer/cancer-causes/agent-orange-and-cancer.html\)](/cancer/cancer-causes/agent-orange-and-cancer.html).

Inflammation of the prostate

Some studies have suggested that *prostatitis* (inflammation of the prostate gland) may be linked to an increased risk of prostate cancer, but other studies have not found such a link. Inflammation is often seen in samples of prostate tissue that also contain cancer. The link between the two is not yet clear, and is an active area of research.

Sexually transmitted infections

Researchers have looked to see if sexually transmitted infections (like gonorrhea or chlamydia) might increase the risk of prostate cancer, because they can lead to inflammation of the prostate. So far, studies have not agreed, and no firm conclusions have been reached.

Vasectomy

Some studies have suggested that men who have had a vasectomy (minor surgery to make men infertile) have a slightly increased risk for prostate cancer, but other studies have not found this. Research on this possible link is still under way.

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