

Prostate Cancer and Heredity

How your family history affects your risk

This handout explains how heredity affects a man's risk of getting prostate cancer.

What causes prostate cancer?

We do not know exactly what causes prostate cancer, but we do know that some risk factors can make you more likely to get the disease.

Some of a man's risk for prostate cancer can be related to heredity (*genetics*). Men can inherit a risk of getting prostate cancer from one or both parents. One research study showed that up to 42% of your risk of prostate cancer may be inherited from your parents.



Sons can inherit some of their risk of getting prostate cancer from both of their parents.

Knowing if you have inherited a strong risk of getting prostate cancer may help you and your doctors plan your screening for prostate cancer. It may also help your doctor design better treatment if you are diagnosed with the disease.

How does family history affect my risk?

If you have a father or a brother (*first-degree relative*) with prostate cancer, your risk of having prostate cancer is about double (2 times) that of a man who does not have a father or brother with prostate cancer.

Men who have family members with other forms of cancer may also be at increased risk of prostate cancer. It is important to tell your doctor if you have *second-degree relatives* with cancer of the breast, ovary, pancreas, or colon. These second-degree relatives may be cousins, aunts, or uncles on both sides of your family.

The table on page 2 shows how much your risk for having prostate cancer increases if members of your family have had prostate cancer.

The information in this table is adapted from “Genetics of Prostate Cancer – for health professionals” by the National Cancer Institute; originally published as part of the study “An epidemiological reappraisal of the familial aggregation of prostate cancer: a meta-analysis,” by M. Kiciński, J. Vangronsveld, and T.S. Nawrot.

If you have:	Your risk is:
Brother(s) with prostate cancer, diagnosed at any age	3.14 times higher
Father with prostate cancer, diagnosed at any age	2.35 times higher
A brother or father with prostate cancer, diagnosed at any age	2.48 times higher
A brother or father with prostate cancer, diagnosed before age 65	2.87 times higher
A brother or father with prostate cancer, diagnosed age 65 or older	1.92 times higher
Two or more first-degree relatives (brothers or father) with prostate cancer, diagnosed at any age	4.39 times higher
Second-degree relative (uncle or cousin) with prostate cancer, diagnosed at any age	2.52 times higher

If you have family members with prostate cancer, or think you may be at risk for prostate cancer, talk with your healthcare provider about getting tested.

Scientific Studies

Scientists are always learning more about prostate cancer. They are currently studying the genes that might be involved in prostate cancer risk. At this time, there are 3 single genes that we know can increase prostate cancer risk:

- BRCA1
- BRCA2
- HOXB13

Ask your provider to explain more about these genes and the research that is being done. Or, visit this website to learn more:

www.cancer.gov/types/prostate/hp/prostate-genetics-pdq/#link/_1051

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Prostate Cancer
Prevention Clinic/Men’s
Health Center:
206.598.6358