

Genetic Counseling and Hereditary Cancer Risks

Due to your family's history with cancer, your doctor may recommend genetic counseling, or you may seek it out yourself. This fact sheet will discuss:

- Terms and definitions
- How to prepare for genetic counseling
- What happens during genetic testing
- Results of genetic counseling



Terms and Definitions

Some forms of cancer have been linked to abnormal genes, or genetic mutations, that are passed down from parent to child.

Genetic mutation – a permanent change in a person's DNA that can cause problems with how your cells work.

Hereditary cancer – a type of cancer that is caused by a genetic mutation passed from parent to child and occurring within families.

Genetic counseling – a meeting with an expert that can help you and your family understand whether you face a risk of diseases and other conditions because of your shared genetic traits.

Keep in mind:

- If a person has a genetic mutation, there is a chance that it has been passed down to their children.
- If one family member has a genetic mutation, it does not necessarily mean other members of the family have it.



Planning for a Genetic Counseling Visit

To prepare for genetic counseling, gather as much of your family's medical history as possible. Include the number of times a family member has had cancer, the age they were diagnosed, whether that person has passed away and whether they have also received genetic testing. This applies to blood relations, but not anyone who is adopted or not related by blood.

If you are missing any information, take this time to find out what you can from other family members.

Write down any questions and concerns you may have.



Genetic Testing for Cancer

A genetic counselor will use the information you provide to decide if genetic testing would be helpful for you and your family.

Typically, they will take your blood or saliva and send it to a lab to be studied. The results normally come out positive (a mutation was found) or negative (a mutation was not found).

Although not all forms of cancer are hereditary, research has found specific mutations that increase the risk of cancer. Common ones include:

- **Hereditary Breast and Ovarian Cancer (HBOC) syndrome.** Positive mutations in BRCA1 and BRCA2 genes increase your risk of breast, ovarian, prostate, and pancreatic cancers.
- **Lynch syndrome.** A health condition you are born with that can increase the risk of colon, gastric, urothelial, uterine, prostate and other cancers.

Reasons to get genetic counseling include:

- A family member has a cancer-related genetic mutation,
- Certain cancers appear multiple times in a family,
- A family member has a rare form of cancer or,
- A family member has developed cancer at an early age.
- Certain ethnicities are also at higher risk of some kinds of cancer.



Possible Results of Genetic Counseling

If you are diagnosed with a genetic mutation, it does not mean that you will ever have the related cancers. It means you have a higher chance of getting those cancers during your life.

If you are positive for a genetic mutation, the genetic counselor may recommend:

- Increased cancer screenings (such as frequent mammograms or colonoscopies)
- Preventive surgeries (for example, removing one or both breasts)
- Lifestyle adjustments, such as changing your diet
- Informing other family members about their potential risks

Discovering that you have higher cancer risks can result in anxiety, fear or depression. Discuss these concerns with your genetic counselor or reach out for help. CancerCare has oncology social workers who can help. Call 800-813-HOPE (4673).

CancerCare® Can Help

For over 80 years, CancerCare has empowered millions of people affected by cancer through free counseling, resource navigation, support groups, educational resources, advocacy and direct financial assistance. Our oncology social workers improve the lives of people diagnosed with cancer, caregivers, survivors and the bereaved, by addressing their emotional, practical and financial challenges.

To learn more, visit www.cancercare.org or call **800-813-HOPE (4673)**.

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