

What is Genetic Testing for Cancer?

Genetic testing looks for inherited changes or mutations in genes that increase the risk of certain cancers. *The National Cancer Institute* notes that about 5%-10% of all cancers are caused by harmful genetic changes inherited from a parent; a percentage that could potentially be avoided if proper genetic testing were to occur.¹

Genetic testing can identify the potential of a hereditary cancer syndrome. This syndrome is a type of inherited disorder where there is a higher chance of an individual being diagnosed with certain types of cancer, based on genes that may be passed from parent to child. Certain cancer patterns may become present among families. These patterns can include hereditary breast/ovarian cancer syndrome, Li-Fraumeni Syndrome, Cowden Syndrome, and Lynch Syndrome.¹

Who Should Consider Genetic Testing for Cancer?²

- Anyone diagnosed with the following cancers currently or previously: triple-negative breast cancer, ovarian cancer, pancreatic cancer, metastatic prostate cancer, or male breast cancer
- A general current cancer diagnosis
- Individuals with personal and/or family medical histories of cancer
- Multiple cancers in the same individual
- A colorectal cancer diagnosis prior to the age of 50
- Individuals with unknown family medical history and a desire to seek information

What are the Positives and Negatives of Genetic Testing for Cancer?¹

Understanding the positives and negatives of genetic testing for cancer is important before testing. Reviewing this information may help an individual decide if genetic testing for cancer is right for them. The positives and negatives are as follows:

- **Positives:**
 - Results that provide peace of mind
 - Results that allow an individual to manage their cancer risk
 - Results that identify harmful genetic changes before negative impacts occur
 - Results that guide appropriate treatments
- **Negatives:**
 - Results that add to the stress of knowing one possesses genes that increase their cancer risk
 - "Survivor Guilt" feelings (i.e. a harmful gene only being present in specific family)

- members)
- Uncertainty from receiving uninformative results (a result with not enough available information)
- Cost
- Time cost (i.e. process taking 4-8 weeks)
- Privacy or discrimination issues
- False-positive results

What Genetic Tests for Cancer Are Available?

- **Multigene or panel tests:**
 - Used when there is no known gene mutation present within a family
 - Panel tests may be ordered to focus specifically on genes regarding a particular type of cancer
 - Broad panel tests may be ordered to review genes linked to a variety of common cancers
- **Home-based genetic tests:**
 - Can be purchased without a doctor's order
 - Vary based on brands (brand example: MyRisk, GeneSight, etc.)
 - Test kit obtained and sample of DNA sent to lab (saliva)
 - Results received by mail/phone/secure link³

What Does the Genetic Testing for Cancer Process Look Like?

The overall genetic testing for cancer process may vary based on the individual. However, the following core steps remain the same³:

1. **Consultation:** Meeting with your qualified healthcare provider/genetic counselor to talk about family or personal medical history
2. **Informed Consent:** If deciding to move forward with the genetic testing for cancer process, one will be responsible for signing an informed consent form: outlining the overall testing process, potential risks, possible implications, and overall result possibilities
3. **Sample Collection:** Typically blood or saliva is obtained for genetic testing analysis. The sample is then sent to a laboratory where the testing takes place
4. **Laboratory Analysis:** The analyzation of the sample in a lab for specific gene mutations that may be associated with various cancer risks. This process can take several weeks. Timelines may vary
5. **Results Received:** See results information below
6. **Follow-Up Consultation:** A genetic counselor is present for result interpretation. Potential next steps are discussed and how to properly inform family members on their potential risks and need for genetic cancer testing



What Do the Results of Genetic Testing for Cancer Mean?¹

- Positive Results:
 - A genetic change **was** identified that is associated with an increased risk for cancer
 - May confirm that a cancer diagnosis was due to an inherited genetic change
 - May help guide treatment paths
 - May guide future management to lower potential cancer risk (i.e. adopting a healthier lifestyle, being screened more often)
 - Can help provide information for other family members to make decisions about their healthcare and consider genetic testing for themselves
- Negative Results:
 - Harmful genetic changes **were not** identified
 - Show that the individual being tested has not inherited the variant that is present among other members of their family
 - Do not mean that there is any cancer risk
 - Considered uninformative negatives (the family could still have an undetected cancer variant)
 - Should still influence appropriate medical follow-up based on family history or one's risk factors
- Variant of Uncertain Significance (VUS or Uninformative Results):
 - A genetic change with not enough available information
 - Unable to identify whether genetic change increases cancer risk or not
 - Most often reclassified as benign
 - A result that is often not considered in making future health care plans

Who Has Access to Genetic Testing for Cancer Results?

It is important to understand that one's results will be included in their medical records. Individuals that have access to those specific medical records will be able to access results of the tested individual. Remember the Health Information Portability and Accountability Act (HIPAA) requires that disclosure and access to a person's medical record remain limited and that a person's overall identifiable health information remain protected by their health care providers.¹ Additionally, various states have laws or regulations in place regarding the further protection of patient information/records and limit the release of genetic information.

What are the Costs of Genetic Testing for Cancer?⁴

- Varied cost range depending on insurance/coverage type, type and scope of test, lab fees/provider costs, additional consultation or follow-up services
- Basic genetic cancer tests cost around \$250



- Expanded genetic cancer tests may cost upwards of \$1000
- Individuals may qualify for financial assistance through organizations and programs and offer screening reimbursement/coverage

What Are Some Resources Regarding Financial Assistance for Testing?

- Patient Advocate Foundation Co-Pay Relief (Cancer Genetic and Genomic Testing)
 - Household Income Requirement of 500% or less of Federal Poverty Guideline
 - All insurance types accepted for eligibility
 - Must reside and receive treatment in the United States
 - Call 1-866-512-3861 or apply online at [Cancer Genetic and Genomic Testing – Co-Pay Relief](#)
- Myriad Genetics Financial Assistance
 - Those that are uninsured, have limited coverage, or are experiencing a financial hardship may apply
 - Assistance offers may consist of no out-of-pocket costs, reduced costs based on medical or financial circumstances, or direct payment options with interest-free plans
 - Apply online at [Financial assistance | Myriad Genetics](#)
- GeneDx
 - Robust financial assistance program offered to reduce out-of-pocket testing costs
 - Complete the electronic Financial Assistance Application found here: [GeneDx Order Forms & Provider Documents | Test Requisitions & Consents](#)
 - Contact regarding approval will be provided within 2-3 business days

References

1. "Genetic Testing for Inherited Cancer Risk." *National Cancer Institute*. Accessed 4 March 2026. [Genetic Testing Fact Sheet - NCI](#)
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3. "Genetic Testing for Cancer: What to Know." *Healthline*. Accessed 4 March 2026. [Genetic Testing for Cancer: Benefits, Risks, Cost, and More](#)
4. "How Much Does a Genetic Cancer Test cost?" *Aflac*. Accessed 4 March 2026. [How Much Does a Genetic Cancer Test Cost? | Aflac](#)

