



Genetic testing for

# hereditary cancer



# The genetics of hereditary cancer

## What impacts cancer risk?

Approximately 40% of men and women in the US will develop cancer during their lifetimes.<sup>1</sup>

Chance, aging, and exposures are some of the most common factors that affect whether a person develops cancer, but a person's genetics can be an important factor as well.<sup>2,3</sup>



## Cancer risk factors

Chance

Aging

Exposures

Genetics

## How genetics impact cancer risk

While many genetic changes called “gene variants” are good for your health, or simply make you unique, others can increase the risk of developing different types of cancers, including colon, breast, stomach, uterine, skin, prostate, ovarian, and pancreatic cancer. Like other genetic information, variants that increase the risk for cancer can be passed down from a family member. This can lead to what is called hereditary cancer.<sup>4,5</sup>

**1 in 8 people with cancer**

have a gene variant that increases cancer risk and can be passed down through their family.<sup>6</sup>

### Gene variants can increase the risk of:



COLON CANCER



BREAST CANCER



STOMACH CANCER



UTERINE CANCER



SKIN CANCER



PROSTATE CANCER



OVARIAN CANCER



PANCREATIC CANCER

## Testing for gene variants

Doctors can check for gene variants through **genetic testing**. These important tests can reveal how your genes may affect your risk for developing different types of cancers or help optimize care for your existing cancer. This knowledge empowers you to consider the best choices for your health.<sup>7</sup>

# The benefits of genetic testing

Genetic testing can have several possible results, including a **positive** result, which means you have a gene variant that is associated with hereditary cancer.

## If you have cancer, a positive result<sup>6-8</sup>:

- may open the door for **more personalized care options** that can be tailored for your particular cancer
- may provide **access to clinical trials**
- may help to **estimate your risk for developing another cancer**, which may impact care or screening recommendations to you both now and in the future

**> 1 in 4** patients with inherited variants in high-risk cancer genes had changes to medical management based on their test results, including chemotherapy and surgical decisions.<sup>6</sup>

## If you do not have cancer, a positive result<sup>7</sup>:

- may help to **estimate your risk for developing cancer** in the future
- may empower you to **take steps to reduce your cancer risk** or get additional screening to **help detect cancer early** if it does occur

**With a negative result**, you and your doctor can decide the next steps based on your personal and family history.

Sometimes a gene variant is identified, but it is **uncertain** whether the variant could cause an increased risk for cancer. Invitae may be able to provide more information about what these results mean for you and your family in the future. Until then, you and your doctor can decide on next steps based on your personal and family history.

**Genetic results** may help you make more informed decisions about your health. **Scan to learn more**



If you have  
cancer

[invitae.com/inform-my-care](https://www.invitae.com/inform-my-care)



If you do not  
have cancer

[invitae.com/inform-my-risk](https://www.invitae.com/inform-my-risk)

## What your results mean for your family

**Identifying at-risk family members is one of the most important benefits of genetic testing.** If you have a gene variant, it increases the chance that your family members have the same one.<sup>7</sup>



Your siblings and children could have up to a 50% chance of having the same variant as you



It is also possible that relatives have a different gene variant than you



Family members can be tested for the same variant you have, as well as variants in other genes associated with hereditary cancer, so they can benefit from prevention measures, more frequent screening and personalized care if necessary

Learn more at [invitae.com/patients/family-testing](https://www.invitae.com/patients/family-testing)

## Who should consider genetic testing?

Everybody can benefit from genetic testing, including people who are already diagnosed with cancer, as well as healthy individuals.<sup>6,9</sup>



If you or your family members have been diagnosed with cancer, talk to a healthcare provider about whether genetic testing is right for you



Important information to share with your healthcare provider may include your ancestry, the types of cancers on both sides of your family, and the ages at which they were diagnosed. These factors may help estimate how likely you are to have a gene variant associated with hereditary cancer<sup>4,5</sup>



**For detailed information** about testing guidelines by cancer type, **scan here or visit** [invitae.com/cancerguidelines](https://www.invitae.com/cancerguidelines)



# Genetic testing with Invitae

## Genetic testing for hereditary cancer

Invitae is a leading medical genetics company. Our mission is to bring genetic information into routine patient care to help improve the quality of healthcare. To do that, we're dedicated to making genetic testing affordable and accessible.

### Invitae's genetic tests provide:



#### Clear next steps

Results come with clear next steps, helping you and your doctor take action based on your genetic results.



#### Access to genetic experts

Suppose you're not already working with a genetic counselor. In that case, once you have results, Invitae can help you access a genetics expert to get your questions answered—so you can feel confident in your potential next steps.

**To learn more, visit [invitae.com/en/here-for-you](https://www.invitae.com/en/here-for-you)**



#### Testing and so much more

Millions of people trust Invitae for better health. We put you first in all that we do, so that you can make more informed decisions.

# How our genetic testing works

It all starts with a simple blood or saliva sample

- 1 Work with your doctor to decide if genetic testing is right for you
- 2 Your doctor will then decide which set of genes to test for
- 3 Submit a blood sample at your doctor's office or a saliva sample from the comfort of your home
- 4 After receiving and testing your sample, Invitae will send your results to your doctor, who will discuss your results and next steps with you



Learn more about genetic testing and how it works at [invitae.com/en/cancer](https://www.invitae.com/en/cancer)





## References:

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## Invitae Billing Assurance Program

Our dedicated billing specialists work with each patient to get a comprehensive view of their unique financial situation and help identify cost-effective and affordable payment options. Typically, the out-of-pocket cost for a patient using insurance is less than \$100.



Learn more at [invitae.com/billing](https://www.invitae.com/billing)



Ask your doctor about genetic testing with Invitae.