

# VistaSeq<sup>®</sup>

hereditary cancer panel

Hereditary  
cancer testing



**5 to 10%**

of all cancers result  
directly from an  
inherited mutation.<sup>1</sup>



## WHEN PEOPLE REVIEW THEIR FAMILY'S MEDICAL HISTORY, THEY MAY FIND A NUMBER OF RELATIVES WHO HAVE HAD VARIOUS TYPES OF CANCER.

This may be due to their relatives having certain risk factors in common, such as smoking, or it may be due to an inherited gene mutation that can increase their risk for developing cancer.<sup>1</sup> VistaSeq provides an assessment of genetic mutations within a panel of genes known to be associated with hereditary cancer syndromes.

### Is my family at risk for an inherited cancer mutation?

You can determine if a cancer mutation may run in your family by discussing your family's history of cancer with your physician. Certain factors might make it more likely that the cancers in your family are caused by an inherited gene mutation.<sup>1</sup>

- Several cases of an uncommon or rare type of cancer in your family
- Cancers occurring at younger ages than usual
- More than one type of cancer in a single person
- Cancers occurring in both of a pair of organs (such as cancer in both kidneys)
- More than one childhood cancer in a set of siblings
- Cancer occurring in a person of a gender not usually affected

It is important to remember that not everyone who inherits a gene mutation will develop cancer. A person with a mutation only has an increased risk of developing cancer. He/she has not inherited the cancer itself.

Speak to your physician, genetic counselor, and/or geneticist about your family's medical history. They can determine your level of risk and answer any other questions you may have.

## What is an inherited gene mutation?

Genes are found in the cells of the body and contain a code that controls how each cell will function. When mutations or abnormalities occur within genes, the genes may not work correctly. An inherited mutation is one that is passed down from either your mother or father. Sometimes inherited mutations can cause a person to have an increased risk for certain types of cancer.

## What is the purpose of hereditary cancer testing?

The purpose of testing is to see if you are carrying a mutation and could therefore be at increased risk for developing certain cancers. Having this information can allow your physician or genetics professional to provide the appropriate additional screening and/or prevention options that could help reduce your risk.

## What options do I have for testing?

The choice to have a genetic test to determine your hereditary cancer risk is up to you. Options range from tests that target mutations specific for a certain type of cancer to larger panels that test for multiple hereditary cancer syndromes. Based on your personal and family history of cancer, your physician, genetic counselor, or geneticist will discuss the testing options appropriate for you. Some testing options you may be offered include panels for:

- Multiple hereditary cancer syndromes
- Breast cancer
- Gynecological cancers
- Colorectal cancer

## What do the results mean?

Hereditary cancer testing could give you a few possible results: positive, negative, or an uncertain result. In all cases, you should discuss the results and any appropriate follow-up with your physician.

### Positive results

A positive test result means that you have inherited a gene mutation(s) and have an increased risk of developing certain cancers. This test result does not indicate if you will actually develop cancer. A positive test result could also have important implications for your family members. Since you would have inherited this mutation from your mother or father, your relatives could also be at risk for carrying a mutation. There will also be a chance that you will pass this mutation on to your children. It can be helpful to discuss this test result with your family members so they can decide if hereditary cancer testing is right for them.

### Negative results

A negative test result means that your chance of carrying certain inherited mutations has been greatly reduced but not completely eliminated. This does not mean that you cannot develop cancer. Most people diagnosed with cancer do not carry an inherited mutation.<sup>1</sup> Individuals with negative results from hereditary cancer testing will still require routine cancer screening.

### Uncertain results

An uncertain result means that a mutation in one of your genes has been detected, but, at this time, it is not clear if the specific gene mutation may lead to an increased risk of cancer. Genetic researchers are learning more about gene mutations and their associated cancer risks every day. Individuals with uncertain results should discuss appropriate surveillance and follow up with their physicians.



## What options do I have if I carry a hereditary cancer mutation?

If you are positive for a mutation, there are several options that you and your physician may consider to reduce the risk for developing cancer.

Depending on the type of mutation identified, options may include<sup>1,2</sup>:

- Increased or enhanced screening for cancer
- Starting cancer screening at an earlier age
- Proactive (prophylactic) surgery
- Drug therapy (chemoprevention)
- Evaluation of your family members' risk

It is important to discuss these and other options with your physician and/or your genetic counselor to understand which option is best for you.

## Genetic counseling for VistaSeq®

Your physician may refer you to a genetic counselor to discuss your risk for hereditary cancer and your testing options. A genetic counselor is a health care professional with a master's degree in human genetics or genetic counseling. The role of a genetic counselor is to help you better understand your genetic risks and the tests available to you. The training they receive enables genetic counselors to discuss technical genetic information in practical, useful terms.

### What happens during a hereditary cancer genetic counseling session?

The genetic counselor will lead you through a discussion to evaluate your medical history for relevant information, review your family history and construct a family tree. They will use this information in order to:

- Evaluate your risk for cancer and your risk to be a carrier for genes that can cause hereditary cancer
- Discuss the genetic testing options that may be appropriate for you
- Explain the potential results of testing and what those results may mean in the context of your family history
- Provide an overview of cancer screening options and risk reduction measures

The decision to accept or decline any recommended genetic testing is up to you.

### How do I schedule an appointment with a genetic counselor?

If your physician refers you for genetic counseling with Integrated Genetics, please visit [integratedgenetics.com](http://integratedgenetics.com) to obtain additional information and to schedule an appointment.



**Toll-free**  
(within the US)

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## REFERENCES

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