

TumorNext-*HRD*<sup>®</sup>  
PATIENT GUIDE

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A Test For Ovarian Cancer Patients To Identify  
Hereditary and Tumor-Specific Mutations

# Germline vs. Tumor Testing

TumorNext-*HRD* looks for mutations in your tumor (also referred to as somatic testing) and inherited (germline) mutations in your blood.

It is important to understand the key differences between **germline** and **tumor** genetic tests; each can provide very different information about your health and your family.

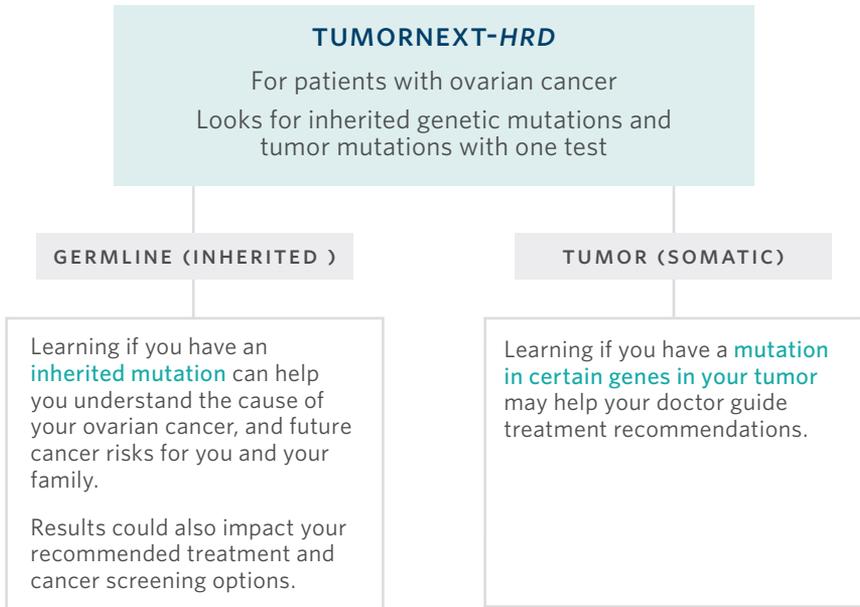
## WHAT'S THE DIFFERENCE?

	WHAT IS TESTED?	INHERITANCE	RISKS
INHERITED (GERMLINE)	Blood or saliva  Genes that are identical in all cells of your body	Can be inherited and passed on to family members	Linked to an increased risk for other cancer(s)
TUMOR (SOMATIC)	Your tumor tissue for cancer-specific changes	Not inherited and only present in your tumor cells. Cannot be passed to family members	Does not increase your risk for other cancers  Can impact your treatment

By testing normal tissue (blood or saliva) and tumor tissue, we can detect both types of mutations to give you and your healthcare provider more information about how to best care for you and your family.

# What is TumorNext-HRD?

Some of the genes in our body help to fix errors in our DNA in a process called homologous recombination. When one of these genes has a mutation, this process may not work well, which can lead to the development of cancer. These mutations cause something called **homologous recombination deficiency or HRD**.

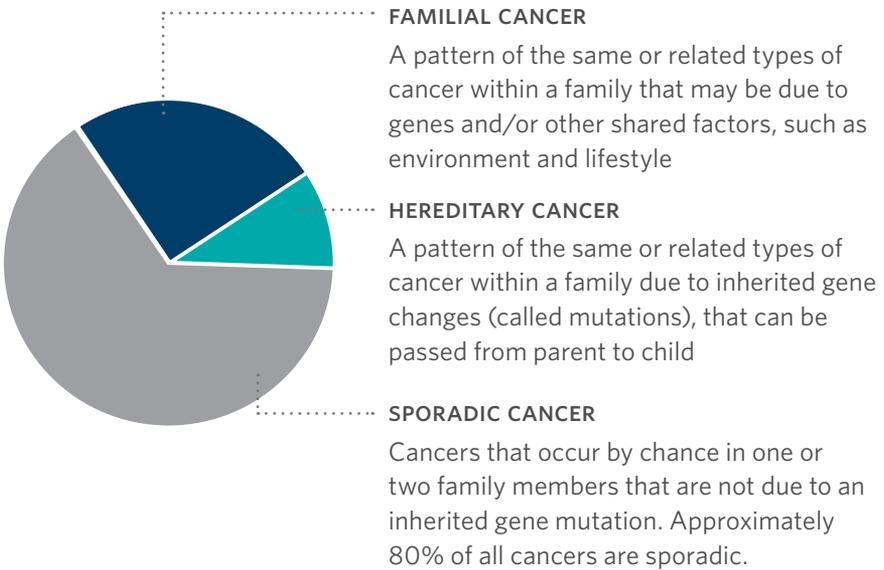


## WHAT ARE PARP INHIBITORS?

PARP inhibitors can sometimes be used to treat ovarian cancer. This may be referred to as targeted treatment because it targets unique traits of a tumor to selectively kill cancer cells. Before a PARP inhibitor is prescribed, germline and tumor genetic testing are often used to find the right patients for this drug to be effective.

# Understanding The Basics

## CANCER FALLS INTO 1 OF 3 CATEGORIES



## ABOUT HEREDITARY CANCER

Many people have a family history of cancer, but only **10-25% of ovarian cancer is hereditary.**

People who have these gene mutations **are born with them** - they do not develop over time.

Learning if you have an **inherited (germline) mutation** can help you know more about your cancer risks.

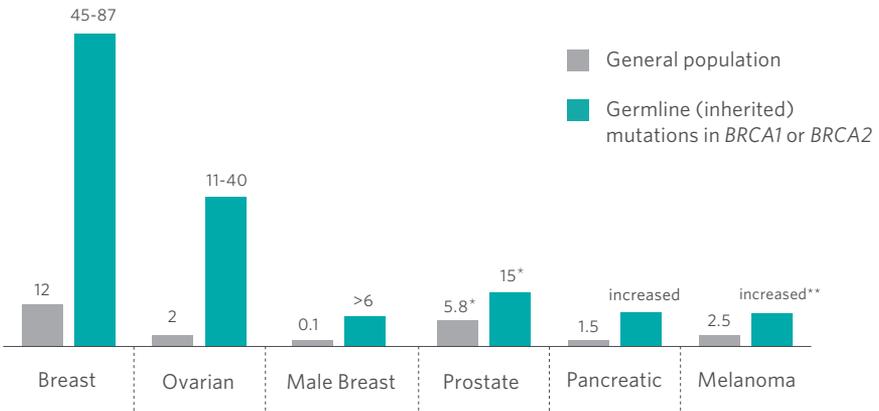
People with a higher chance of developing cancer may need screening, that starts at **younger ages, and/or occurs more often.**

# Understanding Disease Better Through Quality Testing

**YOUR GENES CARRY A STORY THAT IS UNIQUE TO YOU AND MAKES YOU WHO YOU ARE. GENETIC TESTING CAN HELP YOU BETTER UNDERSTAND YOUR RISKS FOR CANCER.**

Genetic testing for hereditary ovarian cancer can include a varying number of genes, including *BRCA1/2*, that are linked to an increased lifetime risk for ovarian, breast and/or other cancers. Based on your results, your healthcare provider may discuss more specific cancer risks for you and your family.

## Hereditary Breast and Ovarian Cancer Lifetime Risks (%)



\* Risk to 60-69 years old and up to 65 years old, respectively

\*\* Risk for *BRCA2* only

Your healthcare provider has determined that the best test for you is:

- TumorNext-*HRD*
- TumorNext-*BRCA*
- BRCANext™
- BRCANext-Expanded™
- Other: \_\_\_\_\_

**VISIT OUR WEBSITE**

For more information about TumorNext-*HRD*, visit our website: [ambrygen.com](https://www.ambrygen.com)

# What are the Benefits of TumorNext-HRD?

## BENEFITS OF BOTH GERMLINE AND TUMOR TESTING:



Your doctor may discuss the possibility of **personalized treatment options** based on your genetic test results, including targeted drug therapies such as PARP inhibitors.

## BENEFITS OF GERMLINE GENETIC TESTING:



Your healthcare provider can adjust your **cancer screening plan** (such as age of initial screening, type, and frequency) based on your genetic test results.

- Examples of cancer screening are mammograms or breast MRI

Your healthcare provider may discuss possible cancer **prevention options**, such as preventive surgery to reduce the risk for certain cancers.

- Examples are prophylactic mastectomy (removing one or both breasts before a cancer occurs)

## AMBRY GENETICS OFFERS NO-COST TESTING TO CLOSE RELATIVES

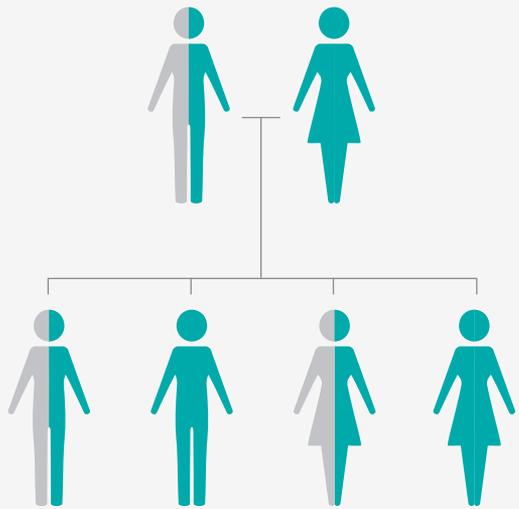
This is available for the specific genetic mutation identified in the first family member tested at Ambry within 90 days of the original report date.

### FOR YOUR FAMILY MEMBERS:

If you test positive for a genetic mutation, your close family members (like your parents, brothers, sisters and children) have a 50/50 random chance of also having the same mutation.

■ Has genetic mutation

■ No mutation



- Men and women have the same chance of inheriting a mutation, but their chance of developing cancer may be different.

# Possible Genetic Test Results

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## **A GERMLINE (INHERITED) MUTATION LINKED TO AN INCREASED RISK FOR CANCER WAS FOUND IN ONE OF THE GENES TESTED**

Personalized treatment may be available to you based on your genetic test results. Tailored cancer screening or preventive options may also be recommended.

Genetic testing for certain family members may be recommended



## **SOMATIC (TUMOR) MUTATION WAS FOUND IN ONE OF THE GENES TESTED**

Targeted treatment options may be available to you. If only a somatic (tumor) mutation is found, then cancer risk(s) and additional management recommendations for you and your family members may be based on personal and family history



## **NO GENETIC CHANGES WERE FOUND IN ANY OF THE GENES TESTED**

Cancer risk(s) and management recommendations are based on personal and family history



## **VARIANT OF UNKNOWN SIGNIFICANCE (VUS)**

**At least one genetic change was found, but it is unclear if this change causes an increased risk for cancer or not**

Cancer risk(s) and treatment recommendations are based on personal and family history

For negative or VUS results, talk to your healthcare provider to determine if relatives would benefit from any additional genetic testing.

*It is possible to have a combination of positive and VUS results, since multiple genes are tested.*

# Resources For You

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Ambry's Patient Education Website

[ambrygen.com/patient](https://ambrygen.com/patient)

Genetic Information Nondiscrimination Act

[ginahelp.org](https://ginahelp.org)

American Cancer Society

[cancer.org](https://cancer.org)

National Cancer Institute

[cancer.gov](https://cancer.gov)

American Society of Clinical Oncology

[cancer.net](https://cancer.net)

National Ovarian Cancer Coalition

[ovarian.org](https://ovarian.org)

Foundation for Women's Cancer

[foundationforwomenscancer.org](https://foundationforwomenscancer.org)



## FIND A GENETIC COUNSELOR

National Society of Genetic Counselors

[nsgc.org](https://nsgc.org)

Canadian Association of Genetic Counsellors

[cagc-accg.ca](https://cagc-accg.ca)

# Frequently Asked Questions

## 1 HOW IS GENETIC TESTING PERFORMED AND HOW LONG DOES IT TAKE?

Genetic testing requires a blood or saliva sample, which is collected using a special kit that is shipped overnight to Ambry Genetics by your healthcare provider. The testing, which looks for mutations that cause an increased risk for cancer, takes less than three weeks to complete, and results are sent to your healthcare provider.

## 2 WHAT WILL HAPPEN WHEN MY RESULTS ARE READY?

Your healthcare provider will receive your results; they will not be sent directly to you. Every healthcare provider may have a different method and time frame for reviewing your results with you, so it is important to discuss this process with them when your test is performed. Your healthcare provider will discuss recommended next steps based on your test results.

## 3 WILL MY GENETIC TEST RESULTS AFFECT MY INSURANCE COVERAGE?

In the U.S., the Genetic Information Nondiscrimination Act (2008) prohibits discrimination by health insurance companies and employers, based on genetic information. Depending on where you live in the world, you may have different (or fewer) laws in this area. Visit [ginahelp.org](http://ginahelp.org) to learn more.

## 4 HOW WILL MY TEST RESULTS BE PROTECTED?

We are required by law to maintain the confidentiality of your protected health information in accordance with the Health Insurance Portability and Accountability Act (HIPAA). Visit [HHS.gov](http://HHS.gov) to learn more.

## 5 SHOULD I TELL MY FAMILY MEMBERS ABOUT MY GENETIC TEST RESULTS?

It is important to share your results with your family members, because they may provide additional information about their own cancer risks and management options. If you feel unsure about how to approach the subject, your healthcare provider may be able to offer some advice.

## 6 WILL GENETIC TESTING BE COVERED BY MY INSURANCE?

Many insurance plans cover genetic testing, and Ambry Genetics is contracted with the majority of U.S. health plans. Your out-of-pocket cost may vary based on your individual plan. A team of dedicated specialists is available to help you get access to the genetic testing you need, and provide further details about our payment options. Please call or email our Billing department at +1.949.900.5795 or [billing@ambrygen.com](mailto:billing@ambrygen.com) with any questions. Visit [ambrygen.com/patientbilling](http://ambrygen.com/patientbilling) for more information.

## 7 WHAT IS AN EXPLANATION OF BENEFITS (EOB)?

Your insurance company sends you an EOB to explain any services paid on your behalf. You can contact us directly to speak with a Billing specialist with any questions or concerns about Ambry Genetics genetic testing that appears on your EOB. It is important to remember that insurance companies can take several weeks or even a couple of months to process claims.

## STILL HAVE QUESTIONS?

Talk to your healthcare provider or visit our website: [ambrygen.com](http://ambrygen.com)

# Elevating the Standard of Care™

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