

BRCA^{Analysis} Testing: If your family has a history, put it to the test!

Learn about your risk for hereditary breast or ovarian cancer and how you can reduce it.

Do you have a family history of breast or ovarian cancer?

Ask yourself the question. The answer could help you be ready against hereditary cancer.

What is a family history of breast or ovarian cancer?

To understand if breast or ovarian cancer runs in your family, look at your own history, as well as that of both your parents. Breast or ovarian cancer isn't just passed from mother to daughter. A father can also pass it on to his daughter.

You could have an inherited risk if:

- You or a family member (mother's or father's side) were diagnosed with breast cancer before the age of 50
- You or a family member were diagnosed with ovarian cancer at any age
- You have a male family member with breast cancer
- You have Ashkenazi Jewish ancestry, and a personal or family history of breast or ovarian cancer at any age
- You or a family member have had two or more breast cancers, one diagnosed under the age of 50
- You have had breast cancer in both breasts or more than one within the same breast
- You or a family member have been diagnosed with breast and ovarian cancer
- You have a previously identified BRCA1 or BRCA2 mutation in your family

Most hereditary breast and ovarian cancer occurs because of a mutation in either the BRCA1 or BRCA2 genes.

If you have a BRCA gene mutation, you could have up to an 87% risk of breast cancer and a 44% risk of ovarian cancer in your lifetime.

Understanding if breast or ovarian cancer runs in your family is important. Research shows that early detection – along with taking certain steps – can reduce your risk of developing hereditary cancer.

What does it mean to have a family history of breast or ovarian cancer?

Hereditary breast and ovarian cancer syndrome is an inherited condition that causes an increased risk for breast and ovarian cancer (often before age 50).

Knowing if you have a BRCA gene mutation can help you to inform your family of their potential risk of hereditary cancer.

Important facts and figures about BRCA mutations.

- Women with a BRCA mutation have:
 - Up to a 50% risk of developing breast cancer by age 50
 - Up to an 87% risk by age 70
 - Up to a 64% risk of developing a second breast cancer
 - Up to a 44% chance of developing ovarian cancer by age 70
- Certain BRCA mutations are more common among people of Ashkenazi Jewish descent (central or eastern European)
- BRCA mutations also increase the risk for other cancers in both men and women, including up to a 7% risk for male breast cancer

The first step to knowing your risk is understanding your family history.

Complete as much of the chart below as possible. Your answers can help determine if hereditary breast and ovarian cancer runs in your family. Then discuss it with your doctor or another health care provider, and alert him or her if you have marked one or more of the boxes below.

	You	Siblings/Children	Mother's Side	Father's Side
Breast cancer before age 50				
Ovarian cancer				
Breast cancer in both breasts OR multiple primary breast cancers				
Male breast cancer				
Ashkenazi Jewish descent				

BRCAAnalysis is a test for hereditary breast and ovarian cancer

BRCAAnalysis is for individuals at risk for hereditary breast or ovarian cancer.

It is not like a mammogram or other screening tests that are recommended for every woman. If you and your health care professional determine that you are at risk for hereditary breast or ovarian cancer, BRCAAnalysis would be right for you.

What is BRCAAnalysis?

BRCAAnalysis does not tell you whether you have cancer, but detects mutations in the BRCA1 and BRCA2 genes. These are the gene mutations that are responsible for the vast majority of hereditary breast and ovarian cancer. Only a small blood or oral rinse sample is taken for analysis.

How you can use BRCAAnalysis test results.

The BRCAAnalysis test results may enable you and your family to make more informed choices and help you be ready against hereditary cancer. For example:

- A woman who discovers she has a BRCA mutation can start screening for cancer when she is younger or choose to reduce her risk through medication or surgery
- A woman already diagnosed with cancer can take certain steps to try and prevent a second cancer
- Individuals with a family history of breast or ovarian cancer may want to know whether they carry a mutation that could be passed down to their children.

Knowing your test results can also help your doctor or other providers manage your health care needs more effectively.

Knowing your risk empowers you to lower it.

BRCAAnalysis can help you find out your risk, so you can manage hereditary breast or ovarian cancer before it even develops. Professional medical organizations recommend the following options:

Increased Surveillance

Breasts

- Monthly breast self-exams starting at age 18
- Semiannual clinical breast exams starting at age 25
- Annual mammograms and/or MRI (magnetic resonance imaging) starting at age 25 or individualized based on earliest age of onset in family

Ovaries

- Semiannual transvaginal ultrasound and a CA-125 test to screen for ovarian cancer starting at age 35 or 5-10 years earlier than the earliest age of first diagnosis of ovarian cancer in the family

Preventative Drug Therapy

- Drugs such as tamoxifen or raloxifene can reduce the risk of breast cancer in some high-risk women
- Oral contraceptives can significantly reduce the risk of ovarian cancer

Preventative Surgery

- Preventative removal of the breasts (mastectomy) significantly reduces the risk of breast cancer
- Preventative removal of the ovaries and fallopian tubes (salpingo-oophorectomy) significantly reduces the risk of ovarian cancer and may also reduce the risk of breast cancer

Frequently asked questions about the BRAC*Analysis* test.

What is the testing process like?

- After meeting with your health care provider to discuss your options, a small blood or oral rinse sample is taken. This sample is then shipped directly to Myriad Genetic Laboratories. Results can be obtained from your health care provider in about two weeks.

Will my health insurance pay for BRAC*Analysis*?

- Most health insurance companies pay for testing. In fact, more than 90% of tests receive coverage, and the average reimbursement is greater than 90%.

Can my health insurance coverage be impacted based on the results?

- No. The Genetic Information and Nondiscrimination Act of 2008 (GINA) prohibits discrimination in health insurance and employment based on genetic information. In addition, the Federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), as well as legislation in most states, protects patient privacy and prohibits health insurance discrimination based on genetic information.

Are my test results private?

- Yes, your results are strictly confidential. Under no circumstance will Myriad share your results with any party, other than the ordering health care provider or his/her designee, without your written consent. Even your insurance company will not receive a copy from Myriad.

How can I get more information about hereditary cancer risk assessment and BRAC*Analysis*?

- Please talk to your health care provider. You can also call Myriad at 866-BRACNOW or visit our web site at www.bracnow.com

Contact these organizations for additional assistance and information.

Breast and Ovarian Cancer Organizations

- Bright Pink www.bebrightpink.org
- John W. Nick Foundation www.johnwnickfoundation.org 866-222-4441
- Susan G. Komen for the Cure www.komen.org 877-465-6636
- Living Beyond Breast Cancer (LBBC) www.lbbc.org 888-753-5222
- Men Against Breast Cancer www.menagainstbreastcancer.org 866-547-6222
- National Ovarian Cancer Coalition www.ovarian.org 888-OVARIAN
- Young Survival Coalition www.youngsurvival.org 877-YSC-1011
- Gynecologic Cancer Foundation www.thegcf.org 800-444-4441

General Cancer Organizations

- American Cancer Society www.cancer.org 800-ACS-2345
- Cancernet www.cancernet.nci.nih.gov 800-422-6237
- Myriad Genetic Laboratories, Inc. www.bracnow.com 866-BRACNOW