

Genetic Testing for Breast Cancer Risk: What Does It Mean to Me?

Breast cancer seems to run in my family. What should I do?

Sometimes people overestimate their risk for cancer and think it is much higher than it really is. When carefully checked, your family medical history may not be a cause for concern.

Hereditary breast cancer is **not** common—*most women don't get the inherited kind of breast cancer*. Many women have mothers, daughters or sisters who have had breast cancer, but less than one in 10 cases of breast cancer is due to an inherited gene mutation.

For some women, the chance of developing hereditary breast cancer may be higher. If we are able to find out if this applies to you, we then can help you decide what to do. Start by first reading and completing the questions on this page. Then talk with your doctor.

Do any of the following apply to you? (Check the box below for those that do.)

- Two or more closely related female relatives on the same side of your family had breast or ovarian cancer. (“Closely related female” means mother, daughter, sister, grandmother, aunt or niece who is related by blood—not by marriage or adoption.)
- A closely related female relative was diagnosed with breast cancer before menopause or age 50.
- A closely related female relative has had cancer in both breasts.
- A closely related female relative has had both breast and ovarian cancer.
- A closely related female relative of Jewish ancestry has had breast or ovarian cancer.
- A closely related male relative has had breast cancer. (This means father, son, brother, grandfather, uncle, nephew.)
- Three or more relatives on the same side of your family have had breast or ovarian cancer. (This can include distant relatives such as cousins, great-grandparents, great-aunts and uncles.)

If the answer to any of these questions is “yes,” then you may be at increased risk for cancer. Talk with your doctor.

What gene causes breast cancer to be inherited?

Two genes cause an increased risk of breast cancer in families. These genes are called *BRCA1* and *BRCA2*. *BRCA1* is also found in some women with ovarian cancer. Women from Ashkenazi Jewish families are more likely than other women to carry *BRCA1*. Other genes may be discovered in future.

Should I have a test to find out if I carry the breast cancer gene?

Your doctor can help you decide if a gene test might be useful. Talking with your doctor about genetic testing, in light of your answers to the earlier questions, is the first step.

Research has shown that people have strong and different opinions about wanting to know if they carry the breast cancer gene:

- Some people want to know about their risk in detail—for these people, it can be upsetting if they are not provided with all the facts. Knowing, instead of wondering, helps them deal with the risk of breast cancer.
- Others prefer not to know, because knowing they have the breast cancer gene would be too hard to cope with. For these people, it may be upsetting if they are given too much information.

It is important to respect individual wishes.

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Before making a decision, think how you might react if the results show that you carry the breast cancer gene and are at risk of getting breast cancer. It is important that you know where you stand and that you let others know your wishes.

If your risk is increased, talking with your doctor or a genetic counsellor may also be helpful.

How can I reduce my risk?

The term “risk” means “chance” or “possibility” A higher “risk” of developing cancer does not mean that you are definitely going to develop cancer. Regardless of your family history, there are many positive actions that you can take to help reduce your risk:

- **Preventive measures** that can help reduce the chance of developing cancer later in life—lifestyle factors (such as tobacco use or diet) and exposures in your environment (such as too much sunlight or chemicals)
- **Surveillance measures** (e.g. mammography) that check your body for signs of cancer and other diseases as early as possible when it is more likely to be treated successfully.

Where can I get more information about the genetic risk of breast cancer?

You can contact the Canadian Cancer Society and speak with a cancer information specialist at 1-888-939-3333 for more information, or visit their website at <http://www.cancer.ca>. Included on this site is an excellent patient guide called *Hereditary Breast Cancer*. Find it by Clicking on: Canada-wide ⇒ Publications ⇒ Alphabetical List of Publications.

The American Cancer Society has a number you can call, 1-800-ACS-2345, or check their web site: <http://www.cancer.org>

The National Cancer Institute has detailed information on their website: <http://www.cancer.gov>

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