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

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### ***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 prove to 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 had cancer in both breasts.
- ' A closely related female relative had both breast and ovarian cancer.
- ' A closely related female relative of Jewish ancestry had breast or ovarian cancer.
- ' A closely related male relative had breast cancer. (This means father, son, brother, grandfather, uncle, nephew.)
- ' Three or more relatives on the same side of your family 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 for you. Talking with your doctor about genetic testing, in light of your answers to the earlier questions, is the first step. If you use the internet, check this website for more detailed information:

<http://www.ontario.cancer.ca/hereditarybreastcancer/>

*(continued on reverse)*

Research has shown that people have strong and different opinions about wanting to know if they carry the breast cancer gene and are at increased risk of getting breast cancer. Some people want to know about their risk in detail. Knowing, instead of wondering, helps them deal with the risk of breast cancer. Others prefer not to know, as knowing they have the breast cancer gene would be too hard to cope with.

It is important to respect individual wishes. For people who want to know details about their risk, it can be upsetting if they are not provided with all the facts. On the other hand, for people who do not want to know their risks, it may be upsetting if they are given too much information.

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 counselor may also be helpful.

### ***Taking action to reduce your 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. There are many positive actions that you can take to help reduce your risk—regardless of your family history. These are:

- ***preventive measures*** that can help reduce the chance that you may develop cancer later in life (lifestyle factors such as tobacco use and diet; exposures in your environment such as too much sunlight and chemicals); and
- ***surveillance measures*** that monitor and check your body for changes in your normal state of health to help find signs of cancer and other diseases (e.g. mammography) as early as possible when you are more likely to have it treated successfully.

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

Check this excellent website for more detailed information:

<http://www.ontario.cancer.ca/hereditarybreastcancer/>

You can also 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>. They provide links to other sources of information.

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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