Breast Cancer - Metaplastic - Risk Factors and Prevention [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 08/2014

ON THIS PAGE: You will find out more about the factors that increase the chance of developing this type of cancer. To see other pages, use the menu on the side of your screen.

A risk factor is anything that increases a person?s chance of developing cancer. Although risk factors often influence the development of cancer, most do not directly cause cancer. Some people with several risk factors never develop cancer, while others with no known risk factors do. However, knowing your risk factors and talking about them with your doctor may help you make more informed lifestyle and health care choices.

It is not known what factors raise a person's risk of metaplastic breast cancer specifically. However, like all types of breast cancer, it is more common in women older than 50. There are inherited genes linked with an increased risk of breast cancer, including metaplastic breast cancer. The most common are breast cancer genes 1 or 2. These are commonly shortened and referred to as *BRCA1* or *BRCA2*. In addition, new genetic changes, or mutations, are being identified that increase the risk of breast cancer, so it is important for women with strong family histories to seek genetic counseling [3] and consider genetic testing [4].

Prevention

Research continues to look into what factors cause this type of cancer and what people can do to lower their personal risk. There is no proven way to completely prevent this disease, but there may be steps you can take to lower your cancer risk. Talk with your doctor if you have concerns about your personal risk of developing breast cancer.

- For women with especially strong family histories of breast cancer, as well as those with *BRCA1* or *BRCA2* genetic mutations, prophylactic mastectomy may be considered. A prophylactic mastectomy is the preventive removal of the breasts. This appears to reduce the risk of developing breast cancer by at least 95%. These women may also consider a prophylactic oophorectomy, which is the removal of the ovaries, to reduce the risk of developing breast and ovarian cancer [5].
- Other ways to lower your risk of breast cancer include getting regular physical activity, staying at a healthy weight, and limiting the amount of alcohol you drink. Learn about more lifestyle changes to lower your risk of cancer [6].

Several breast cancer risk assessment tools have been developed to help a woman estimate her chance of developing breast cancer. The best studied is the Gail model (www.cancer.gov/bcrisktool [7]). After entering some personal and family information, the tool provides a five-year and lifetime estimate of the risk of developing invasive breast cancer. Because it only asks for information about breast cancer in first-degree family members, such as your mother or sister, and doesn?t include their age at diagnosis, the tool works best at estimating risk in women who don?t have a strong inherited breast cancer risk.

For most women, regular mammography and clinical breast examinations can help find early signs of breast cancer. In addition, women should become familiar with their own breasts. Many metaplastic cancers are found on self-examination, in between mammograms. Checking your own breasts for lumps and changes with breast self-examination may help if performed correctly. Talk with your doctor for more information.

Screening guidelines

Mammography [8] is the best tool doctors have to screen healthy women for breast cancer, as it has been shown to lower deaths from breast cancer. Like any medical test, mammography involves risks, such as additional testing and anxiety if the test falsely shows a suspicious finding; this is called a false-positive result. Up to 10% to 15% of the time, mammography will not see an existing cancer, called a false-negative result. Digital mammography may be better able to find cancers, particularly in women with dense breasts. A newer type of mammogram, called tomosynthesis or 3D mammography, when combined with standard mammograms may improve the ability to find small cancers and reduce the need to repeat tests due to false-positive results.

Different organizations have looked at the evidence, risks, and benefits of mammography and have developed different screening recommendations for women with an average risk of developing breast cancer:

- The U.S. Preventive Services Task Force (USPSTF) recommends that women ages 50 to 74 have mammography every two years. They recommend that mammography be considered in women ages 40 to 49 after evaluating the risks and benefits of this test with a doctor.
- The American Cancer Society (ACS) recommends yearly mammography beginning at age 40.

The controversy about screening mammography is related to the ability of early detection to lower the number of deaths from breast cancer. Breast cancers detected by mammography are often small, with a low risk of recurrence. In contrast, rapidly growing, aggressive cancers are more commonly found in between screening mammograms, are associated with worse chance of recovery, and are more frequently found in young women.

All women should talk with their doctors about mammography and decide on an appropriate screening schedule. For women at high risk for developing breast cancer, screening is recommended at an earlier age and more often than the schedules listed above.

The USPSTF and ACS also differ on their recommendations for women to receive a clinical breast examination, which is a physical exam of the breast done by a health professional. The USPSTF recommends a clinical breast examination along with mammography. The ACS

recommends a clinical breast examination every one to three years until age 40, then annually.

Finally, although breast self-examination has not been shown to lower deaths from breast cancer, it is important for women to become familiar with their breasts so that they can be aware of any changes and report these to their doctor. Cancers that are growing more quickly are often found by breast examination between regular mammograms.

Other ways to examine the breasts, such as ultrasound and magnetic resonance imaging (MRI), are not regularly used to screen for breast cancer. These tests may be helpful for women with a higher risk of breast cancer or when a lump or mass is found during a breast examination. According to the ACS, women with *BRCA* gene mutations, a strong family history of breast cancer, or precancerous changes on a biopsy have a higher risk of developing breast cancer and should receive regular MRI screening and mammography, usually in an alternating schedule. MRI may be better than mammography and ultrasound at finding a small mass in a woman?s breast, especially for women with very dense breast tissue. However, an MRI has a higher rate of false-positive results, which may mean more biopsies, surgeries, and other tests.

Ultrasound or MRI may also be used for women with a suspicious breast finding on physical examination or mammography. If a lump or mass is found during a physical examination, further testing is needed, even if the mammogram is reported to be normal. Women are encouraged to talk with their doctor about the method of screening recommended for them and how often screening is needed.

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Links:
[1] http://www.cancer.net/cancer-types/breast-cancer-metaplastic/risk-factors-and-prevention
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/node/24907
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