Breast Cancer - Prevention

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Prevention

Understanding your risk of breast cancer

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 [2]). After you enter some personal and family information, including race/ethnicity, the tool provides you with 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 (mother, sister) and doesn?t include their age at diagnosis, the tool works best at estimating risk in women without a strong inherited breast cancer risk. For some women, other ways of determining the risk of breast cancer may work better. It?s important to talk with your doctor about how to find out your personal risk of breast cancer.

Lowering your risk of breast cancer

No intervention is 100% guaranteed to prevent breast cancer. However, depending on a woman?s specific risk factors, there are options to lower the risk of developing breast cancer.

- For women with *BRCA1* or *BRCA2* mutations, a prophylactic mastectomy (preventive removal of the breasts) may be considered. This appears to reduce the risk of developing breast cancer by at least 95%. Women with mutations may also consider prophylactic salpingo-oophorectomy (preventive removal of the ovaries and fallopian tubes), which can reduce the risk of developing ovarian cancer, as well as breast cancer by stopping the ovaries from making estrogen.
- Women who have a higher than normal risk of developing breast cancer may consider chemoprevention (the use of drugs to reduce breast cancer risk). Two drugs, tamoxifen (Nolvadex, Soltamox) and raloxifene (Evista), are approved to lower breast cancer risk. These drugs are called selective estrogen receptor modulators (SERMs). A SERM is a medication that blocks estrogen receptors in some tissues and not others. Postmenopausal women and premenopausal women may take tamoxifen, whereas raloxifene is only approved for postmenopausal women. Each drug also has different side effects. Talk with your doctor about whether you may benefit from chemoprevention for breast cancer. Other drugs are being researched to help prevent breast cancer, including aromatase inhibitors and statins. Read more about drugs to reduce breast cancer risk [3].
- 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 choices that may help lower your risk of breast cancer [4].

Screening guidelines

Mammography [5] 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 possible tumor; this is called a false-positive. Occasionally (up to 10% to 15% of the time), mammography may miss a cancer, called a false-negative result. Digital mammography may be better able to find cancers, particularly in women with dense breasts.

Different organizations have looked at the evidence, risks, and benefits of mammography and have developed slightly different screening schedules:

- 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.

All women should talk with their doctors about mammography and decide on an appropriate screening schedule. For women with a higher risk of breast cancer, screening may be recommended at an earlier age or more often than the schedules listed above.

The USPSTF and ACS also differ on their recommendations for clinical breast examinations. 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. Sometimes a cancer that is growing more quickly can be found by breast examinations 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.

However, they may be helpful for women with a higher risk of breast cancer or when an abnormal change is found during an examination. According to the ACS, women at high risk for breast cancer (for example, women with *BRCA* gene mutations, a strong family history of breast cancer, or precancerous changes on a biopsy) should receive MRI screening and mammography, although not necessarily at the same time. 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 test results, which may mean more biopsies, surgeries, and other tests. In addition, an MRI does not show calcifications (tiny spots of calcium usually found on an x-ray), a sign of in situ breast cancer (DCIS).

Ultrasound or MRI may also be used for women with a suspicious breast change in a physical examination or mammography. If there are suspicious changes during a physical examination, further testing is needed, even if the mammogram is seen as normal. Women are encouraged to talk with their doctor about the method of screening recommended for them and how often screening is needed.

Links:
[1] http://www.cancer.net/about-us
[2] http://www.cancer.gov/bcrisktool
[3] http://www.cancer.net/node/25650
[4] http://www.cancer.net/node/24868
[5] http://www.cancer.net/node/24584