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Patient information: Breast cancer screening (Beyond the Basics)

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INTRODUCTION

Breast cancer screening includes tests to detect breast cancer at an early stage, before a woman discovers a lump. The chance of dying from breast cancer has declined by about a third over the past few decades. This is due, in part, to the use of breast cancer screening to find cancer at an earlier stage. Breast cancer is more likely to be cured when it is caught earlier.

This article discusses what breast cancer screening includes, when it should start, and how often it should be done. Women with a high risk of breast cancer, such as those with a genetic mutation in BRCA1 and BRCA2 and those who have multiple close relatives with breast cancer should review information about genetic testing and screening recommendations in higher risk individuals. (See <u>"Patient information: Genetic testing for breast and ovarian cancer (Beyond the Basics)"</u>.)

BREAST CANCER SCREENING METHODS

There are three main ways to screen for breast cancer: mammogram, breast exam with your doctor or nurse, and breast self-exam.

Mammogram — A mammogram is a breast x-ray. It is the best screening test for reducing the risk of dying from breast cancer. (See <u>"Breast imaging: Mammography and ultrasonography"</u>.)

Before the mammogram, you will be asked to undress from the waist up and wear a hospital gown. Each breast is x-rayed individually. The breast is flattened between two panels. This can be uncomfortable, but it only takes a few seconds. If possible, try to avoid scheduling your mammogram just before or during your menstrual period, when the breasts are more sensitive. Also, do not use underarm deodorant on the day of your appointment.

Mammogram results — A radiologist will review and interpret the mammogram. Sometimes the radiologist reviews the mammogram images while you wait. Some women will need to have

more images taken. Needing more images is common and does not usually mean that you have cancer. These extra images help the radiologist to have the most accurate and clear view of your breast tissue.

If the radiologist does not review your mammogram immediately, you should get a phone call or letter with your results within 30 days. If you do not hear back about your results, call your doctor or nurse's office. You should not assume that your mammogram was normal.

What if my mammogram is abnormal? — If your mammogram is abnormal, you will need further testing. In most cases, a woman with an abnormal mammogram does not have breast cancer. In 90 percent of women with an abnormal mammogram, breast cancer is **not** found.

Follow up testing after an abnormal mammogram is discussed separately. (See <u>"Patient information: Common breast problems (Beyond the Basics)</u>", section on 'Abnormal <u>mammogram</u>'.)

Breast exam by your doctor or nurse — Your doctor or nurse might perform a breast exam on a regular basis as part of breast cancer screening. During the exam, the doctor or nurse will look at the breasts and then carefully feel both breasts and the area under both arms.

Most expert groups recommend having a breast exam, along with a mammogram, starting at age 40 to 50.

Breast self-exam — Breast self-exam is a way of finding changes in your own breasts. No study has shown that breast self-exam reduces the risk of dying from breast cancer. Nevertheless, some women feel that doing breast self-exam on a regular basis improves their ability to find changes that would otherwise not have been noticed. Many expert groups encourage breast self-awareness, which includes education about risk factors for breast cancer and what to do if a breast abnormality is detected. Women who want to perform breast self-exams should still continue to get regular mammograms and breast exams by a doctor or nurse because they are better screening tests.

Instructions for performing a breast self-exam are provided here (<u>table 1</u>). The best time to perform breast self-exam is about one week after your menstrual period ends, when the breasts are least lumpy. If you do not have menstrual periods, you can pick one day each month.

Breast MRI — Magnetic resonance imaging (MRI) uses a strong magnet rather than x-rays to create a detailed image.

Compared to mammograms, breast MRI:

- Has more "false positive" findings (changes that are not breast cancer)
- May lead to more unnecessary biopsies in women who are not at high risk for breast cancer

Breast MRI may be recommended, in addition to mammography, to help find breast cancer in young women with a high risk for developing breast cancer (such as those with a very strong family history or a breast cancer gene) [1]. However, breast MRI is not recommended to screen for breast cancer in women who do not have a high risk of breast cancer.

BREAST CANCER SCREENING RECOMMENDATIONS

When to start mammograms — All expert groups agree that women age 50 and older should have screening for breast cancer (including a mammogram and a breast exam). There is controversy about use of mammograms among women in their 40s because on average, breast cancer is less common in the 40s while the chances of having an abnormal mammogram that must be worked up are higher.

- Some expert groups recommend starting mammograms at age 40 [2].
- Other groups recommend that women between ages 40 to 49 talk to their doctor or nurse about the risks and benefits of mammograms. Your decision to have or delay mammograms between ages 40 to 49 should be based on your individual preferences and risk of breast cancer [3].

How often to have a mammogram

- Women who choose to have breast cancer screening beginning at age 40 are usually screened once per year until age 50.
- After age 50, most expert groups recommend breast cancer screening every one to two years, depending on the woman's individual risk of breast cancer.

When to stop mammograms — Most expert groups recommend that women continue to get routine mammograms and clinical breast exams as long as the woman is expected to live at least 10 years. This is because the risk of developing breast cancer increases as women age. (See "Patient information: Factors that modify breast cancer risk in women (Beyond the Basics)".)

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (<u>www.uptodate.com/patients</u>). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

Patient information: Breast cancer screening (The Basics)Patient information: Breast cancer (The Basics)Patient information: Cancer screening (The Basics)Patient information: Common breast problems (The Basics)Patient information: Genetic testing for breast and ovarian cancer (The Basics)Patient information: Breast reconstruction after mastectomy (The Basics)Patient information: Choosing treatment for early-stage breast cancer (The Basics)Patient information: Ductal carcinoma in situ (DCIS) (The Basics)Patient information: Sentinel lymph node biopsy for breast cancer (The Basics)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

Patient information: Genetic testing for breast and ovarian cancer (Beyond the Basics) Patient information: Common breast problems (Beyond the Basics) Patient information: Factors that modify breast cancer risk in women (Beyond the Basics)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

Breast imaging: Mammography and ultrasonography Breast masses and other common breast problems Factors that modify breast cancer risk in women Genetic testing for hereditary breast and ovarian cancer syndrome BRCA1 and BRCA2: Prevalence and cancer risks for breast and ovarian cancer Screening for breast cancer: Strategies and recommendations

The following organizations also provide reliable health information.

• National Cancer Institute

1-800-4-CANCER (www.cancer.gov/cancertopics/pdq/screening/breast/Patient)

• National Library of Medicine

(www.nlm.nih.gov/medlineplus/mammography.html)

[<u>1-3</u>]

Literature review current through: Oct 2013. | This topic last updated: Aug 25, 2011.

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References

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- 3. <u>Nelson HD, Tyne K, Naik A, et al. Screening for breast cancer: an update for the U.S. Preventive</u> Services Task Force. Ann Intern Med 2009; 151:727.