

Mammography is an x-ray procedure that uses low-dose radiation to create an image of breast tissue. Mammography is the best way to find breast cancer early, because it can detect breast lumps up to two years before they can be felt. Finding a lump early significantly improves a woman's chance of successful treatment.

The American Cancer Society recommends that women receive a mammogram once a year after age 40. Women at high risk should have mammograms more often. Magnetic resonance imaging exams also are recommended for women at moderate-to-high risk. The risk of breast cancer increases as a woman ages, if she has never had children, or if she had her first child after age 30. Studies also suggest that the risk may be higher for women who eat high-fat diets and those who smoke cigarettes. If you are not sure how frequently you should obtain a mammogram, consult your physician.

It is important to remember that 80% of breast cancers occur in women with no risk factors. Breast cancer is the most common cancer among women in the United States, other than skin cancer, and the second leading cause of cancer death in women. The three steps to detecting breast cancer early are:

- Breast self-exams every month beginning at age 20.
- Clinical breast exams by a health care professional every three years between the ages of 18 and 39, and every year from age 40.
- Screening mammograms annually from age 40.

The federal government regulates the personnel, equipment and facilities involved in providing mammographic services. Under the Mammography Quality Standards Act, all facilities providing mammography exams must be certified by the U.S. Food and Drug Administration. The facility where you receive your mammogram is required to display an FDA certificate showing it has met the federal quality standards. To find a mammography center near you, call the Cancer Information Service at 800-4-CANCER or visit the FDA Web site at <http://www.fda.gov/cdrh/mammography/>.

Patient Preparation

Try to schedule your mammogram just after your menstrual period, when your breasts are less tender. Wear a two-piece outfit on the day of your mammogram, so you will have to remove only your top. Don't apply deodorant, talcum powder or lotion under the arms or near the breasts prior to the examination, because these products can show up on the x-ray image and may make it difficult to interpret. Be sure to bring the name, address and phone number of your primary care physician, as well as a list of the places and dates of mammograms you've had before.

Schedule at least 40 to 60 minutes for the exam, which includes time for preparation, checking the mammographic images and obtaining additional images, if necessary. The actual exposure time is very short.

Before your examination, a mammographer will explain the procedure to you and answer any questions you might have. A mammographer, also known as a radiologic technologist, is a skilled medical professional who has received specialized education in the areas of radiation protection, anatomy, patient care, radiation exposure, mammographic positioning and mammographic techniques. Be sure to let the mammographer know if you have experienced any changes in your breasts, especially if you have felt any suspicious lumps. Also let the mammographer know if you have had previous breast surgery or if you have breast implants.

During the Examination

The mammographer will ask you to



undress from the waist up and stand in front of the mammography unit, a special type of x-ray machine. She will place one of your breasts on a small platform attached to the machine. The platform can be raised or lowered to match your height. Your breast then will be gradually compressed between the platform and a clear plastic plate.

Compression spreads and thins the breast tissue. It is needed to ensure a clear picture and to reduce the amount of radiation necessary for the x-ray image. Two images will be taken of the breast, one from the top and one from the side. The examination then will be repeated for the other breast.

Compression may be uncomfortable, but it shouldn't hurt. The actual time of compression is only a few seconds. If you are worried about discomfort, tell your physician. You may be advised to take a mild over-the-counter pain reliever about an hour before your mammogram.

Following your mammography examination, you will be asked to wait a few minutes while the images are checked. The mammographer will determine if the images are technically acceptable and if additional views are necessary.

The mammography images then will be given to a radiologist – a physician who specializes in the diagnostic interpretation of medical images. Under federal regulations, the radiologist must be experienced in reviewing mammographic images.

Postexamination Information

After your images have been reviewed by a radiologist, your personal physician will receive a report of the findings. A report also will be sent directly to you, in language that is easy to understand, within 30 days after your examination.

The radiation that you are exposed to during a mammogram, like the radiation produced during any other x-ray procedure, passes through you immediately. If you have questions about the radiation associated with your exam, contact your doctor. ♦

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