

Your primary care provider may help decide which mammography is best for you based on your personal needs; however, you are welcome to ask the mammography technologist and radiologist if you have questions about the most appropriate exam for you. For more information about 2-D or 3-D mammography, contact any of the Dartmouth-Hitchcock locations below or visit d-h.org/mammography

**Dartmouth-Hitchcock Medical Center
Radiology ~ Breast Imaging Center**

One Medical Center Drive, Lebanon, NH 03756
(603) 650-8260

**Dartmouth-Hitchcock Manchester
Radiology**

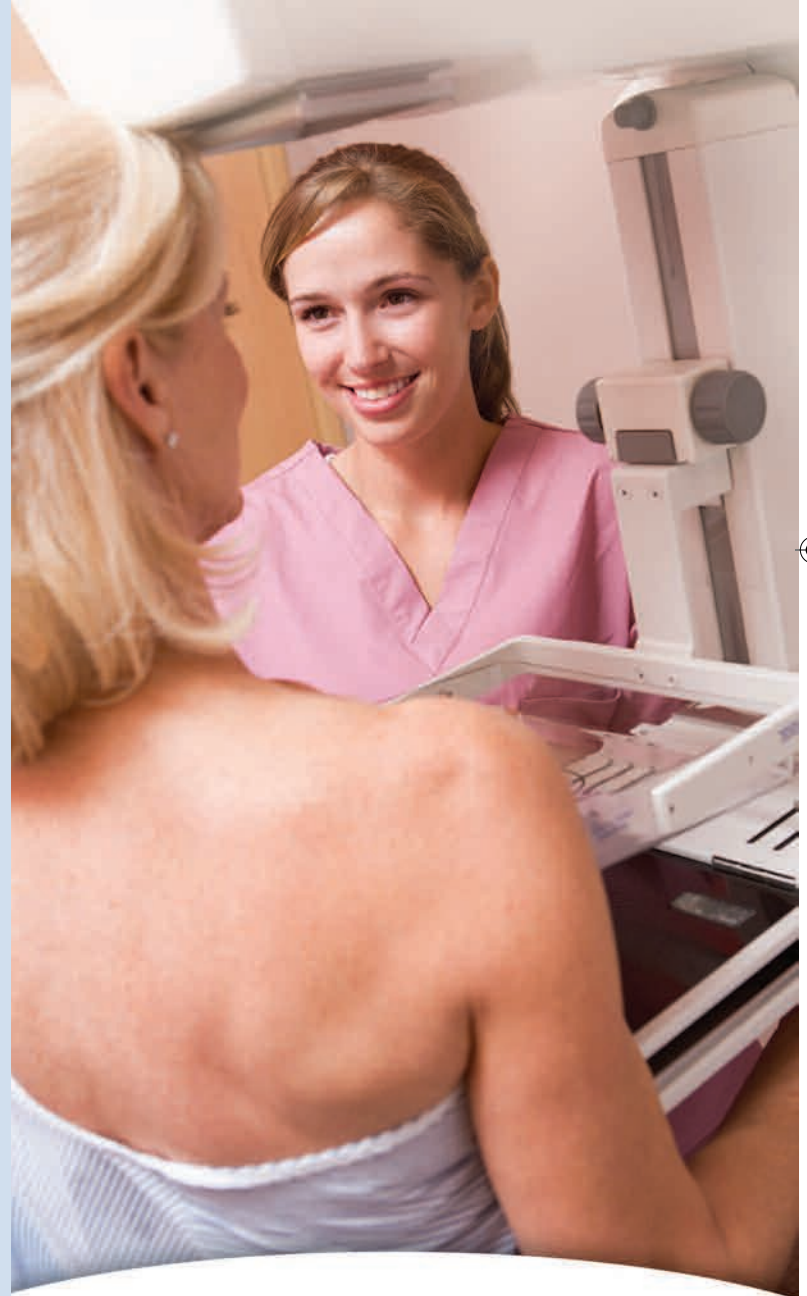
100 Hitchcock Way, Manchester, NH 03104
(603) 695-2850


**Dartmouth-Hitchcock Nashua
Breast Health & Imaging Center**

2300 Southwood Drive, Nashua, NH 03063
(603) 577-4070

Mammography

2-D & 3-D Breast Exams



 **Dartmouth-Hitchcock**
d-h.org/mammography

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What is a mammography breast exam?

A mammogram is an X-ray examination of the breasts used to detect breast diseases. It is a safe procedure that uses a very low dose of radiation to detect early breast cancer that may be too small or subtle to be felt during breast self-exams. Mammography plays a critical role in the early detection of breast cancer and has been shown to decrease death from breast cancer by approximately 25 percent. It also benefits women because breast cancer discovered by mammography is less likely to need intensive treatments, such as mastectomy (removal of the breast) or chemotherapy.

Dartmouth-Hitchcock offers the latest breast health services and mammography breast exams, including 2-dimensional (2-D) digital mammography and 3-dimensional (3-D) digital breast mammography tomosynthesis in Lebanon, Manchester and Nashua, NH. Dartmouth-Hitchcock Medical Center was one of five academic institutions that developed and tested the 3-D technology, which led to its approval by the Food and Drug Administration. Dartmouth-Hitchcock was also the first hospital in New Hampshire to offer 3-D digital mammography.

When should you have a mammogram?

Since there are different national recommendations and guidelines for when women should have a baseline (first-time) screening mammogram, Dartmouth-Hitchcock encourages you to consult with your primary care provider to determine the most appropriate time for your screening. How often you have a mammogram may depend on your age, family history, risk for breast cancer and overall health. Screening mammography does not require a physician referral and is covered by most insurance companies.



Mammography exams:

2-D mammography

In 2-D digital mammography, a low dose X-ray beam shines through the breast and exposes a digital image receptor to create a digital image, similar to the working of a digital camera. This 'image' is viewed

2-D digital mammography is the current standard breast exam imaging for most women.

on a computer monitor by a mammography technologist in a matter of seconds. The images are then sent electronically for the radiologist to interpret.

3-D mammography

3-D digital mammography is a revolutionary new breast imaging exam that improves the accuracy of mammography. 3-D digital screening mammography is done in combination with a traditional 2-D digital mammography exam. 3-D mammography may be used as the only imaging technique for 'diagnostic' mammography such as to evaluate a 'callback' abnormality from a screening or a breast lump.

Benefits of 3-D mammography:

- **Earlier detection** of breast cancers that may otherwise be hidden by overlying tissue.
- **Greater accuracy** in identifying the shape and location of abnormalities.
- **Fewer false alarms (callbacks)** by recognizing overlapping normal breast tissue or noncancerous abnormalities in the breast.

3-D mammography is most beneficial for first-time mammograms, for those whose previous test results weren't clear, and for those whose breasts are considered radiographically dense. These exams are offered at our Lebanon, Manchester and Nashua locations.

Is there a difference in exams?

Having a 3-D mammogram is very similar to having a 2-D mammogram; however, with 3-D mammography the X-ray tube moves and a series of mini X-ray exposures is obtained, creating a digital data set, which is then

reconstructed into one millimeter thick slices, or layers. The radiologist views each individual layer of breast rather than a shadow of the entire breast. As a result, the radiologist can detect breast cancer that is hidden by overlying tissue and recognize abnormalities that may mimic cancer and lead to a false alarm or unnecessary callback.

3-D mammography has the same X-ray dosage as a 2-D mammogram. For women having the combined 2-D/3-D exam there is approximately twice the X-ray dose as a 2-D (or 3-D) mammogram alone. For all mammography we use the lowest radiation dose possible while producing the best images for evaluation.