

3D MAMMOGRAPHY: A SNAPSHOT

Hologic's 3D mammography (breast tomosynthesis) technology is a game-changer in breast cancer screening – detecting cancers earlier, when they are easiest to treat.ⁱ

With 3D mammography doctors can see breast tissue detail in a way never before possible. Instead of viewing all the complexities of breast tissue in a flat image, the doctor can examine the tissue in thin (1 millimeter) slices. Fine details are more clearly visible, no longer hidden by the tissue above and below.

The Oslo Tomosynthesis Screening Trial, a large-scale clinical study involving over 12,000 women, found a significant increase in cancer detection rates, particularly for invasive cancers, and a simultaneous decrease in false-positive rates compared with 2D mammography alone.ⁱ Significant findings include:

- A 40% increase in the detection of invasive breast cancers
- A 27% increase in the detection of all cancers (invasive and in situ cancers combined)
- A 15% decrease in false-positive recalls

Other studies have also found that 3D mammography increases diagnostic accuracy and reduces unnecessary call backs. Masses, distortions and asymmetric densities are better visualized with 3D mammography, giving doctors the confidence to significantly reduce recall rates.^{ii, iii, iv}

In February 2011, Hologic became the first and so far, only manufacturer to receive FDA approval for 3D mammography. This best-in-class technology is available in 48 states and counting, as well as more than 50 countries. Doctors say 3D mammography is the most important advance in breast cancer screening in decades. The Cleveland Clinic recently named the technology among the top 10 medical breakthroughs for 2013.^v

More information on 3D mammography as well as a 3D mammography site finder can be found at www.Hologic3D.com and www.BreastTomo.com.

ABOUT HOLOGIC

Hologic, Inc. is a leading developer, manufacturer and supplier of premium diagnostic products, medical imaging systems, and surgical products. With a comprehensive suite of technologies and a robust research and development program, Hologic is committed to improving lives. For more information, visit www.Hologic.com

ⁱ Skaane, Per, et. Al. "Comparison of Digital Mammography Alone and Digital Mammography Plus Tomosynthesis in a Population-based Screening Program." *Radiology*, January 7, 2013

ⁱⁱ Bernardi D, Ciatto S, Pellegrini M, Tuttobene P, Fanto' C, Valentini M, Michele SD, Peterlongo P, Houssami N. Prospective study of breast Tomosynthesis as a triage to assessment in screening. *Breast Cancer Res Treat*. 2012 Jan 22.

ⁱⁱⁱ Gur D, Sumkin J, Zuley M, Anello M, Catullo V, Chough D, Cohen C, Ganott M, Hakim C, Hoffman W, Shah R, Shinde D. Recall Rate Reduction with Tomosynthesis during Baseline Examinations: Preliminary Assessment from a Prospective Screening Trial. Presented at RSNA 2011, MSVB31-08 Breast Series: Emerging Technologies in Breast Imaging.

^{iv} Rafferty EA, Park JM, Philpotts LE, Poplack SP, Sumkin JH, Halpern EF, Niklason LT. Assessing radiologist performance using combined digital mammography and breast tomosynthesis compared with digital mammography alone: results of a multicenter, multireader trial. *Radiology*. 2013 Jan;266(1):104-13. doi: 10.1148/radiol.12120674.

^v <http://www.youtube.com/watch?v=zBhAtGzaFbI>