GE Healthcare

Look differently.

Invenia ABUS

Automated Breast Ultrasound

Invenia™ ABUS

from GE Healthcare offers a

view beyond mammography,

with breast screening technology

that looks differently.

The unseen risk.

Having **dense breasts** increases a woman's likelihood to develop cancer four to six times.[1]

Which makes it challenging to detect breast cancer with mammography alone.

This is a significant problem. Over 40% of women in the United States have dense breast tissue,[2] which can mask the appearance of tumors and limit the performance of mammography. As breast density increases, the accuracy of mammograms decrease.

[1]Boyd, et al, NEJM Jan 2007.
[2]Pisano et al. Diagnostic Performance of Digital versus Film Mammography for Breast – Cancer Screening. NEJM 2005;353:17735

Too many tumors are missed.

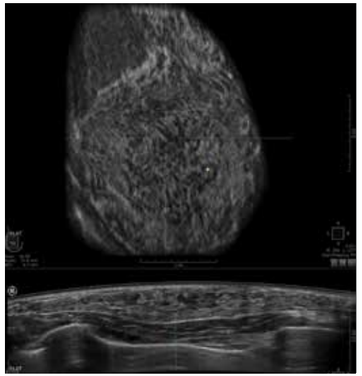
For a woman with dense breasts, screening with mammography just isn't enough.

Mammography may miss over 1/3 of cancers in dense breasts.[3] When it is warranted to look beyond mammography, there now is a screening technology that can effectively detect cancer to deliver confidence and peace of mind.

[3]Mandelson et al. Breast density as a predictor of mammographic detection: comparison of interval- and screen-detected cancers. J Natl Cancer Inst 2000; 92:1081–1087.

Enhanced detection.

Imaging dense breasts with the Invenia ABUS can find cancers mammography misses.



GE Healthcare is the sole provider of FDA-approved technology designed for screening women with dense breast tissue. Invenia ABUS has demonstrated a 55% relative increase in invasive cancer detection* over mammography alone for women with dense breasts.[4]

Multiple clinical research studies[4] demonstrate that when used as an adjunct to mammography, Invenia ABUS can detect invasive, node-negative cancers.

Lateral view of right breast:
Navigation with the coronal plane efficiently highlights potential abnormalities and streamlines the screening workflow. Superior detail and contrast resolution provides exceptional visualization within dense breast tissue.

*Increase in sensitivity was associated with a decrease in overall specificity.

[4]Brem RF, Tabár L, et.al. Assessing Improvement in Detection of Breast Cancer with Three-dimensional Automated Breast US in Women with Dense Breast Tissue: The SomoInsight Study. Radiology. 2015 Mar; 274(3): 663-73.

Designed for screening.

From its remarkable architecture to its advanced imaging algorithms, Invenia ABUS is engineered for automated screening.

Powerful Imaging Architecture

Invenia ABUS's imaging architecture shifts traditional ultrasound from hardware- to software-based processing, resulting in extraordinary performance for the fast-paced breast imaging environment. With its massive parallel processing power and proprietary beamforming technology, the system creates focus at every pixel, delivering an image of high uniformity and resolution.

Intelligent Imaging Algorithms

Advanced algorithms automate the imaging process to help provide remarkable image quality and reproducibility from user to user.

Tissue Equalization Algorithm uses local gradient information to enhance edges and overall system gain, especially within the dense tissue of the nipple and areola complex.

Nipple Shadow Compensation adjusts the signal level under the nipple to be similar to the surrounding area for enhanced visualization.

Breast Border Detection estimates the boundary between breast tissue and the background to mask out non-tissue, high-noise areas – especially important for 3D and coronal imaging.

Chest Wall Detection algorithm detects the chest wall surface based on the breast tissue recognition to eliminate pixels under the surface. In combination with breast border detection, only pixels in the breast tissue area are used for visualization.

User-Friendly Touchscreen

Operator workflow is smooth and easy with the Invenia ABUS high-resolution touchscreen display with advanced Projective Capacitive Touch (PCT) technology. Its sleek, graphical user interface enhances the way you work. Tap and swipe colorful icons to quickly and easily maneuver through the Invenia ABUS exam.

Shaped for a woman's anatomy.

Gently curved to follow the natural contour of the breast.

The Reverse-Curve™ transducer enhances both patient comfort and breast coverage during the exam.

The 15 cm wide field-of-view transducer maintains uniform compression across the entire breast for consistent, reproducible image quality independent of the operator.

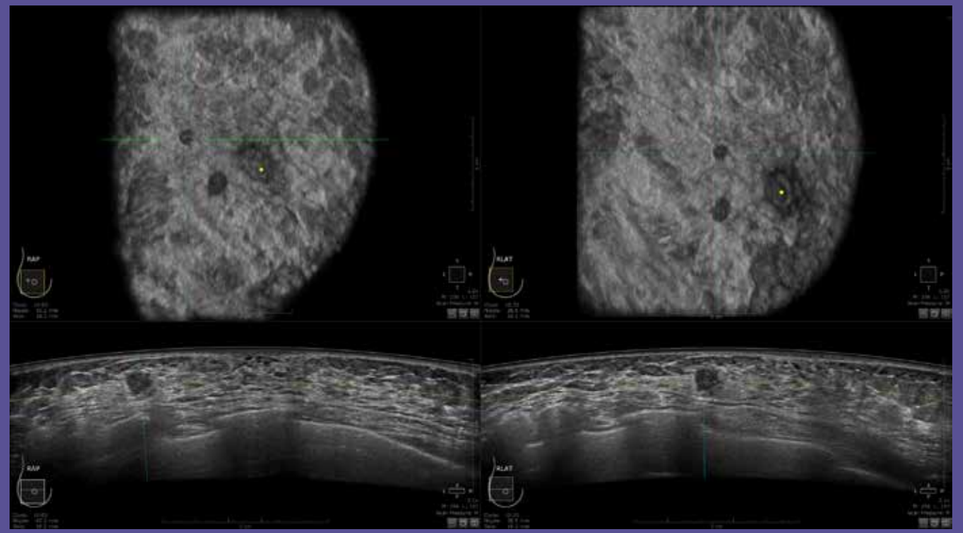
The convergent scan line geometry minimizes beam refraction. The result is deep penetration, sharp focus, resolution at depth and enhanced anatomical detail of complex breast tissue and structures.

Compression Assist
Automatically applies compression to the breast for patient comfort, operator ease and image acquisition quality.

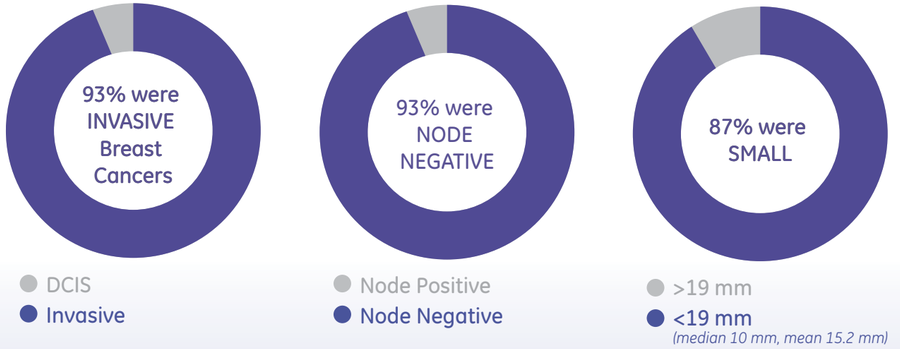
A comfortable and comforting exam.

Invenia ABUS helps deliver greater clarity and peace of mind for patients and providers alike — all via a simple, automated procedure that provides a comfortable, non-ionizing alternative to other supplemental screening options.

The evidence is in the images.



Multi-planar and multi-volume correlation between the left anterior-posterior and left medial views allows for efficient and concise confirmation of this ill-defined mass.



Multiple clinical research studies demonstrate that radiologists can detect more cancers at an earlier, more treatable stage when using ABUS as an adjunctive screening tool with mammography. Ninety-one percent of ABUS-detected cancers with normal or negative mammography were pathologically confirmed as invasive, in this asymptomatic screening population of women with dense breast tissue and no prior breast interventions. The majority of these invasive malignant lesions were also small and node negative.

Study results compiled from USI, 20082002, clinicaltrial.gov NCT00816530 data

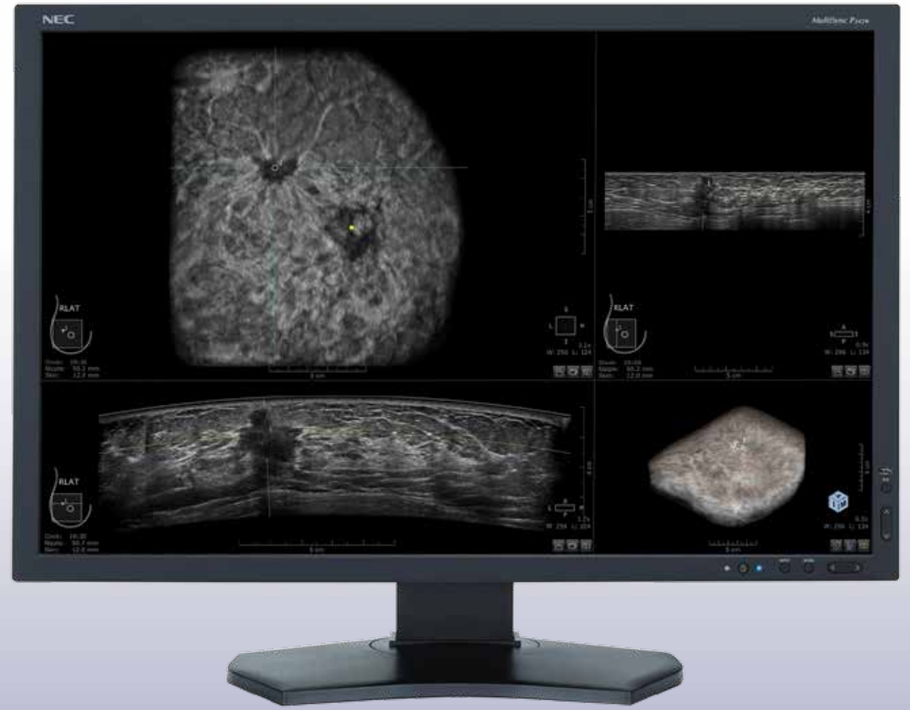
Source: Brem RF, Tabár L, et.al. Assessing Improvement in Detection of Breast Cancer with Three-dimensional Automated Breast US in Women with Dense Breast Tissue: The SomoInsight Study. Radiology. 2015 Mar; 274(3): 663-73.

A fast, efficient flow.

Designed for fast, efficient breast ultrasound workflow, Invenia ABUS review software displays 3D volumes in a patented, 2-mm-thick coronal slice from the skin to the chest wall. You can review, quickly interpret and archive patient exams.

The Invenia ABUS review software provides intelligent tools for analysis and for efficient reading and reporting workflow. The system is DICOM® 3.0 compliant and integrates with other imaging information systems and repositories.

The customizable, DICOM.pdf formatted report automatically includes captured images, annotations, and 3D lesion location (clock position, distance from skin and from nipple).



Support beyond technology.

Customizable Marketing Tools

Clinically researched and professionally designed marketing tools help you promote Invenia ABUS screening to referring physicians, their patients, and women in your community. Use the customizable templates to inform referring physicians about how Invenia ABUS improves early cancer detection for their patients. Increase women's knowledge about breast density with patient education tools such as brochures, posters and videos. Market to your community with social media, press releases and other templates to help grow awareness.

Comprehensive Education and Training

The Invenia ABUS Mastery Program uses progressive teaching techniques led by our experienced team of peer educators and clinical applications specialists. The program is dedicated to the rapid development of diagnostic confidence to quickly build the clinical skills and experience necessary to effectively use Invenia ABUS.

Comprehensive Service Solutions

Our dedicated field service engineers, online engineers and online applications specialists make it their mission to maximize your asset performance. Additionally, with the InSite™ EXc option, users have access to a suite of service support tools that allow for remote diagnostics and technical assistance.

To support your total cost-of-ownership goals, a variety of flexible service offerings are available.

ABUS Club

ABUS users are invited to join this online community that offers resources to help implement and grow their ABUS service line. *www.abusclub.net*

Growing awareness.

For the 4 out of 10 women with dense breasts, screening with Invenia ABUS provides an additional option for breast care.

Invenia ABUS can find the cancers mammography misses, supporting early detection for better patient outcomes.


Invenia ABUS
Look differently.

To learn more about Invenia ABUS, visit gehealthcare.com/inveniaabus, call (866) 281-7545 or scan the QR code.

Brief Statement

The Invenia ABUS is indicated as an adjunct to mammography or breast cancer screening in asymptomatic women for whom screening mammography findings are normal or benign (BI-RADS® Assessment Category 1 or 2), with dense breast parenchyma (BI-RADS Composition/Density C or D), and have not had previous clinical breast intervention. The device is intended to increase breast cancer detection in the described patient population. The Invenia ABUS may also be used for diagnostic ultrasound imaging of the breast in symptomatic women. See the device manual for detailed information, contraindications, warnings, precautions, potential adverse events.

Imagination at work

www.gehealthcare.com. Product may not be available in all countries and regions. Contact a GE Healthcare Representative for more information.

Data subject to change.

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