

GE Healthcare

# Discovery\* NM750b

Making advanced breast diagnostics  
affordable, accessible & comfortable



A GE dedicated molecular breast imaging device that's sensitive enough to detect even tiny tumors.

In an ideal world, breast imaging would work for every patient, every time, avoiding unnecessary scans or biopsies, without discomfort or pain.

The Discovery NM750b Molecular Breast imaging system from GE Healthcare was designed to help enable you to make critical contributions to breast-cancer care, from diagnosis and planning through treatment monitoring. It provides consistently high sensitivity, even in patients with dense breasts, in a highly efficient and affordable device.

Leading-edge, solid-state Cadmium Zinc Telluride (CZT) detectors are the primary enabler of this compact device, allowing you to image the breast up close, right up to the chest wall, in standard mammographic views.

Best of all, the Discovery NM750b is both patient and user friendly. It requires only light immobilization pressure, and offers efficiency in support functions from image sharing through calibration.



## Discovery NM750b applications\*\*

- Equivocal exams
- Dense-breast diagnosis
- Monitoring for recurrence
- Evaluating the extent of disease (initial staging)
- Detecting multi-centric, multi-focal, or bilateral disease
- Assessing response to neoadjuvant chemotherapy
- Limited mammogram
- Indeterminate breast abnormalities and remaining diagnostic concern
- Breast implants
- Surgical planning for residual disease

\*\*SNM Guideline for Breast Scintigraphy with Breast-Specific Gamma Camera, Version 1.0 Published June 4, 2010

<http://tech.snmjournals.org/cgi/content/full/38/4/219>

## Remarkable image quality

Functional changes precede anatomical changes, that's why functional imaging can be critical in cancer diagnosis. However, traditional gamma cameras were too large to detect tiny tumors in the breast. With CZT, our detectors are so compact that they can image up close, providing major improvements in lesion detection.

CZT provides outstanding image quality:

- Improved intrinsic resolution compared to traditional gamma camera
- Spatial resolution better than 5 mm FWHM throughout the imaging volume
- Up to triple the sensitivity of conventional nuclear detectors
- Degradation-free uniformity across the entire 24x16-cm FOV, right up to the edges

And that translates into significant enhancement in lesion detectability. In a clinical trial in a high risk dense breast population, MBI technology outperformed mammography in early detection and in finding more cancers; thus the need for multiple exams was reduced.\*

\*Carrie B. Hruska, Stephan W. Phillips, Dana H. Whaley, and Michael K.O'connor, Dedicated Dual-Head Gamma Imaging for Breast Cancer Screening in Women with Mammographically Dense Breasts, Radiology 100625; Published online November 2, 2010, doi 10.1148/radiol.1010062 <http://radiology.rsna.org/content/258/1/106.abstract>

## Affordable and Accessible Solution

Even in its standard, single-detector configuration, the Discovery NM750b can deliver exceptional performance. The dual-detector configuration allows you to double the data collected for even better lesion detection – or to reduce either scan time or dose.

What's more, we've provided an upgrade path that gives you the option to change the configuration, from single-detector to dual-detector configuration, to best fit your needs even as they change.

It is easy to site, requiring less than 135 square feet (12.5 square meters), with no special shielding required and minimal maintenance requirements.

It is also accessible, as even patients with mammography or MR contraindication (silicon or metal implants, claustrophobia etc.) can be scanned. Moreover, the Tc99m Sestamibi tracer is widely available.

## Patient comfort

Whether they prefer to sit or stand during the scan, the Discovery NM750b can help make your patients as comfortable as possible. It requires only light immobilization pressure to keep the patient still for optimized image quality.

It also accommodates same-day care, allowing the scan to proceed immediately after tracer injection, without the need for fasting or uptake delays. That's turn-around that any patient or referring physician will appreciate.

## User Friendly

The Discovery NM750b is designed to be user friendly. At the touch of a button, it duplicates mammography's CC, MLO and LAT views, enhancing correlation with the screening exam.

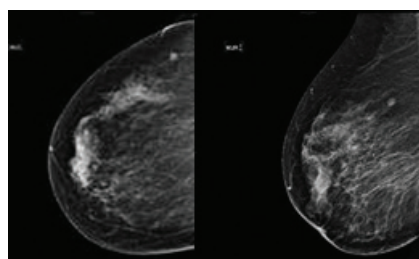
In addition, images obtained from the Discovery NM750b are easily interpreted – only one or two images per view with low background. Full DICOM compatibility makes them equally easy to archive and network. Moreover, the Discovery NM750b is designed for easy calibration and operation.

## More Information

The Discovery NM750b can help you provide your patients with exceptional breast care. If you believe the Discovery NM750b may be the right choice for your facility, please contact your GE representative for additional details.

## Assessing the extent of disease in the breast

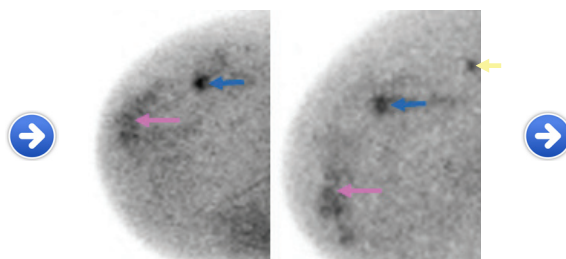
Age: 56 year old patient



cc

oblique

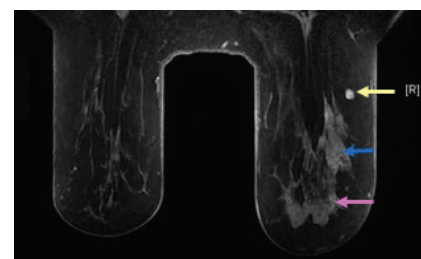
**Routine mammography:** Fibroglandular and fatty tissue, small intra-mammary LN. Denser tissue behind the nipple, unchanged compared to last year study, when it was reported as benign but found as fibrocystic changes and DCIS on U/S-guided biopsy.



cc

oblique

**MBI:** In addition to uptake at the region of DCIS (pink arrow) and LN (yellow arrow), another site of increased uptake was detected (blue arrow), diagnosed as ILC. The LN was only reactive.



**MRI:** performed in view of the MBI findings  
DCIS (pink arrow)  
Reactive LN (yellow arrow)  
ILC (blue arrow)

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## About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at [www.gehealthcare.com](http://www.gehealthcare.com).

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imagination at work