

TOSHIBA
Leading Innovation >>>



RADIANCE PLUS
B R E A S T M R

LEADING THE WAY
IN MR BREAST IMAGING

Meeting the need for improved visualization.

Physical examination and mammography have significantly increased early detection and greatly improved outcomes for patients with breast cancer – the leading cause of cancer-related death among women.

Recent studies have revealed that breast MR can identify smaller tumors sooner,¹ and detect tumors in one breast that mammography missed 90 percent of the time following an initial diagnosis in the other.² Consistent with these findings, the American Cancer Society now recommends that women with a 20-25% lifetime risk of breast cancer receive a breast MR exam annually.³



“By using the Toshiba MR system and Sentinelle coil together, the clinical image quality is outstanding. It’s incredible the amount of resolution we are now able to see. We’re able to see even the smallest lesions.”

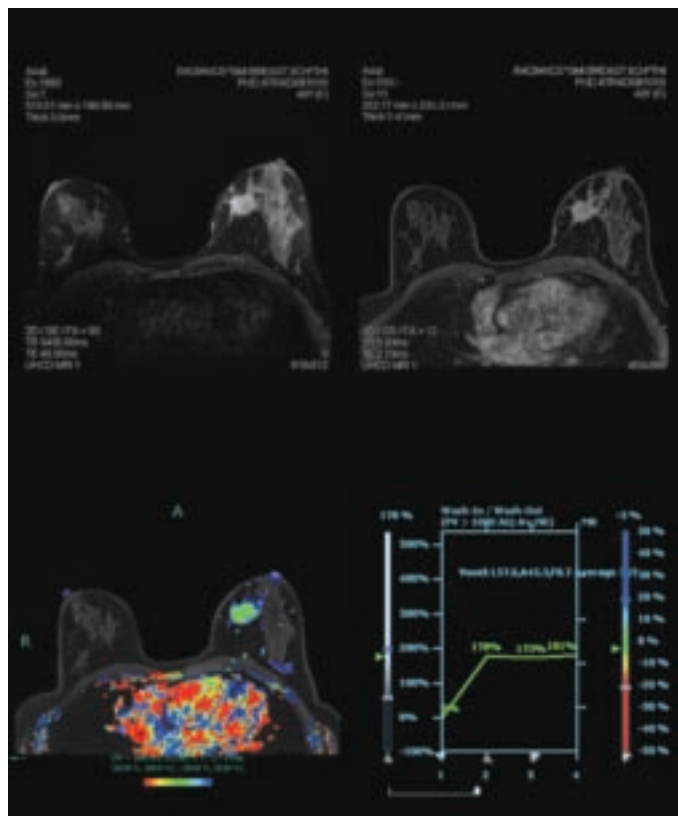
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**OPTIMIZING OPPORTUNITIES
FOR EARLY INTERVENTION**

Breast MR has become the fastest growing subspecialty in MR today, with a 40% annual increase in examination requests recently reported.⁴ Viewed as an adjunct rather than a replacement for mammography, breast MR can greatly increase physician confidence and improve patient care with the ability to:

- Determine the location and extent of the disease with greater precision
- Improve detection in dense or augmented breasts that obscure visualization with mammography
- Resolve questions regarding smaller lesions and inconclusive mammograms
- Screen high-risk patients and patients under age 40 without radiation
- Monitor treatment response and identify residual and recurrent cancer
- Use contrast material as an option to enhance visualization of abnormalities



High-resolution dynamic data provides detailed information for clinicians to identify suspect regions.

The ultimate combination for breast MR.

Enhancing the potential of MR for early detection, Toshiba's Radiance Plus Breast Imaging package combines unique breast coil technology with proprietary examination techniques. By boosting signal strength up to 30%, lesions as small as 3 mm can be detected, facilitating faster diagnoses and more timely treatment decisions.

SENTINELLE BREAST SPEEDER COIL

- Bilateral, dedicated, eight-element Sentinelle Breast SPEEDER coil provides high temporal and spatial resolution for dynamic analysis and lesion characterization
- Unique Variable Coil Geometry allows imaging coils to be optimally positioned for all patients
- 30% more SNR provides higher resolution images

Dedicated, multi-element Sentinelle breast SPEEDER coil provides high-resolution images of the breasts and surrounding tissues.



VANTAGE POWERED BY ATLAS

Toshiba's innovative 1.5T MR system, featuring Atlas technology, is designed to accommodate a wider range of patients more comfortably, improve operator ease of use and productivity, and increase clinician confidence in making diagnostic decisions. With the addition of the Radiance Plus Breast Imaging package, these same benefits can be extended to accommodate the rapidly growing demand for breast MR.

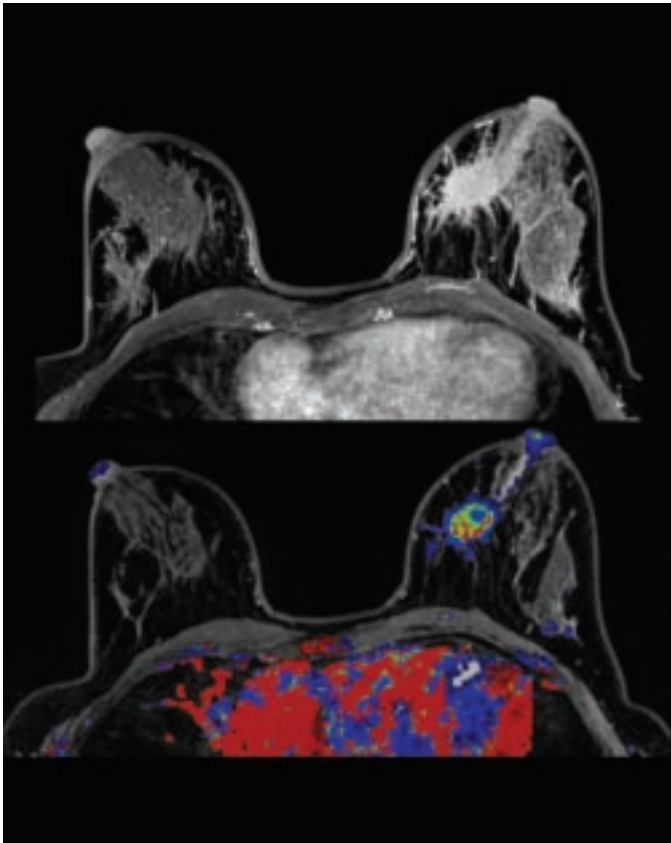
- Industry-leading magnet homogeneity
- Patented Pianissimo technology reduces acoustic noise by up to 90%, addressing the number one patient complaint with the quietest system available
- CAD compatibility reduces time required to interpret images and makes biopsy planning easier for clinicians by automating data analysis



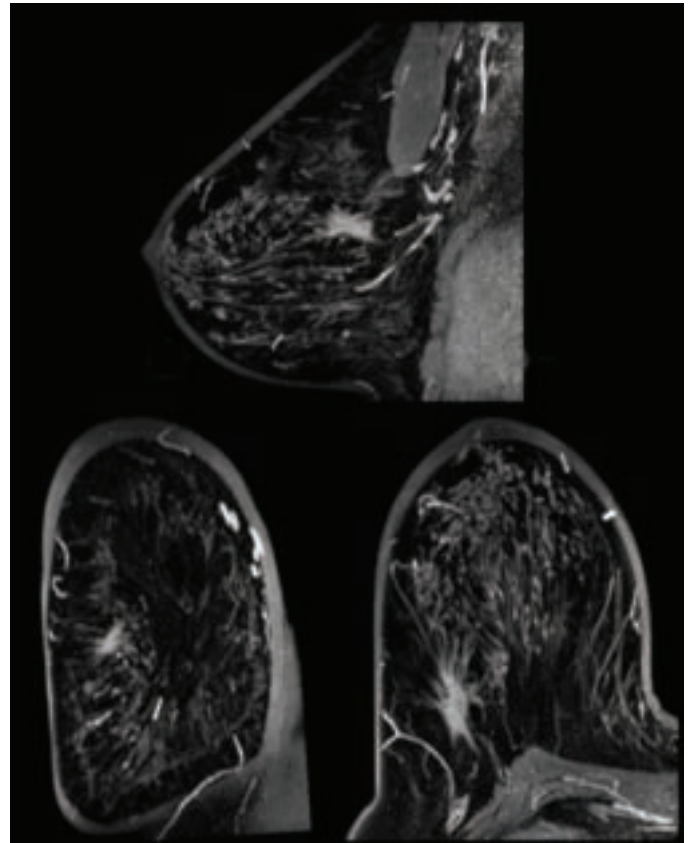
Patient-focused features include state-of-the-art ergonomics that comfortably accommodate patients of all sizes and allow arms to be positioned above their head or at their sides.

The complete solution for advanced breast MR imaging.

Advanced sequences available with the Radiance Plus Breast Imaging package combine morphologic and dynamic imaging techniques to provide comprehensive implant and cancer diagnostic capabilities. These options include Quick 3D imaging, Fat Free imaging, silicone-only imaging, water-only imaging and high-resolution dynamic axial and sagittal techniques. Utilizing Toshiba's Enhanced Fat Sat technique, they produce equal signal strength throughout all breast tissue regardless of size, shape or fat concentration.



CAD post-processing of high-resolution dynamic data continues to aid radiologists in detection and characterization of suspect tissue.



Multiplanar reconstruction of suspect lesion gives clinicians better understanding of localized involvement.

TECHNICAL SPECIFICATIONS

Compatibility

- 1.5T Vantage Atlas
- 1.5T Vantage Titan

Interventional Access

- Variable Coil Geometry
- Lateral approach accessibility for biopsy
- Medial approach accessibility for biopsy
- Bilateral intervention capability

Patient Accommodation

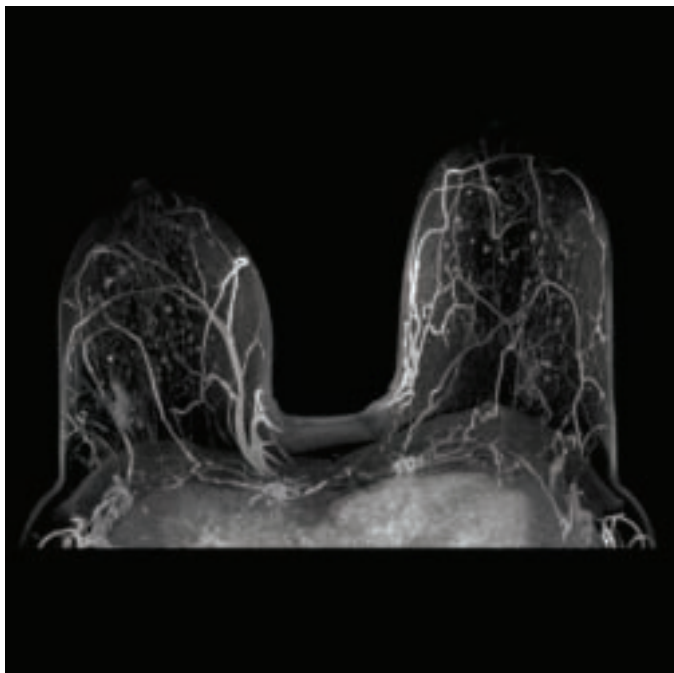
- Positioning of arms forward or at the sides
- Adjustable head rest
- Patient pads: 9 with memory foam
- Patient weight up to 440 lbs.
- Feet-first imaging for additional patient comfort

Imaging Capabilities

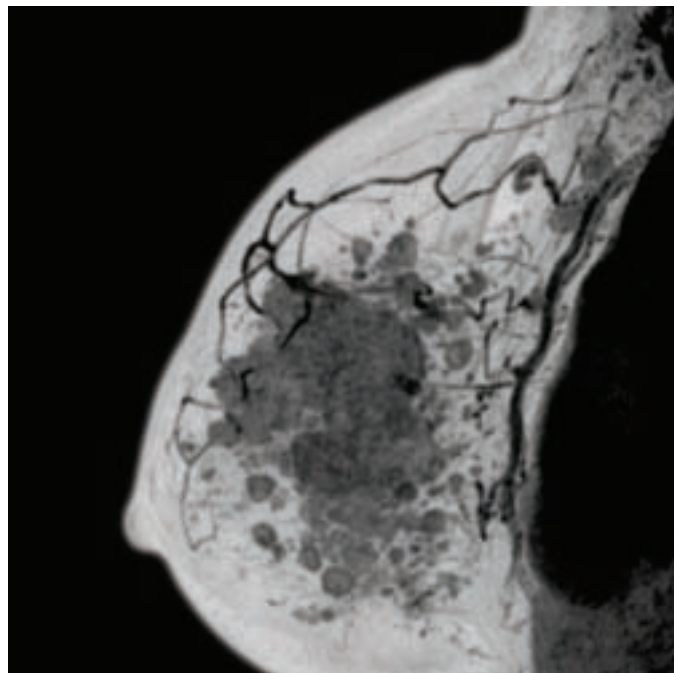
- Eight-element coil design
- Sub-millimeter isotropic voxels
- Bilateral imaging
- Diffusion weighted imaging

Upgrade Path

- Modular design allows easy replacement of coil elements for future upgrades and protection of your investment



Dynamic high-resolution MIP shown with specialized fat suppression technique.



High-resolution, sagittal dynamic breast study with enhanced fat saturation and increased SPEEDER factors delivers unsurpassed resolution.

For over 130 years, Toshiba has been a world leader in developing technology to improve the quality of life. Our 50,000 global patents demonstrate a long, rich history of leading innovation. It might surprise you to learn about some of the things we've invented.

1915 First X-ray tube	1997 First open, superconducting magnet
1954 First digital computer	1998 First quiet MRI
1978 First cardiac ultrasound scanner	1999 First 0.5 mm multislice CT
1985 First slip ring CT scanner	2005 Third generation of non-contrast MRA techniques
1986 First laptop computer	2006 Fourth generation of non-contrast MRA techniques
1989 First helical CT scanner	2007 First whole organ CT scanner

AWARD-WINNING SERVICE AND SUPPORT

Developed with customer input, Toshiba's innovative support programs have resulted in greater satisfaction when using Vantage products as reflected in customer surveys time after time.

InTouch Center™

A centralized service facility that provides applications and service support expertise for Vantage customers 24 hours-a-day, seven days-a-week.

InnerVision® Plus

Monitored around the clock at the InTouch Center, remote system diagnostics help identify problems and provide potential solutions before care is interrupted or an engineer can arrive.

InTouch Agreements

Tailored to meet specific customer requirements, these range from an a la carte approach that helps manage risk to full security agreements that provide complete system protection.

Technical Assistance

Customer support specialists are available 24/7 to identify and resolve technical issues in real time. Application specialists are also on hand to assist staff with protocol and image quality issues.

Local Customer Teams

A single call mobilizes a local team of Toshiba Customer Engineers. Averaging 10 years of experience with Toshiba and 105 hours of specialized training per year, they can quickly resolve almost any performance issue.

Parts Support

A complete inventory of Vantage product parts is ready for shipment when and where they're needed, any time day or night.

References

1. Efficacy of MRI and mammography for breast-cancer screening in women with a familial or genetic predisposition: N Engl J Med 2004; 351:427-437, 2004.
2. Investigation of the safety of MRI contrast medium Omniscan, May 29, 2006,
3. Lehman CD, Gatsonis C, Kuhl CK, et. al.; MRI evaluation of the contralateral breast in women with recently diagnosed breast cancer. N Engl J Med 2007; 356: 1295-303.
4. American Cancer Society Guidelines for Breast Screening with MRI as an Adjunct to Mammography. CA Cancer J Clin 2007; 57:75-89.



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