PHILIPS

Ultrasound

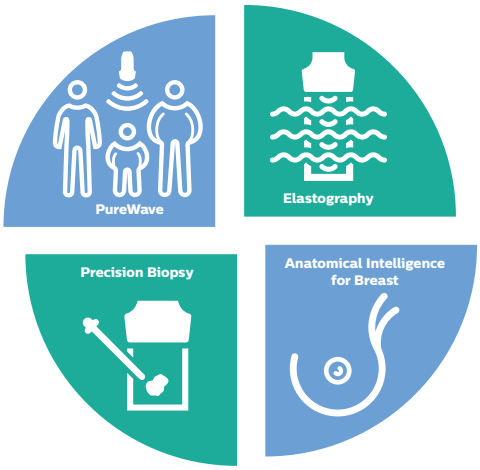
The ultimate ultrasound solution for **breast assessment**

Breast cancer is the second most common cancer in the world and, by far, the most frequent cancer among women.

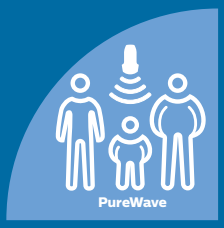
Breast cancer represents about 25% of cancer cases in women.

Many clinicians depend on ultrasound to elevate diagnostic confidence in detecting breast cancers in women. With mammography, dense breast tissue can mask small cancerous lesions and clinicians rely on ultrasound to enhance detection of lesions. The Philips ultimate ultrasound breast solution provides an all-in-one approach to empower clinicians to effectively assess, monitor and treat breast diseases, increasing diagnostic confidence and helping patients get the treatment they need.

Clinicians need better solutions that not only improve detection and diagnosis but also increase throughput and productivity while maintaining the highest levels of confidence. The EPIQ platform brings another ultimate solution to ultrasound, with clinically tailored tools designed to elevate breast assessment to new levels.

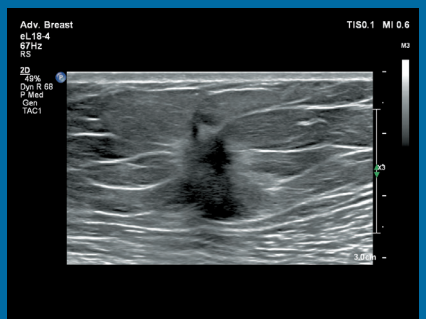


Philips eL18-4 PureWave linear array transducer

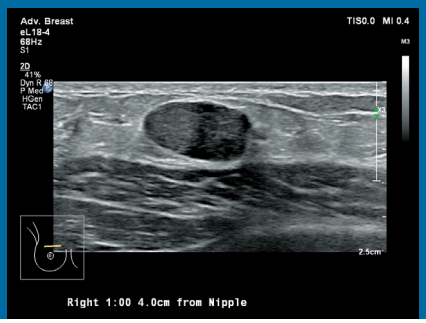


The eL18-4 PureWave linear array transducer is our first high-performance transducer featuring ultra-broadband PureWave crystal technology, incorporating a multi-row array configuration allowing fine elevation focusing capability. Elevation focusing works in conjunction with azimuthal focusing to provide thin slice imaging for exceptional detail resolution and breast tissue uniformity from near to far depth of field. This approach allows for superb breast imaging at any depth.

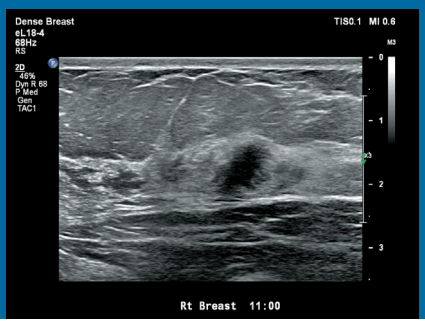
The eL18-4 transducer represents a breakthrough innovation incorporating both our highest frequency and ultra-broadband acoustic specification in a PureWave array design that delivers extraordinary imaging and depth of field performance in breast tissue.



Breast carcinoma

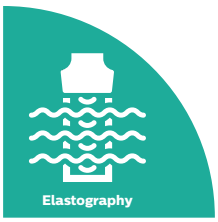


Breast fibroadenoma

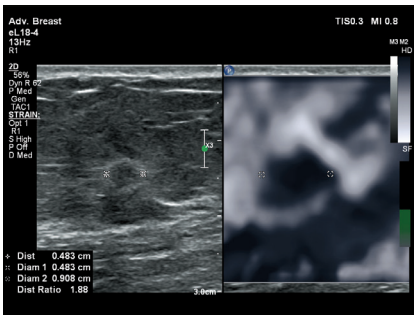


Breast carcinoma with spiculations

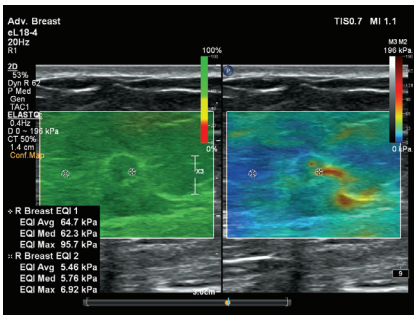
Supports full solution elastography featuring strain and shear wave imaging



The eL18-4 transducer is designed to support a complete elastography solution. Highly sensitive strain imaging can be used to rapidly assess relative breast tissue stiffness, and ElastQ Imaging shear wave elastography utilizes a unique pulsing scheme to generate and detect the propagation speed of shear waves, providing an absolute measure of breast tissue stiffness. The ability to combine both methods of elastography and deliver excellent imaging performance is an extraordinary clinical accomplishment that helps advance clinical practice.

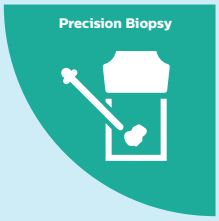


Strain elastography



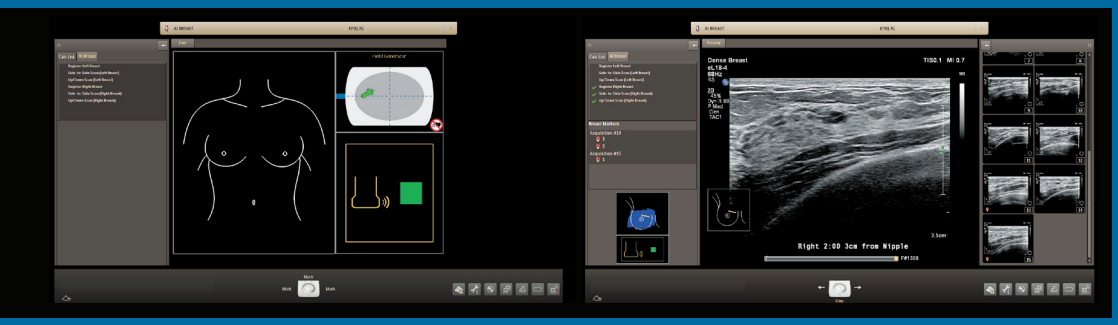
ElastQ Imaging shearwave elastography

New precision biopsy capabilities will reduce needle blind zones



Needle visualization gives the user more confidence by reducing needle blind zones and supports the ability to enhance the display of needle reflections during interventional procedures. The eL18-4 transducer is compatible with the CIVCO Verza Guidance System, providing an advanced biopsy guidance system with virtually no dead zone. Using precision-guided biopsy techniques allows confidence in obtaining breast tissue targets to reduce multiple approaches.

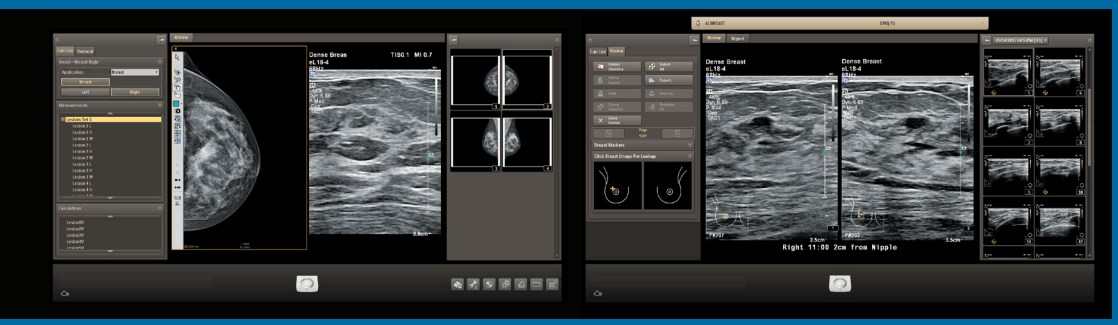
Facilitate whole breast imaging exams while preserving superb image quality for full diagnostic capabilities.



AI Breast registration screen

AI Breast screening with mapping display

Anatomical Intelligence for Breast



Multimodality query retrieve with mammography

AI Breast orthogonal view

Specially designed mattress pad and table top field generator

The Anatomical Intelligence for Breast (AI Breast) feature is a powerful software utilizing the new eL18-4 with integrated electromagnetic tracking coils in conjunction with a specially designed mattress and tabletop field generator to perform breast screening exams. AI Breast allows visual mapping of screened anatomy, assuring full coverage of the breast during the acquisition phase. Images are stored while performing sweeps to allow for later review.

During acquisition, key images can be bookmarked for quick review. Images can be auto-annotated and quick orthogonal views of anatomy can be retrieved easily for enhanced workflow and documentation. The AI Breast Review Suite will be supported as an off-line workstation for reviewing and reporting.

Sources

Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. GLOBOCAN 2012 v1.1, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2014. Available from: http://globocan.iarc.fr, accessed on 01/16/2015.

Ho JM, et al. Dense breasts: a review of reporting legislation and available supplemental screening options. American Journal of Roentgenology. 2014;203:449.

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