

Healthcare Sector

Erlangen, July 15, 2009

Factsheet “Ultrasound for Breast Care”

- During an ultrasound examination, a probe (transducer) is used to send high-frequency sound waves, i.e. ultrasound waves, into the breast.
- The reflected echos which are captured by the transducer are converted into electronic signals that are displayed on a monitor for the sonographer or physician to analyze.
- The procedure is usually painless and does not use radiation.
- According to the *New England Journal of Medicine*, dense breast tissue increases a woman's risk of breast cancer up to five-fold¹. While mammography remains the method of choice for breast cancer screening, a study published in 2008 found that if a screening ultrasound was added to a routine mammogram, 28 percent more cancers were revealed than with mammography alone.²

The ACUSON S2000™ Automated Breast Volume Scanner (ABVS) – The world's first multi-use breast ultrasound system

- Allows for automated and fast full-field ultrasound image acquisition of the breast
- Provides 3D volume information for comprehensive review and diagnosis, in particular the coronal plane (from nipple to chest wall), which provides a more intuitive representation of the breast and helps in surgical planning
- Features a scan pod that is placed on the breast and then automatically scans the breast acquiring the data to create a 3D volume

¹ N Engl J Med 356;3. Boyd N.F. et Al., Mammographic Density and the Risk and Detection of Breast Cancer

²JAMA, May 14, 2008; 299: 2151-2163.

- Scans both breasts in less than 15 minutes, whereas 30-45 minutes are needed for a hand held ultrasound examination
- Minimal compression is needed, which means less discomfort than with mammography
- Delivers operator-independent, reproducible results

- Additionally supports advanced hand held ultrasound capabilities for biopsy guidance and color Doppler imaging

Innovations

The ACUSON S2000 ABVS also features advanced breast applications

- **eSie Touch™ elasticity imaging**
 - Calculates and displays relative stiffness of tissue. eSie Touch elasticity imaging is a promising new method that has the potential to reduce the number of unnecessary biopsies.
- **Fatty tissue imaging**
 - A speed-of-sound adaptation that optimizes the image in real-time to enhance B-mode image quality for excellent ultrasound imaging of the fatty breast
- **Advanced SieClear™ spatial compounding and Dynamic TCE™ tissue contrast enhancement technology**
 - Real-time compounding technique which provides dramatic improvements in contrast resolution and border detection and may be combined with Dynamic TCE technology to further improve contrast resolution through speckle reduction.