Medical Systems

In the medical systems field, Toshiba aims to establish human-friendly and patientcentered medical care in order to realize healthier lives for everyone. We provide medical solutions that offer patients peace of mind, such as the latest-type of diagnostic imaging system by promoting the development of the most advanced medical equipment and clinical applications.

Aplio[™] XG Diagnostic Ultrasound System

Toshiba Medical Systems Corporation has developed a high-end diagnostic ultrasound system the Aplio[™] XG, which is an advanced version of Aplio[™], by incorporating new technologies such as



Aplio[™]XG overview

4D imaging^(*) and further improving the basic system capabilities such as examination workflow.

Aplio[™] XG has the following features:

- An advanced 19-inch LCD monitor with multi-joint arm allows flexible positioning of the monitor, permitting the user to perform examinations in a more comfortable position.
- The latest in human engineering is applied to the user interface of Aplio[™] XG. It ensures intuitive and comfortable operation, which has been very well received on the market.
- Aplio[™] XG provides the excellent image quality that it shares with Aplio[™]. It clearly demonstrates the clinical value of wide-band technology "D-THI" (Differential Tissue Harmonic Imaging), multi compounding technology "ApliPure[™] plus" and other advanced technologies. Sensitivity has been further improved to detect blood flow in deeper regions.
- The system platform supports 4D imaging, making possible advanced 4D strategies, and also provides new applications of particular value to researchers, such as applications employing newly developed 4D contrast enhanced imaging.



(*) 4D imaging: An electronic-scanning transducer is swept mechanically to display real-time 3D images.

image of a kidney transplant Courtesy of Thomas Fischer,

4D contrast enhanced

MD (Charite Univ. Hospital)



ApliPure[™] plus image providing wide field of view

EXCELART VantageTM **1.5-T MRI System Powered by Atlas**



EXCELART Vantage[™] 1.5-T MRI system powered by Atlas



Atlas SPEEDER[™] coils

Toshiba Medical Systems Corporation has developed a new top-end model in its 1.5-T MRI (Magnetic Resonance Imaging) system EXCELART Vantage[™] series.

This model provides both wide-area scan and highdefinition local imaging using new RF (Radio Frequency) coil and reception system technology (Atlas SPEEDER[™] technology).

The main features of the system are as follows:

- The three new array coils (Atlas SPEEDER[™] coils) for head and neck, spine, and abdomen can obtain both whole-body images and high-definition local images without coil changes, which would require patient movement. In addition, the more closely spaced coil elements support increased speed in parallel imaging.
- The system can receive signals from a maximum of 128 independent RF coil elements, select the optimum

signals from among signals received, and combine selected signals to achieve a 16-channel PAC (Phased Array Coil) reception system. The system also has the capability to support a higher number of PAC channels in the future.

• RF coil connector ports provided on the patient couchtop and maximum couch travel of 2700 mm enable whole-body scanning.



Whole-body MRA(MR Angiography) and T2-weighted images