

The development of diagnostic imaging equipment, ranging from X-ray equipment to X-ray computed tomography (CT), magnetic resonance imaging (MRI), nuclear medicine and ultrasound, makes possible early diagnosis and treatment, as well as less invasive treatment procedures. Toshiba continues to apply the most advanced technologies from throughout the company to meet demand in all fields of medicine.

CAS-8000V Angiography System



CAS-8000V angiography system

The clinical applications of angiography span a broad spectrum from diagnosis to treatment of various blood vessel conditions. Responding to this



Rotational DSA of cerebral angiography

diverse array of needs, Toshiba has developed the CAS-8000V Carm support for X-ray tubes and Image Intensifier (I.I.).

The unit is supported from the ceiling, and can be rotated on three axes: at the ceiling support column, and by sliding and rotating the C-arm. This allows the patient to be approached from almost any direction. In addition, longitudinal and lateral travel at the unit's ceiling fixture allows scanning from head to toe and in emergency situations.

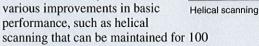
The X-ray tube and I.I. are integrated into the C-arm—a feature known as off-set-less C-arm—making the arm less bulky and improving access to the patient. Speed of operation is also enhanced by the lightweight aluminum construction of the Carm, which offers a high-speed rotational digital subtraction angiography (DSA) feature. With this feature, images from the rotating C-arm can be compiled to give a three-dimensional image of the blood vessels.

Xpress/GX Compact X-Ray CT Scanner



a continuous rotating Xray computed tomography (CT) scanner that Toshiba has developed as the top of its XvisionTM line. Its high image quality and excellent low-contrast resolution are obtained by incorporating a solid-state detector with a dose absorption efficiency of more than 99 percent. As a routine helical scanner, the new system features

scanning that can be maintained for 100 seconds with a reconstruction cycle of 5 seconds.



A newly developed real-time helical scan allows the system to reconstruct and display images at a frame rate of 6 images per second during scanning. This reduces the length of both the examination and the patient's exposure to X-rays. Moreover, the Sure Start timing function performs scanning at the optimal moment of contrast enhancement, and is able to start the scan automatically by monitoring the target organs or lesions in real time. This improves the accuracy of CT examinations.

Anticipated clinical applications for Xpress/GX include use as an Interventional Radiology CT (IVR-CT) or as a compact CT for radiotherapy systems using continuous imaging technology.



detector

Xpress/GX compact X-ray CT scanner and solid-state

Helical scanning image