

Advancements in CT technology invariably lead to new clinical applications. Helical scanning opened up anatomy outside of the brain. Multislice technology allowed fast volumetric scanning. Sixteen slice introduced vascular applications. Sixty-four slice scanners made cardiac scanning a matter of routine practice. In recent years, each of the evolutionary steps in CT technology has sought to improve the way helical scanning is accomplished.

Toshiba Medical Systems has developed a Beta version of a 256 slice CT system to cover nearly 13 cm of anatomy in a single rotation with 0.5 mm slices to allow the complete organ coverage in a single rotation. This system can acquire images of an entire volume at a single, instantaneous time point which significantly reduces motion artifact and eliminates contrast phase differences within the volume. Since this system does not require helical acquisition for volumetric imaging, it will deliver significantly less dose for CT coronary angiography exams as well as reduced dose in most other applications.

With its wide volume coverage, the 256 slice system promises to revolutionize the way we approach acute stroke patients, the way we look at myocardial perfusion imaging, and the way we image other moving body parts such as the lung during respiration and peripheral joint motion.