

AbstractID: 2802 Title: Recent Advances in CT: MSCT and Highspeed Scanning
Recent Advances in CT Technology: Multislice CT - Lee W. Goldman, M.S.

This lecture begins the CT refresher course series by reviewing fundamental concepts associated with CT image quality in axial and helical scanning, then focuses on principles of multislice CT. Some concepts associated with single-slice helical scanning are briefly reviewed as an introduction to MSCT helical scanning concepts. The attendee will be familiarized with:

- 1) properties of the CT scan process affecting image quality, including sampling and scatter
- 2) traditional and new methods to improve sampling
- 2) principles of multislice CT scanning
- 3) MSCT detectors systems
- 4) reasons for potentially increased radiation doses in MSCT
- 5) Concepts associated with helical scanning and pitch in MSCT
- 6) Benefits of MSCT.
- 7) Current generations of MSCT systems
- 8) Improvements in gantry rotational speed and associated x-ray tube design