Spiral and Multislice Computed Tomography of the Body

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Description

Whole body computed tomography has developed at a rapid pace in the past decade, spurred on by the introduction of spiral and multislice scanning. These new technologies have not only improved diagnostic accuracy, but also made new applications possible that were previously accessible only through more complex or invasive techniques.

This new book expertly fills a gap in the literature by combining the practically relevant technical background with the clinical information required for correctly performing and interpreting CT examinations. The book presents the state-of-the-art capabilities and requirements of CT as a key diagnostic and interventional tool, with special emphasis on the role of spiral and multi-slice CT.

You will find a thorough introduction to CT technology from scanner design to 3D image reconstruction, useful practical hints on how to optimize your examination protocols and how to keep the radiation exposure of your patients to a minimum, as well as an extensive clinical section in which symptoms, pathology and CT morphology are integrated to provide you with the basis for subtle interpretation of CT findings using the most modern CT techniques.

Highlights include:

- Full coverage of single-slice, 4-slice and 16-slice scanning techniques
- Introduction to extended CT applications including cardiac CT, CT fluoroscopy, and 3D image processing
- Organ-specific protocols for scanning and contrast administration
- Practical guidelines for maximizing image quality and minimizing radiation exposure
- Useful suggestions for image interpretation and for avoiding pitfalls and errors
- Convenient format by organ system and disease entity
- Full discussion of organ-specific pathology and CT morphology
CT indications integrated with other imaging modalities

At a time when CT examinations are becoming more technically demanding and complex, with an increasing number of scan parameters and advances in 3D reconstructions, this book is an essential professional tool. Experienced practitioners will find their diagnostic and technical skills improved by reading the book, and beginners will enjoy the clear, systematic approach that will help them use the technique with confidence.