1. Record Nr. UNINA9910254550803321 Multidetector-Row CT of the Thorax [[electronic resource] /] / edited by Titolo U. Joseph Schoepf, Felix G. Meinel Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-30355-4 Edizione [2nd ed. 2016.] Descrizione fisica 1 online resource (XVIII, 597 p. 420 illus., 160 illus. in color.) Collana Diagnostic Imaging Disciplina 617.540757 Soggetti Radiology Respiratory organs—Diseases Cardiology Diagnostic Radiology Pneumology/Respiratory System Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Part I: MDCT – Technical Background, Radiation Protection: Technical Nota di contenuto Bases of MDCT -- Radiation Exposure in Thoracic CT -- Strategies for Dose Reduction and Improvement of Image Quality in Chest CT --Contrast Medium Injection Techniques -- Acquisition Protocols for Thoracic CT -- Part II: Airways / Diffuse Lung Disease: CT of the Airways -- CT in COPD / Pulmonary Emphysema -- CT Imaging of Interstitial Lung Diseases -- Pulmonary infections: Imaging with CT --CT Evaluation of ARDS -- Part III: Lung Nodules / Lung Cancer: CT Screening for Lung Cancer: Evidence and Recommendations -- CT Screening for Lung Cancer: Current Controversies -- CT Characterization of Lung Nodules -- Management of lung nodules detected incidentally and at screening -- Staging of Lung Cancer with CT -- CT Imaging of the Mediastinum -- PET CT of the Thorax -- Part IV: Cardiovascular Applications: CT of Pulmonary Thromboembolic Disease -- Dual-energy CT of the Thorax -- MDCT of the Thoracic Aorta -- CT Imaging of Ischemic Heart Disease -- Comprehensive CT Imaging in acute chest pain -- CT Imaging of the Heart-Lung axis --

Anomalies and malformations of the pulmonary circulation: Evaluation

Sommario/riassunto

with CT -- Part V: Data Management: Workflow Design for CT of the Thorax -- 2D and 3D Visualization of Thoracic MDCT Data -- Computer-Aided Diagnosis in Chest CT -- Part VI: Miscellaneous: Pediatric CT of the Chest -- CT of the Chest Wall -- CT in Chest Trauma -- CT Guided Interventions in the Thorax -- Thoracic CT: Medicolegal Aspects -- Future Developments in Chest CT.

Since the first edition of this book was published in 2004, computed tomography has seen groundbreaking technical innovations that have transformed the field of thoracic imaging and opened novel possibilities for the detection of thoracic pathologies. This book highlights cutting-edge thoracic applications of CT imaging in the context of these technical innovations and discusses the latest opportunities, with critical appraisal of challenges and controversies. All topics are covered by renowned international experts. Chapters from the original edition have been thoroughly updated to reflect the state of the art in technology and scientific evidence, and new contributions included on recent developments such as dual-energy CT and CT imaging in patients with acute chest pain. The book is abundantly illustrated with high-quality images and illustrations.