Almost a decade has passed since the publication of the second edition of *Radiology of Chest Diseases* in 1997. This period has seen tremendous advances in imaging technology.

Single-slice helical CT has given way to multi-detector row CT (MDCT), and with increasing numbers of detectors we move toward the concept of “isotropic” spatial resolution. This has been combined with decreased scan times and improved temporal resolution. The rapid evolution of CT technology has led to marked improvements in the quality of thoracic CT studies and has allowed us to contemplate and perform with some success cardiac evaluation and CT coronary angiography.

Positron emission tomography (PET)/PET-CT has been incorporated into everyday clinical practice in the past decade and today plays a significant role in imaging evaluation of thoracic disease, particularly in oncologic staging and assessment.

Advances in magnetic resonance imaging (MRI) today allow improved cardiac evaluation and particularly myocardial first-pass perfusion and viability assessment.

In this text, we have tried to convey how these exciting advances in technology fit into the clinical setting of cardiothoracic imaging evaluation.

We also recognize the ever-increasing availability and use of CT as an “early” second-line imaging tool in assessment of the patient with suspected pulmonary disease and have placed a greater emphasis on the role of high-resolution/thin-section CT in evaluation of parenchymal lung disease.

A new chapter on interventional procedures in the thorax describes a spectrum of procedures from the standard image-guided biopsy and drainage through to the more specialized interventions of pulmonary AVM and pulmonary false aneurysm embolization.

Once again, we hope that this text conveys the fascinating diversity of cardiothoracic radiology and that it will prove a useful guide to the practitioner in the everyday clinical setting.

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