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## Cardiac CT

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Marc Dewey

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 Springer

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# Foreword

Computed tomography has been going through a dramatic evolution of technology in the past years. The increased spatial and temporal resolution directly translate into improved image quality and more versatile applications. Indeed, entirely new areas of clinical application have emerged, one of the most prominent being the recent advent of cardiac computed tomography. Especially CT angiography of the coronary arteries – often referred to as coronary CT angiography – has received tremendous interest and is currently entering the clinical arena. In fact, it has the potential to greatly alter the way in which many patients with suspected coronary artery disease will be worked up. However, the technique is still relatively new to the medical community. Furthermore, in the recent past several developments – such as substantial further improvement of scanner technology and the extensive use of low-dose acquisition protocols – have been introduced and will influence the utilization of cardiac CT. At this stage, it is crucial that all those potentially

involved in the new imaging technology – those who perform and interpret the scan and also those who order a cardiac CT and advise their patients as to whether a CT examination might be the right test for them – are well informed about the technology and answers it can provide, about its limitations and problems, and about how to best apply it in a given clinical situation.

This is why the textbook edited by Dr. Dewey is most welcome. With ample illustrations, it provides the technological background and principles of scan acquisition and interpretation as well as outlines the range of clinical applications of cardiac CT. May it be a useful resource to its readers and may it contribute towards the further development of this exciting field.

Erlangen, Germany  
Baltimore MD, USA  
April 2010

Stephan Achenbach  
Elliot K Fishman



# Acknowledgments

We thank our patients, without whom we would not be able to conduct our clinical work and studies to continuously increase our understanding of the clinical utility of cardiac CT.

We are indebted to our technicians, assistants, and nurses at the Department of Radiology of the Charité – Universitätsmedizin Berlin for their contributions to the success of our clinical cardiovascular imaging program. Without their support, this book would not have been possible. The editorial assistance of Bettina Herwig and Deborah McClellan has been instrumental in writing this book. Stephanie Kreutzer has created beautiful artwork to illustrate essential concepts and approaches.

The excellent collaboration with the Department of Cardiology and Angiology at the Charité (Chairman:

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I wholeheartedly thank Drs. Martina and Charles Dewey.

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June 2010

Marc Dewey



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