
PREFACE

In 2006, echocardiography remains the most commonly used cardiac imaging technique. Despite the existence of other methods to image the heart, such as nuclear imaging, angiography, cardiac magnetic resonance, and cardiac computed tomography, echocardiography continues to be the “bread and butter” imaging modality of cardiologists worldwide. Echocardiography has become so central to our care of patients precisely because it is almost universally available, can be performed in the outpatient setting or the intensive care unit, provides usable clinical information on the vast majority of patients, is relatively inexpensive, and has significant clinical and prognostic value.

The goal of *Essential Echocardiography: A Practical Handbook With DVD* is to teach echocardiography to anyone learning the discipline. Although most previous echocardiography books have been designed either for physicians—generally cardiologists—or cardiac sonographers, the basic principles of echocardiography are the same regardless of the learner. In the general practice of echocardiography, these distinctions blur. Indeed, sonographers are often the first to make an important diagnosis; conversely, in many institutions, physicians, not sonographers, perform echocardiographic scans. Written by a variety of experts with a commitment to the education and training of sonographers, students, and cardiology fellows, all the chapters in *Essential Echocardiography: A Practical Handbook With DVD* are designed to be basic enough for the introductory student, but offer enough substance to serve as a reference for the more advanced practitioner.

Echocardiography is the perfect marriage between anatomy and physiology, and an essential understanding of

both is required of the echocardiographer. A substantial amount of this text is dedicated to the underlying physical and physiological principles. Yet echocardiography is primarily a visual discipline. The principles discussed in the text will be reinforced by the abundant echocardiographic images and dedicated illustrations demonstrating relevant cardiac anatomy and physiology. Our experience teaching echocardiography to fellows suggests that it can be difficult to learn a dynamic imaging modality such as echocardiography from static images. Thus, in addition to the large number of embedded images in the text, this book is uniquely accompanied by a DVD containing moving images illustrating virtually all of the major points in the chapters. The DVD will provide a unique learning tool for the introductory student, who is encouraged to view the DVD while reading the text, and a comprehensive visual encyclopedia for the more experienced learner.

Even as we embrace other emerging cardiac imaging technologies, advances in ultrasound technology in general and cardiac ultrasound in particular are leading to continued improvements in image quality and new techniques and applications of cardiac ultrasound. These advances will ensure that echocardiography will continue to remain the leading cardiac imaging modality for some time to come. *Essential Echocardiography: A Practical Handbook With DVD* will provide the physiological, anatomical, and diagnostic grounding all students of cardiac ultrasound need and provide a sound basis for a more general understanding of cardiac imaging.

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