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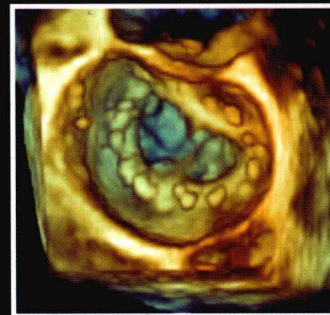
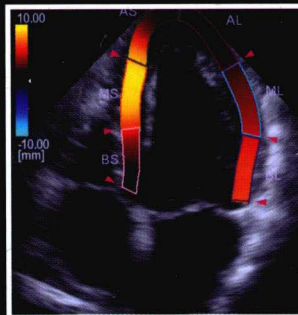
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ASE's Comprehensive Echocardiography

SECOND EDITION

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American Society of
Echocardiography

ASE's Comprehensive Echocardiography

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Foreword

It gives me great pleasure, as the president of the American Society of Echocardiography (ASE), to introduce you to *ASE's Comprehensive Echocardiography*. Conceived and executed by editor-in-chief Roberto Lang, 2009/2010 president of the ASE, and senior editors Steven Goldstein, Itzhak Kronzon, Bijoy Khandheria, and Victor Mor-Avi, this book provides a comprehensive and practical approach to the basic principles and clinical applications of echocardiography. It is a textbook and dynamic digital library for our entire community. With 200 chapters and 150 authors from across the breadth of ASE expertise, there is something for everyone. I am confident this book will serve as a valuable resource for students, early career clinicians, and advanced practitioners alike. As cardiovascular ultrasound is used by more caregivers in more clinical settings to answer more clinical questions, this textbook will become more valuable. The nicely illustrated print examples and easy-to-use digital library with dynamic imaging videos will appeal to those who both want to pull a book off the shelf and access information

on-the-go. Given the expertise that went into this book and the ease of use, I predict this will become the go-to textbook for our entire cardiovascular ultrasound community.

I am also very proud that this textbook illustrates what is great about the ASE. We are a society with more than 16,000 members worldwide, dedicated to quality in cardiovascular ultrasound and education, both of which are prominently demonstrated throughout this textbook. ASE is also a village made up of many different people from many different backgrounds, all united and energized about the value of cardiovascular ultrasound in caring for people worldwide. Sharing knowledge, through this textbook, is one way we come together as a community to further advance patient care.

Enjoy the textbook, use it often and let it be just one of multiple links between you and the American Society of Echocardiography!

Neil J. Weissman, MD, FASE, FACC

President, American Society of Echocardiography, 2014-2015

Preface

For more than a quarter of a century, echocardiography has made unparalleled contributions to clinical cardiology as a major tool for real-time imaging of cardiac anatomy and physiology. Echocardiography is widely used every day in hospitals and clinics around the world to assess cardiac function, and it provides invaluable, noninvasive information for the diagnosis of multiple disease states. The American Society of Echocardiography (ASE) is an organization of professionals committed to excellence in cardiovascular ultrasound and its application to patient care through education, advocacy, research, innovation, and service to our members and public. ASE's goal is to be its members' primary resource for education, knowledge exchange, and professional development. The new ASE's *Comprehensive Echocardiography* is a major step toward the achievement of this goal.

This book is a result of a large-scale collaborative effort of multiple ASE members who have contributed chapters on the topics of their respective expertise. Unlike other existing echocardiography textbooks, including the predecessor of this volume, *Dynamic Echocardiography*, published in 2011, this second edition—with its new title—covers a full range of topics, as reflected by its staggering 200 chapters. Our aim was to provide the essential material for each topic in a succinct format, well-illustrated by multiple figures, tables, and an extensive collection of online videos. The ASE would like for this comprehensive new textbook to replace the previously published text *Dynamic Echocardiography*, which was widely successful among our readers. Although some of the topics remain the same, understandably, the material, including text, figures, and references, was almost entirely rewritten to provide up-to-date information that takes into account the clinical and technological advancements that took place since the previous publication.

Once readers have reviewed the written chapters, we encourage them to review the accompanying online videos of corresponding

cardiac pathologies. We believe that this combined approach is the most effective way of learning clinical echocardiography. Our hope is that physicians and cardiac sonographers will use this text and its companion material as a reference and educational aide in echocardiography laboratories around the world.

The ASE and the editors thank the authors for selflessly contributing their time, effort, and expertise for the completion and success of this project. We also wish to thank the sonographers, who with their expert hands have generated and provided the spectacular images that illustrate this text, without which this educational endeavor would not have been possible.

The editors also want to thank our ASE colleagues, who have tirelessly worked with us on this project from conception to fruition, including Hilary Lamb and Robin Wiegink, as well as the expert help of the Elsevier staff. We also thank the ASE board of directors and the executive committee for their support, encouragement, and valuable comments and suggestions.

We also wish to thank our families for their continuous support while we worked on this project: our spouses, Lili, Simoy, Ziva, Andy, and Priti; our children, Daniella, Gabriel, Lindsey, Lauren, Derek, Iris, Rafi, Shira, Eden, Yarden, Vishal, and Trishala; and our grandchildren, Ella, Adam, Lucy, Eli, and Jacob.

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