

Contemporary Cardiology

Series Editor: Peter P. Toth

Arman T. Askari

Adrian W. Messerli

Editors

Cardiovascular Hemodynamics

An Introductory Guide

Second Edition

 Humana Press

Contemporary Cardiology

Series Editor:

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To our families for their unwavering support.

Preface to the Second Edition

For any cardiovascular care provider, an understanding of physiology is absolutely essential for delivering patient care. Whether sitting in the echocardiography reading room, performing procedures in the catheterization laboratory, or rounding in the coronary care unit, such an understanding is equally vital. While the underpinnings of cardiovascular physiology from a systems perspective have changed little in recent time, there have been substantial advances in the ability to apply these concepts to newer technologies.

Our primary goal for this second edition of *Cardiovascular Hemodynamics: An Introductory Guide* is not only to expound on the fundamental education of cardiovascular physiology but also to focus additionally on the clinical application of these hemodynamic principles. In order to achieve this, we have updated all of the first edition chapters and have added a new section, “Effects of Selected Interventions on Cardiovascular Hemodynamics.”

Born out of the huge economic burden of heart failure is an increased pressure on the healthcare system to decrease the often-avoidable readmissions for those patients with heart failure. We believe that a solid knowledge of heart failure physiology will arm those charged with the care of these patients with the tools necessary to decrease these costly readmissions. In addition, we have added another chapter, “Objective Evaluation of Hemodynamics in the Outpatient,” that aims to familiarize the reader with the recent advancements (medical and technological) that have proven helpful with regard to optimizing patient care.

Of course, an emphasis on the basic tenets of cardiovascular physiology remains our central focus, and we use numerous figures, hemodynamic tracings, tables, board style review questions, and hemodynamic “pearls” in order guide our readers. We believe this manual will be of immense value and interest to every student and practitioner of cardiovascular medicine who wishes to fully learn the hemodynamic foundation of cardiovascular medicine.

Beachwood, OH, USA
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We would like to acknowledge the authors, who, in many cases, were also mentors.

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