



8th edition

Cardiovascular Physiology

David E. Mohrman
Lois Jane Heller

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Cardiovascular Physiology

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Contents

Preface	ix
Chapter 1 Overview of the Cardiovascular System	1
Objectives / 1	
Homeostatic Role of the Cardiovascular System / 2	
The Basic Physics of Blood Flow / 6	
Material Transport by Blood Flow / 8	
The Heart / 9	
The Vasculature / 15	
Blood / 17	
Perspectives / 19	
Key Concepts / 19	
Study Questions / 20	
Chapter 2 Characteristics of Cardiac Muscle Cells	22
Objectives / 22	
Electrical Activity of Cardiac Muscle Cells / 23	
Mechanical Activity of the Heart / 38	
Relating Cardiac Muscle Cell Mechanics to Ventricular Function / 48	
Perspectives / 49	
Key Concepts / 49	
Study Questions / 50	
Chapter 3 The Heart Pump	52
Objectives / 52	
Cardiac Cycle / 53	
Determinants of Cardiac Output / 60	
Influences on Stroke Volume / 60	
Summary of Determinants of Cardiac Output / 64	
Cardiac Energetics / 68	
Perspectives / 70	
Key Concepts / 70	
Study Questions / 71	
Chapter 4 Measurements of Cardiac Function	73
Objectives / 73	
Measurement of Mechanical Function / 73	
Measurement of Cardiac Excitation—The Electrocardiogram / 77	

Perspectives / 87
Key Concepts / 87
Study Questions / 88

Chapter 5 Cardiac Abnormalities **90**

Objectives / 90
Electrical Abnormalities and Arrhythmias / 90
Cardiac Valve Abnormalities / 95
Perspectives / 98
Key Concepts / 99
Study Questions / 100

Chapter 6 The Peripheral Vascular System **102**

Objectives / 102
Transcapillary Transport / 104
Resistance and Flow in Networks of Vessels / 109
Normal Conditions in the Peripheral Vasculature / 112
Measurement of Arterial Pressure / 118
Determinants of Arterial Pressure / 119
Perspectives / 122
Key Concepts / 122
Study Questions / 124

Chapter 7 Vascular Control **126**

Objectives / 126
Vascular Smooth Muscle / 127
Control of Arteriolar Tone / 132
Control of Venous Tone / 141
Summary of Primary Vascular Control Mechanisms / 142
Vascular Control in Specific Organs / 143
Perspectives / 154
Key Concepts / 154
Study Questions / 155

Chapter 8 Hemodynamic Interactions **157**

Objectives / 157
Key System Components / 158
Central Venous Pressure: An Indicator of Circulatory Status / 160
Perspectives / 170
Key Concepts / 170
Study Questions / 171

Chapter 9 Regulation of Arterial Pressure **172**

Objectives / 172
Short-Term Regulation of Arterial Pressure / 173

Long-Term Regulation of Arterial Pressure / 183	
Perspectives / 189	
Key Concepts / 190	
Study Questions / 191	
Chapter 10 Cardiovascular Responses to Physiological Stresses	193
Objectives / 193	
Primary Disturbances and Compensatory Responses / 195	
Effect of Respiratory Activity / 195	
Effect of Gravity / 198	
Effect of Exercise / 203	
Normal Cardiovascular Adaptations / 208	
Perspectives / 212	
Key Concepts / 213	
Study Questions / 214	
Chapter 11 Cardiovascular Function in Pathological Situations	216
Objectives / 216	
Circulatory Shock / 217	
Cardiac Disturbances / 222	
Hypertension / 231	
Perspectives / 235	
Key Concepts / 235	
Study Questions / 236	
Answers to Study Questions	238
Appendix A	256
Appendix B	257
Appendix C	258
Appendix D	259
Appendix E	262
Index	267

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Preface

This text is intended to give beginning medical and serious physiology students a strong understanding of the basic operating principles of the intact cardiovascular system. In the course of their careers, these students will undoubtedly encounter a blizzard of new research findings, drug company claims, etc. Our basic rationale is that to be able to evaluate such new information, one must understand where it fits in the overall picture.

In many curricula, the study of cardiovascular physiology is a student's first exposure to a complete organ system. Many students who have become masters at memorizing isolated facts understandably have some difficulty in adjusting their mindset to think and reason about a system as a whole. We have attempted to foster this transition with our text and challenging study questions. In short, our goal is to have students "understand" rather than "know" cardiovascular physiology.

We strongly believe that in order to evaluate the clinical significance of any new research finding, one must understand precisely where it fits in the basic interactive framework of cardiovascular operation. Only then can one appreciate all the consequences implied. With the current explosion in reported new findings, the need for a solid foundation is more important than ever.

We are also conscious of the fact that cardiovascular physiology is allotted less and less time in most curricula. We have attempted to keep our monograph as short and succinct as possible. Our goal from the first edition in 1981 onward has been to help students understand how the "bottom-line" principles of cardiovascular operations apply to the various physiological and pathological challenges that occur in everyday life. Thus, our monograph is presented throughout with its last two chapters in mind. These chapters bring together the individual components to show how the overall system operates under normal and abnormal situations. We judged what facts to include in the beginning chapters on the basis of whether they needed to be referred to in these last two chapters.

In this eighth edition, we have attempted to improve conveying our overall message through more precise language, more logical organization of some of the material, smoother and more leading transitions between topics, incorporation of new facts that help clarify our understanding of basic concepts, addition of "Perspectives" section in each chapter that identifies important issues that are currently unresolved, and inclusion of additional thought-provoking study questions and answers.

As always, we express sincere thanks to our mentors, colleagues, and students for all the things they have taught us over the years. This may be our last edition, so, in closing, the authors would like to thank each other for the uncountable hours we have spent in discussion (and argument) in what has been a long, mutually beneficial, and enjoyable collaboration.

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