## Table of Contents

**Preface**

**Chapter 1** Structure and Function—*How the Architecture of the Lung Subserves Its Function*

**Chapter 2** Ventilation—*How Gas Gets to the Alveoli*

**Chapter 3** Diffusion—*How Gas Gets Across the Blood-Gas Barrier*

**Chapter 4** Blood Flow and Metabolism—*How the Pulmonary Circulation Removes Gas from the Lung and Alters Some Metabolites*

**Chapter 5** Ventilation-Perfusion Relationships—*How Matching of Gas and Blood Determines Gas Exchange*

**Chapter 6** Gas Transport by the Blood—*How Gases are Moved to the Peripheral Tissues*

**Chapter 7** Mechanics of Breathing—*How the Lung Is Supported and Moved*

**Chapter 8** Control of Ventilation—*How Gas Exchange Is Regulated*

**Chapter 9** Respiratory System Under Stress—*How Gas Exchange Is Accomplished During Exercise, at Low and High Pressures, and at Birth*

**Chapter 10** Tests of Pulmonary Function—*How Respiratory Physiology is Applied to Measure Lung Function*

**Appendix A** Symbols, Units, and Equations

**Appendix B** Answers

**Figure Credits**

**Index**