

Contents

Contributors v
Foreword ix
Preface xi
Acknowledgments xiii

PART I

INTRODUCTION 1

- 1. History of Cardiopulmonary Rehabilitation 1**
Catherine M. Certo, William E. DeTurk, & Lawrence P. Cahalin
- 2. History and Use of the Guide With Attention to the International Classification of Functioning, Disability, and Health (ICF) 15**
Gary Brooks & Lawrence P. Cahalin

PART II

BASIC MEDICAL SCIENCE 35

- 3. Essentials of Exercise Physiology 35**
William E. DeTurk & Lisa Johnson
- 4. Anatomy of the Cardiopulmonary System 85**
Sean M. Collins, David A. Morton, & Barbara Cocanour
- 5. Physiology of the Cardiovascular and Pulmonary Systems 105**
Barbara J. Morgan & Jerome A. Dempsey
- 6. Cardiovascular Pathophysiology 135**
Sandra L. Cassady & Lawrence P. Cahalin
- 7. Pulmonary Pathology 163**
Chris L. Wells
- 8. Medications 211**
Charles D. Ciccone

PART III

CARDIOVASCULAR AND PULMONARY ASSESSMENT 249

- 9. Pulmonary Evaluation 249**
Lawrence P. Cahalin
- 10. Cardiovascular Evaluation 299**
Lawrence P. Cahalin & William E. DeTurk

- 11. Electrocardiography 349**
William E. DeTurk & Lawrence P. Cahalin

- 12. Evaluation of Patient Intolerance to Exercise 393**
William E. DeTurk & Lawrence P. Cahalin

P A R T **IV**

CARDIOVASCULAR AND PULMONARY DISEASE AS COMORBIDITY 411

- 13. Cardiopulmonary Concerns in the Patient With Musculoskeletal and Integumentary Deficits: An Evidence-Based Approach 411**
John S. Leard, Chris L. Wells, & Marlon L. Wong
- 14. Cardiopulmonary Concerns in the Patient With Neurological Deficits: An Evidence-Based Approach 433**
Sue Ann Sisto

P A R T **V**

CARDIOVASCULAR AND PULMONARY INTERVENTIONS 463

- 15. Physical Therapy Associated With Primary Prevention, Risk Reduction, and Deconditioning 463**
Gary Brooks & Lawrence P. Cahalin
- 16. Physical Therapy in the Assessment and Treatment of Patients Who are Obese 501**
Cheri L. Gostic, Dawn Blatt
- 17. Physical Therapy Associated With Airway Clearance Dysfunction 523**
Anne Mejia-Downs & Kathy Lee Bishop
- 18. Physical Therapy Associated With Cardiovascular Pump Dysfunction and Failure 553**
Lawrence P. Cahalin & Lori A. Buck
- 19. Physical Therapy Associated With Respiratory Failure 611**
Nancy D. Ciesla & Jill D. Kuramoto
- 20. Physical Therapy Associated With Ventilatory Pump Dysfunction and Failure 671**
Mary Massery & Lawrence P. Cahalin
- 21. Physical Therapy Associated With Respiratory Failure in the Neonate 725**
Robin J. Winn
- 22. Physical Therapy Associated With Lymphatic System Disorders 747**
Joanne Cesiro

P A R T **VI**

CONCLUSION 771

- 23. The Future of Cardiopulmonary Rehabilitation 771**
Barbara W. DeTurk