

Contents

Part I Cardiovascular Physiology.....	1
Introduction: Cardiovascular Physiology.....	1
1 Ins and Outs of the Cardiac Chambers	3
2 Cardiac Cycle	13
3 Blood Pressure.....	21
4 Systemic Circulation and Microcirculation.....	29
5 Regional Local Flow Regulation.....	39
Part II Respiratory Physiology.....	49
Introduction: Take a Slow, Deep Breath and Inspire the Concepts.....	50
6 Airflow.....	51
7 Upright Lung, Ventilation, and Blood Flow	61
8 Oxygen Respiratory Physiology.....	69
9 CO₂ Respiratory Physiology	79
10 Respiratory Control.....	89
Part III Renal Physiology.....	97
Introduction: Renal Physiology.....	98
11 Renal Hemodynamics and GFR	99
12 Tubular Function	109

13 Potassium and Calcium Balance.....	119
14 Water Balance	127
15 Sodium Balance.....	137
Part IV Cardio-Respi-Renal Physiology	147
Blessed are the Integrated, a Physiologic Sermon on the Mount.....	148
16 Cardiorespiratory Physiology.....	149
17 Cardiorenal Physiology	159
18 Respi-Renal Physiology	169
Bibliography	179