

# Contents

	<i>page</i>
<i>Contributors</i>	vii
<i>Foreword by Timothy W. Evans</i>	ix
<i>Preface</i>	xi
<i>Introductory Notes</i>	xiii
<b>1. Physiology of ventilation and gas exchange</b>	<b>1</b>
HUGH MONTGOMERY	
<b>2. Assessing the need for ventilatory support</b>	<b>21</b>
MICK NIELSEN AND IAIN MACKENZIE	
<b>3. Oxygen therapy, continuous positive airway pressure and non-invasive ventilation</b>	<b>32</b>
IAN CLEMENT, LEIGH MANSFIELD AND SIMON BAUDOUIN	
<b>4. Management of the artificial airway</b>	<b>54</b>
PETER YOUNG AND IAIN MACKENZIE	
<b>5. Modes of mechanical ventilation</b>	<b>88</b>
PETER MACNAUGHTON AND IAIN MACKENZIE	
<b>6. Oxygenation</b>	<b>115</b>
BILL TUNNICLIFFE AND SANJOY SHAH	
<b>7. Carbon dioxide balance</b>	<b>142</b>
BRIAN KEOGH AND SIMON FINNEY	
<b>8. Sedation, paralysis and analgesia</b>	<b>160</b>
RUSSELL R. MILLER III AND E. WESLEY ELY	
<b>9. Nutrition in the mechanically ventilated patient</b>	<b>184</b>
CLARE REID	
<b>10. Mechanical ventilation in asthma and chronic obstructive pulmonary disease</b>	<b>196</b>
DAVID TUXEN AND MATTHEW T. NAUGHTON	

*Contents*

11. Mechanical ventilation in patients with blast, burn and chest trauma injuries	210
WILLIAM T. McBRIDE AND BARRY McGRATTAN	
12. Ventilatory support: extreme solutions	222
ALAIN VUYLSTEKE	
13. Heliox in airway obstruction and mechanical ventilation	230
HUBERT TRÜBEL	
14. Adverse effects and complications of mechanical ventilation	239
IAIN MACKENZIE AND PETER YOUNG	
15. Mechanical ventilation for transport	284
TERRY MARTIN	
16. Special considerations in infants and children	296
ROB ROSS RUSSELL AND NATALIE YEANEY	
17. Tracheostomy	310
ABHIRAM MALICK, ANDREW BODENHAM AND IAIN MACKENZIE	
18. Weaning, extubation and de-cannulation	331
IAIN MACKENZIE	
19. Long-term ventilatory support	372
CRAIG DAVIDSON	
20. The history of mechanical ventilation	388
IAIN MACKENZIE	
<i>Glossary</i>	404
<i>Index</i>	411