

Section I: Preoperative Assessment

1. The Development of Thoracic Anesthesia and Surgery
2. Anatomic Correlates of Physiologic Function
3. Radiology of the Thorax
4. Intra-Thoracic Tumors: Current Status and Classification
5. Pulmonary Pathophysiology and Lung Mechanics in Anesthesiology
6. PHYSIOLOGY OF THE LATERAL POSITION AND ONE-LUNG VENTILATION
7. Modulating the Pulmonary Circulation: Nitric Oxide and Beyond

Section II: Preoperative Preparation

8. Preoperative Evaluation - Assessment of Preoperative Risk
9. Prerehabilitation for Thoracic Surgery

Section III: Intraoperative Preparation

10. Positioning in Thoracic Surgery
11. Monitoring of Oxygenation and Ventilation
12. Hemodynamic Monitoring in Thoracic Surgical Patients
13. Flexible and Rigid Bronchoscopy in Thoracic Anesthesia
14. High Frequency Ventilation: Applications in Thoracic Anesthesia

Section IV: Intraoperative Management

15. Anesthesia, Mechanical Ventilation and Hypoxic Pulmonary Vasoconstriction
16. Separation of the Lung: Double-Lumen Endotracheal Tubes and Endobronchial Blockers
17. Lung Isolation in Patients with a Difficult Airway in Thoracic Anesthesia
18. The Pathophysiology of Perioperative Lung Injury
19. Intraoperative lung injury during One-Lung Ventilation: causes and prevention
20. Management of One Lung Ventilation: Protective Lung Ventilation
21. Fluid Management During Lung Resection
22. Perioperative Arrhythmias During Thoracic Surgery
23. Anesthesia for Pediatric Thoracic Surgery

Section V: Post Operative Management

24. Postoperative Pain Management of Acute Pain
25. Post-Thoracotomy Chronic Pain
26. Postoperative Care of the Thoracic Patient
27. Postthoracotomy Complications
28. Extracorporeal Ventilatory Therapies

Section VI: Specific Anesthetic Considerations

29. Lung Volume Reduction Surgery
30. The Patient With Cardiovascular Disease for Lung Resection Surgery

31. Video Assisted Thoracoscopy: Multiportal, Uniportal
32. Endoscopic Treatment of COPD
33. Thoracic Trauma
34. Mediastinal Mass and SVC Syndrome
35. Mediastinoscopy
36. Lung Resection and Pulmonary Hypertension
37. Tubeless Thoracic Procedures
38. Thoracic Anesthesia for the Geriatric Patient
39. Thoracic Aortic Aneurysm Resection
40. Wedge Resection, Lobectomy, Pneumonectomy
41. Repair of Pectus Excavatum
42. Tracheal Resection and Reconstruction
43. Lung Transplantation
44. Esophageal Procedures
45. Airway Fistulas in Adults
46. Thoracic Approach to Spine Procedures
47. Myasthenia Gravis and Thymectomy
48. Hemoptysis, Empyema
49. Thoracic Anesthesia in the Morbidly Obese Patient: Obstructive Sleep Apnea
50. Cystic Fibrosis
51. Tracheal Stents
52. Robotic Thoracic Surgery
53. Enhanced Recovery After Thoracic Surgery
54. Ultrasound of the Lung: Clinical Applications
55. Transesophageal Echocardiography in Noncardiac Thoracic Surgery