

- 87 Bullous and Bleb Diseases of the Lung** . . . 1077
Talat Chughtai, Emilie Perron, Mathieu Simon, and
Jean Deslauriers
- 88 Lung Volume Reduction** 1099
Anastasios Polimenakis and Keith S. Naunheim
- 89 Bacterial Infections of the Lungs and
Bronchial Compressive Disorders** 1117
Joseph I. Miller, Jr.
- 90 Pulmonary Tuberculosis and Other
Mycobacterial Diseases of the Lung** 1131
Gregory Campbell and Jeffrey Glassroth
- 91 Surgery for the Management of Mycobacterium
Tuberculosis and Nontuberculous Mycobacterial
(Environmental) Infections of the Lung** . . 1149
Marvin Pomerantz and John D. Mitchell
- 92 Mycotic and Actinomycetic Infections of
the Lung** 1159
Shari L. Meyerson and David A. Harpole, Jr.
- 93 Pleuropulmonary Amebiasis** 1179
Mohan Verghese, Rajeev Kapoor, and Forrest C. Eggleston
- 94 Hydatid Disease of the Lung** 1187
Nickolaos N. Harlaftis, Homeros A. Aletras, and
Panagiotis N. Symbas
- 95 Pulmonary Paragonimiasis and Its Surgical
Complications** 1197
Hiroshi Mukae, Fukumi Nakamura-Uchiyama, and
Yufigumi Nawa
- 96 Solitary Pulmonary Nodule** 1205
Wilson M. Clements, John F. DeRosimo, and Carolyn E. Reed
- 97 Diffuse Lung Disease** 1213
Francis C. Nichols and Sebastian Defranchi
- 98 Lung Transplantation** 1241
Felix G. Fernandez and G. Alexander Patterson
- Section XV Statistical Analysis and Trial Design**
- 99 Evidence-Based Thoracic Surgery** 1269
Jemi Olak and Paul J. Karanicolas
- 100 Clinical Trial Design** 1277
Mary W. Redman and John J. Crowley
- 102 Screening for Lung Cancer: Challenges for
Thoracic Surgery** 1299
Brendon M. Stiles, Nasser K. Altorki, and
David F. Yankelevitz
- 103 Investigation and Management of Nodules
Less Than One Centimeter in Size** 1307
Ryosuke Tsuchiya
- 104 Pathology of Carcinoma of the Lung** 1311
Thomas W. Shields
- 105 The Sentinel Lymph Node in Non-Small-Cell
Carcinoma of the Lung** 1341
Michael J. Liptay
- 106 Present Concepts in the Molecular Biology
of Lung Cancer** 1345
David H. Harpole, Jr. and Mark Onaitis
- 107 Clinical Presentation of Lung Cancer** 1351
Matthew G. Blum
- 108 Radiologic Evaluation of Lung Cancer** . . . 1361
Patrick J. Fultz and Richard H. Feins
- 109 Diagnosis and Staging of Lung Cancer** . . . 1375
Carolyn E. Reed and Gerard A. Silvestri
- 110 Surgical Treatment of Non-Small-Cell
Lung Cancer** 1387
Joseph LoCicero III
- 111 Lymph Node Dissection for Lung
Cancer** 1427
Hisao Asamura
- 112 Unknown Primary Malignancy Metastatic
to Thoracic Lymph Nodes** 1435
Marc Riquet, Eugenia Banu, and
Christophe Foucault
- 113 Endoluminal Management of Malignant
Airway Disease** 1441
Joseph LoCicero III
- 114 Basic Principles of Radiation Therapy
in Locally Advanced Carcinoma of
the Lung** 1449
Bahman Emami, Nena Mirkovic, and Julian Rosenman
- 115 Radiation Therapy for Carcinoma of the
Lung** 1457
Ritsuko Komaki and James D. Cox
- 116 Adjuvant Chemotherapy for Non-Small-Cell
Lung Cancer** 1469
Natasha B. Leighl and Frances A. Shepherd
- 117 Neoadjuvant Therapy for Non-Small-Cell
Lung Cancer** 1483
Sunil Singhal, Joseph B. Shrager, and Larry R. Kaiser

VOLUME TWO

Section XVI Carcinoma of the Lung

- 101 Lung Cancer: Epidemiology and
Carcinogenesis** 1281
Charles S. Dela Cruz, Lynn T. Tanoue, and Richard A. Matthay

118 Novel Systemic Therapy for Advanced Non-Small-Cell Lung Cancer	1497	132 Esophageal pH Studies in Esophageal Disease	1707
Anne S. Tsao and Merrill S. Kies		Steven R. DeMeester and Tom R. DeMeester	
119 Emerging Technologies and Techniques for the Management of Non-Small-Cell Lung Cancer	1513	Section XX Diagnostic Studies	
Ricardo S. Santos, Fawad Khawaja, and Hiran C. Fernando		133 Radiologic Evaluation of the Esophagus ..	1719
120 Small-Cell Lung Cancer	1519	Richard M. Gore, Yahid Yaghmai, and Gary G. Ghahremani	
Thomas E. Stinchcombe and Mark A. Socinski		134 Endoscopy of the Esophagus	1735
121 Novel Strategies for Lung Cancer Immunotherapy	1529	Richard Lazzaro and Joseph LoCicero III	
Dominik Rüttinger, Rudolf Hatz, Karl-Walter Jauch, and Bernard A. Fox		Section XXI Operative Procedures in the Management of Esophageal Disease	
Section XVII Other Tumors of the Lung		135 Modified Heller Myotomy	1745
122 Carcinoid Tumors	1539	Richard Lazzaro and Joseph LoCicero III	
Juan C. Escalon and Frank C. Detterbeck		136 Transthoracic Resection of the Esophagus	1751
123 Adenoid Cystic Carcinoma and Other Primary Salivary Gland-Type Tumors of the Lung	1555	Mark S. Allen	
Richard S. D'Agostino		137 Extended Resection for Esophageal Carcinoma	1759
124 Benign Tumors of the Lung	1565	Jeffrey L. Port, Paul Lee, and Nasser K. Altorki	
Philip G. Robinson and Thomas W. Shields		138 Transhiatal Esophagectomy Without Thoracotomy	1771
125 Uncommon Primary Malignant Tumors of the Lung	1591	Mark B. Orringer	
Thomas W. Shields and Philip G. Robinson		139 Vagal-Sparing Esophagectomy	1795
126 Secondary Tumors of the Lung	1619	Steven R. DeMeester	
Mark S. Allen and Joe B. Putnam, Jr.		140 Video-Assisted Esophageal Resection	1801
127 Lung Tumors in the Immunocompromised Host	1647	Christopher R. Morse, Manisha R. Shende, and James D. Luketich	
Philip G. Robinson and Joseph LoCicero III		141 Replacement of the Esophagus with Colon	1811
		Ronald H. R. Belsey	
PART B: The Esophagus		142 Replacement of the Esophagus with Jejunum	1819
		Henning A. Gaissert, Cameron D. Wright, and Douglas J. Mathisen	
Section XVIII Anatomy		143 Free Intestinal Transfer Techniques in Reconstruction of the Esophagus	1827
128 Embryology of the Esophagus	1665	Babak J. Mehrara and Joseph J. Disa	
Mala R. Chinoy		144 Esophageal Stents	1835
129 Anatomy of the Esophagus	1675	Wilson S. Tsai, Miguel Alvelo-Rivera, and James D. Luketich	
Victor Maevsky and Thomas J. Watson		Section XXII Trauma to the Esophagus	
130 Lymphatic Drainage of the Esophagus	1683	145 Foreign Bodies in the Esophagus	1843
Linda W. Martin and Mark J. Krasna		Gregory A. Coté and Ikuo Hirano	
Section XIX Physiology		146 Esophageal Trauma	1851
131 Physiology and Physiologic Studies of the Esophagus	1691	Julian Guitron, John A. Howington, and Joseph LoCicero III	
André C. H. Duranceau and Pasquale Ferraro			

Section XXIII Benign Esophageal Disease

- 147 Congenital Anomalies of the Esophagus** 1867
David H. Rothstein and Marleta Reynolds
- 148 Inflammatory Diseases of the Esophagus** 1881
Arvydas D. Vanagunas and Robert M. Craig
- 149 Esophageal Motility Disorders** 1887
Andrea S. Wolf and Cameron D. Wright
- 150 Chagas' Disease of the Esophagus** 1901
Manoel Ximenes III
- 151 Surgical Therapy for Gastroesophageal Reflux Disease** 1913
Mark J. Krasna
- 152 Barrett's Esophagus** 1925
Matthew J. Schuchert and James D. Luketich
- 153 Esophageal Endoscopic Procedures in Thoracic Surgery** 1937
Susan Ramdhaney and Scott Tenner
- 154 Cardial Incompetence and Associated Gastroesophageal Reflux** 1947
Katherine A. Barsness and Marleta Reynolds
- 155 Paraesophageal Hiatal Hernia** 1951
Keith S. Naunheim and Melanie Edwards
- 156 Esophageal Diverticula** 1961
Stephen D. Cassivi, Francis C. Nichols, and Claude Deschamps
- 157 Benign Tumors, Cysts, and Duplications of the Esophagus** 1973
Matthew A. Facktor and Mark R. Katlic

Section XXIV Malignant Lesions of the Esophagus

- 158 Carcinoma of the Esophagus** 1983
Jasmine Huang, Mohammad Bashir, and Mark D. Iannettoni
- 158 Appendix: 2009 AJCC/UICC Staging of Esophageal Cancer** 2013
Thomas W. Rice, Valerie W. Rusch, and Eugene H. Blackstone
- 159 Multimodality Therapy for Esophageal Cancer** 2017
Geoffrey Y. Ku and David H. Ilson
- 160 Surgical Palliation of Inoperable Carcinoma of the Esophagus** 2031
Abbas Abbas and Carolyn E. Reed
- 161 Less Common Malignant Tumors of the Esophagus** 2041
Amit Goldberg

PART C: The Mediastinum**Section XXV Anatomy**

- 162 The Mediastinum, Its Compartments, and the Mediastinal Lymph Nodes** 2055
Thomas W. Shields
- 163 The Thymus** 2059
Thomas W. Shields
- 164 Mediastinal Parathyroids** 2069
Thomas W. Shields
- 165 Neurogenic Structures of the Mediastinum** 2073
Thomas W. Shields

Section XXVI Noninvasive Investigations

- 166 Radiographic, Computed Tomographic, and Magnetic Resonance Investigation of the Mediastinum** 2079
Wallace T. Miller, Jr. and Rosita M. Shah
- 167 Radionuclide Studies of the Mediastinum** 2103
William G. Spies
- 168 Mediastinal Tumor Markers** 2131
Philip G. Robinson

Section XXVII Invasive Diagnostic Investigations and Surgical Approaches

- 169 Transcervical Mediastinal Lymph Node Sampling and Lymphadenectomy** 2147
Richard S. Lazzaro and Joseph LoCicero III
- 170 Sternotomy and Thoracotomy for Mediastinal Disease** 2153
Joseph LoCicero III
- 171 Video-Assisted Thoracic Surgery for Diseases Within the Mediastinum** 2157
Alberto de Hoyos
- 172 Primary Pneumomediastinum** 2177
Matthew G. Blum and Alberto de Hoyos

Section XXVIII Mediastinal Infections, Overview of Mass Lesions in the Mediastinum, and Control of Vascular Obstructing Symptomatology

- 173 Acute and Chronic Mediastinal Infections** 2181
Michael J. Liptay and Anthony W. Kim
- 174 Primary Mediastinal Tumors and Cysts and Diagnostic Investigation of Mediastinal Masses** 2195
James M. Donahue and Francis C. Nichols

175 Lesions Masquerading as Primary Mediastinal Tumors or Cysts	2201	192 Benign Germ Cell Tumors of the Mediastinum	2389
Thomas W. Shields		Mark S. Allen, Victor F. Trastek, and Peter C. Pairolero	
176 Vascular Masses of the Mediastinum	2223	193 Primary Seminomas of the Mediastinum	2397
Alberto de Hoyos, Ali Dodge-Khatami, and Carl L. Backer		David C. Rice, Cesar A. Moran, Robert J. Dabal, and Douglas E. Wood	
177 Superior Vena Cava Syndrome: Clinical Features, Diagnosis, and Treatment.	2247	194 Nonseminomatous Malignant Germ Cell Tumors of the Mediastinum	2403
P. Michael McFadden		John D. Hainsworth and F. Anthony Greco	
178 Vein Grafts for the Superior Vena Cava	2255	195 Poorly Differentiated Carcinoma of the Mediastinum	2411
John R. Doty and Donald B. Doty		John D. Hainsworth and F. Anthony Greco	
179 The Use of Prosthetic Grafts to Replace the Superior Vena Cava	2261	196 Benign and Malignant Neurogenic Tumors of the Mediastinum in Children and Adults	2415
Sacha Mussot and Philippe G. Darteville		Marleta Reynolds and Thomas W. Shields	
Section XXIX Primary Mediastinal Tumors and Syndromes Associated with Mediastinal Lesions		197 Excision of Hourglass Tumors of the Paravertebral Sulcus	2441
180 Myasthenia Gravis	2267	A. John Popp, Makoto Goda, Darryl J. DiRisio, and Darroch W. O. Moores	
David S. Younger		198 Mediastinal Paragangliomas and Pheochromocytomas.	2447
181 Pathophysiology of Myasthenia Gravis.	2273	Raja R. Gopaldas and David C. Rice	
Jun Li and Robert P. Lisak		199 Mesenchymal Tumors of the Mediastinum	2473
182 Standard Thymectomy	2277	Thomas W. Shields and Philip G. Robinson	
Francis C. Nichols and Victor F. Trastek		200 Mediastinal Parathyroid Tumors.	2499
183 Transcervical Thymectomy	2283	Raja R. Gopaldas, David C. Rice, Ann-Greth Bondeson, and Norman W. Thompson	
Smit Singla and Joseph B. Shrager		Section XXX Mediastinal Cysts	
184 Video-Assisted Thymectomy	2293	201 Foregut Cysts of the Mediastinum in Infants and Children	2511
Mitchell J. Magee and Michael J. Mack		Anthony Chin and Marleta Reynolds	
185 Extended Transsternal Thymectomy.	2297	202 Foregut Cysts of the Mediastinum	2519
Akira Masaoka		Pasquale Ferraro, Jocelyne Martin, and André C. H. Duranceau	
186 Transcervical-Transsternal Maximal Thymectomy for Myasthenia Gravis	2305	203 Gastroenteric Cysts and Neurenteric Cysts in Infants and Children	2531
Joshua R. Sonett and Alfred Jaretzki III		Alan P. Ladd, Robert J. Touloukian, Frederick J. Rescorla, and Jay L. Grosfeld	
187 Evaluation of Results of Thymectomy for Nonthymomatous Myasthenia Gravis	2313	204 Mesothelial and Other Less Common Cysts of the Mediastinum	2539
Joshua R. Sonett and Alfred Jaretzki III		Gaetano Rocco and Thomas W. Shields	
188 Thymic Tumors	2323		
Thomas W. Shields			
189 Benign Lymph Node Disease Involving the Mediastinum	2363		
Jemi Olak			
190 Biological Markers and Pathology of Mediastinal Lymphomas	2369		
Michael J. Kornstein			
191 Diagnosis and Treatment of Mediastinal Lymphomas	2379		
Sonali Smith and Koen van Besien			