Textbook of SURGERY

THE BIOLOGICAL
BASIS OF MODERN
SURGICAL PRACTICE

THIRTEENTH EDITION

Bdited by

DAVID C. SABISTON, Jr., M.D.

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Surgical Complications

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Surgical Treatment of Pulmonary Tuberculosis

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Fat Embolism Syndrome

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Acquired Disorders of the Aortic Valve

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The Biliary System: Acute Cholecystitis; Chronic

Cholecystitis and Cholelithiasis; Cholangitis

Hassan Najafi, M.D.

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Principles of Immunosuppression

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Renal Transplantation

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The Colon and Rectum: Anatomy; Physiology;
Diagnostic Studies; Intestinal Antisepsis and
Peritonitis; Mechanical, Inflammatory, Vascular, and
Miscellaneous Benign Lesions; Precancerous and
Malignant Lesions

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Acquired Disorders of the Aortic Valve

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Disorders of Pulmonary Venous Return

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Tendon Injury and Repair

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Warren H. Cole Professor and Head, Department of Surgery, University of Illinois College of Medicine at Chicago. Surgeon-in-Chief, University of Illinois Hospital; Senior Consultant Surgeon, Cook County Hospital and Westside Veterans Administration Hospital, Chicago, Illinois. Hernias

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Surgical Management of Myasthenia Gravis

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Trauma: Management of the Acutely Injured Patient

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The Esophagus: Historical Aspects and Anatomy;
Physiology; Disorders of Esophageal Motility;
Diverticula and Miscellaneous Conditions;
Esophagoscopy; Tumors of the Esophagus

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Ventricular Septal Defects; Double Outlet Right
Ventricle

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Bronchial Adenoma

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The Urinary System

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Preoperative Preparation of the Surgical Patient

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The Surgical Approach to Morbid Obesity

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Arterial Substitutes; Raynaud's Syndrome

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Burns, Including Cold, Chemical, and Electrical Injuries Kenneth P. Ramming, M.D.

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Radiologic Techniques for Diagnosis of Surgical Disorders

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Disorders of the Chest Wall

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Pancreas and Pancreatic Islet Transplantation

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Abdominal Wall, Umbilicus, Peritoneum, Mesenteries, Omentum, and Retroperitoneum

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Gallstone Ileus and Fistula

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Pulmonary Embolism; Disorders of the Arterial System: Introduction; Anatomy; Aneurysms: Subclavian Artery Aneurysms, Visceral Arterial Aneurysms, Aortic Abdominal Aneurysms; Thrombo-Obliterative Disease of the Aorta: Takayasu's Arteritis, Thrombotic Obliteration of the Abdominal Aorta, Iliac Arterial Occlusion, Percutaneous Transluminal Angioplasty, Arteriovenous Fistula; Carcinoma of the Lung; The Mediastinum; Tetralogy of Fallot; The Coronary Circulation; Cardiac Blood Flow and Cardiac Metabolism; Congenital Lesions of the Coronary Circulation; Cardiac Neoplasms

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The Pleura and Empyema

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Immunobiology and Immunotherapy of Neoplastic Disease; Melanoma

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The Skin: Functional, Metabolic, and Surgical Considerations

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Cardiac and Cardiopulmonary Hemotransplants

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Principles of Immunosuppression

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Aneurysms of the Carotid Aorta; Carotid Body Tumors

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Atrial Septal Defects, Ostium Primum Defects, and

Atrioventricular Canals

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Fractures of the Spine; Replantation of Amputated Digits and Hands

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Atrial Septal Defects, Ostium Premum Defects, and

Atrioventricular Canals

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Surgical Complications of Cirrhosis and Portal

Hypertension

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Polypoid Lesions of the Colon and Rectum

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The Male Genital System

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Multiple Endocrine Neoplasias; The Parathyroid Glands; The Pituitary and Adrenal Glands

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Replantation of the Upper Extremity Proximal to the Hand

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Mouth, Jaws, Tongue, and Salivary Glands

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Homeostasis: Bodily Changes in Trauma and Surgery

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The Breast

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Dissecting Aneurysms of the Aorta; Traumatic
Aneurysms of the Aorta; Disorders of the Lungs,
Pleura, and Chest Wall: Anatomy, Evaluation of
Respiratory Function

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The Pancreas

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SIR WILLIAM OSLER

In planning the thirteenth edition, a firm commitment has again been made to assuring a thorough and complete text in the broad field of surgery. The traditional policy of seeking the most authoritative contributors for each section has been maintained, and in the present edition there are 49 new contributors. Each of these new participants is clearly identified as a major contributor to both the clinical and the investigative aspects of the subject. Many new illustrations have been added, pursuing the firm conviction that such are essential for a thorough understanding of clinical problems and their diagnosis and management.

Since the publication of the last edition, numerous advances have been made in the field of general surgery and the surgical specialties and these have required careful and diligent updating. These new contributions have been added to each chapter, and the references have been thoroughly reviewed and made current. Emphasis has once again been placed upon beginning each section with a brief but pertinent historical survey with an orderly stepwise presentation of the anatomic, pathologic, physiologic, biochemical, immunologic, and pharmacologic aspects of each subject. In addition to the new contributors, six new sections have been introduced in order to remain abreast of the rapid pace of surgical progress. These include: "Surgical Complications of Cirrhosis and

Portal Hypertension" by J. Michael Henderson and W. Dean Warren; "Vascular Access Procedures for Renal Dialysis (Including Peritoneal Dialysis)" by James Cerilli and Carl Haisch; "Peritoneovenous Shunts for Intractable Ascites" by Bernard Langer and Paul D. Greig; "Extracranial-Intracranial Bypass Grafts for Cerebral Ischemia" by Allan H. Friedman; "Use of Intra-Aortic Balloon Counterpulsation Technique" by W. Randolph Chitwood; and "The Total Artificial Heart" by William C. DeVries. These new sections add much to the thoroughness of the thirteenth edition, and it is fortunate that outstanding and easily identifiable authorities in each of these endeavors have agreed to participate.

Finally, it is a privilege to emphasize the *international* impact of this TEXTBOOK OF SURGERY, since it has been published in Spanish, Japanese, Chinese, Portuguese, Italian, and Turkish editions. The fundamental goal of this effort is direct and straightforward, that is, it is designed to serve the needs of all those involved in the science of surgery, including medical students, surgical residents, practicing surgeons, and teachers of surgery in medical schools and hospitals throughout the world.

DAVID C. SABISTON, JR.

ACKNOWLEDGMENTS

The Editor is indebted to all contributors to this edition of the TEXTBOOK OF SURGERY and wishes to emphasize that each is an outstanding authority. All participants have been diligent in their balance between appropriate presentation of basic and clinical science. Their updating of their respective contributions has been praiseworthy, and the choice of new illustrations and references brings the text to a new standard of completeness.

Mr. Carroll C. Cann is deserving of special tribute in view of his complete commitment to this edition and support of all phases of the extensive revisions. The assistance of Ms. Carolyn Naylor of the W. B. Saunders staff has been of much significance and her continuing commitment to this text is deeply appreciated. Special thanks are due Mr. Robert Butler, the production manager; Mr. William Donnelly, the designer; Ms. Margaret Shaw, in charge of illustrations; and Ms. Charlotte Fierman, the manuscript editor. Each has worked diligently on the new edition and their efforts have brought the entire text to a new level of excellence.

As in the past, Ms. Kathryn Slaughter has continued her extraordinary devotion to this text. Her editorial preparation of many of the contributions and careful review given every aspect of this undertaking have been exceptional. The many hours of loyal dedication coupled with her enthusiasm for the complete work are gratefully acknowledged.

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