

SABISTON
TEXTBOOK OF
SURGERY



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TEXTBOOK OF
SURGERY
The Biological Basis of Modern Surgical Practice

18th
EDITION

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SABISTON TEXTBOOK OF SURGERY

Basic Edition ISBN: 978-1-4160-3675-3
Premium Edition ISBN: 978-1-4160-5233-3
International Edition ISBN: 978-0-8089-2401-2

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Library of Congress Cataloging-in-Publication Data

Sabiston textbook of surgery: the biological basis of modern surgical practice.—18th ed. / editors, Courtney M. Townsend Jr. . . . [et al.].

p. ; cm.

Includes bibliographical references and index.

ISBN 978-1-4160-3675-3

1. Surgery. I. Sabiston, David C. II. Townsend, Courtney M. III. Title: Textbook of surgery.

[DNLM: 1. Surgical Procedures, Operative. 2. Perioperative Care. 3. Surgery. WO 100 T3552 2008]

RD31.T473 2008

617—dc22

2007022754

Publishing Director: Judy Fletcher

Senior Developmental Editor: Scott Scheidt

Publishing Services Manager: Tina Rebane

Senior Project Manager: Amy L. Cannon

Printed in Canada

Last digit is the print number: 9 8 7 6 5 4 3 2 1

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*To our patients, who grant us the privilege of practicing our craft;
to our students, residents, and colleagues, from whom we learn;
and to our wives—Mary, Shannon, Karen, and June—
without whose support this would not have been possible.*

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Thyroid

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Morbid Obesity

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Bone Tumors

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Biliary System

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Transplantation of Abdominal Organs

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Hematologic Principles in Surgery

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Anesthesiology Principles, Pain Management, and Conscious Sedation

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Soft Tissue Sarcomas

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Diseases of the Breast

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Lung (Including Pulmonary Embolism and Thoracic Outlet Syndrome)

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Melanoma and Cutaneous Malignancies

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The Parathyroid Glands

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Acute Abdomen

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Exocrine Pancreas

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Access and Ports

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Chest Wall and Pleura

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Tumor Biology and Tumor Markers

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Acute Gastrointestinal Hemorrhage

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Metabolism in Surgical Patients

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Endocrine Pancreas

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Endocrine Pancreas

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

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The Parathyroid Glands

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Melanoma and Cutaneous Malignancies

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The Mediastinum

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Principles of Preoperative and Operative Surgery

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Regenerative Medicine

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Pediatric Surgery

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Surgical Patient Safety

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The Spleen

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Peripheral Arterial Occlusive Disease

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Breast Reconstruction

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Anesthesiology Principles, Pain Management, and Conscious Sedation

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Burns

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Transplantation of Abdominal Organs

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The Adrenal Glands

| FOREWORD

***“To study the phenomena of disease without books is to sail
an uncharted sea . . .”***

SIR WILLIAM OSLER (1849–1919)

During the past 3 score and 7 years, this surgical text, edited successively by Christopher (5 editions), Davis (4 editions), Sabiston (6 editions), and now Townsend (3 editions), has charted the surgical seas for generations of surgeons throughout their careers as they progressed from students to practitioners and teachers. Dr. Townsend and his three associate editors have added to the innovations that they initiated in the 15th edition in recognition of the ever-increasing velocity of acquisition of knowledge, expansion of surgical practice, and application of new technology. This edition is organized into 13 sections—focused on basic principles of surgery, organ-specific general surgical care, and the surgical super-specialties—to recapitulate the content of the American Board of Surgery certifying examination. The editorial team has added more than 50 new members to the all-star cast of authors for the 77 chapters that provide global coverage of surgery.

Of all the surgical texts, this one most successfully integrates information from the laboratory to illuminate the rationale for surgical care. Each chapter begins with a chapter outline and contains other tables presenting checklists of key principles and practices. Abundant use is made of color in illustrative photographs and drawings and to emphasize important aspects of graphs and tables. A unique feature is the citation and brief summary of seminal articles, which are beyond the reach of short-time span search programs, designed to inform the reader how we arrived at the current state-of-the-art.

The new chapters about patient safety considerations, bedside procedures, and regenerative medicine provide the reader with charts of previously unexplored surgical seas. Dr. Townsend and his colleagues have further enhanced the value of this classic work by bringing it into the world of electronic education. Expert Consult will facilitate lifetime learning by giving access to the fully searchable complete book content online, along with updates, references linked to Medline, downloadable illustrations, and “bonus” articles from surgical periodicals, as well as review questions that can be used in preparing for examinations.

In sum total, this volume sets a new standard for surgical textbooks. The information contained in this, Dr. Townsend’s 3rd and overall the 18th, edition of this venerable text ensures smooth sailing in the currently turbulent surgical seas.

BASIL A. PRUITT, JR., MD

| P R E F A C E

Surgery continues to evolve as new technology, techniques, and knowledge are incorporated into the care of surgical patients. Safety is paramount in care of our surgical patients. We have included a new chapter in this edition of *Sabiston Textbook of Surgery* about our roles and responsibilities to ensure safety. Surgeons, traditional leaders in mass casualty situations, face new problems and challenges in the era of bioterrorism. Distant surgery, employing robotic and telementoring technology, has become a reality. Minimally invasive techniques are being employed in almost all invasive procedures. Increased understanding of molecular genetic abnormalities has expanded the application of preemptive surgical operations to prevent cancer.

The 18th edition of the *Sabiston Textbook of Surgery* reflects these exciting changes and new knowledge. We have incorporated 3 new chapters and more than 50 new authors to ensure that the most current information is presented. The goal of this new edition is to remain the most thorough, useful, readable, and understandable textbook presenting the principles and techniques of surgery. It is designed to be equally useful to students, trainees, and experts in the field. We are committed to maintaining this tradition of excellence begun in 1936. Surgery, after all, remains a discipline in which the knowledge and skill of a surgeon combine for the welfare of our patients.

COURTNEY M. TOWNSEND, JR., MD

| ACKNOWLEDGMENTS

We would like to recognize the invaluable contributions of editor Paul Waschka, publication coordinators Karen Martin, Steve Schuenke, and Eileen Figueroa, and administrator Barbara Petit. Their dedicated professionalism, tenacious efforts, and cheerful cooperation are without parallel. They accomplished whatever was necessary, often on short or instantaneous deadlines, and were vital for the successful completion of the endeavor.

Our authors, respected authorities in their fields and busy physicians and surgeons all, did an outstanding job in sharing their wealth of knowledge.

We would also like to acknowledge the professionalism of our colleagues at Elsevier: senior developmental editor Scott Scheidt, publication services manager Tina Rebane, senior project manager Amy Cannon, and publishing director Judith Fletcher.