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# Fundamentals of General Surgery

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Francesco Palazzo  
Editor

# Fundamentals of General Surgery

With Contribution by  
Michael J. Pucci

 Springer

*Editor*

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*To my wife, Silvia, and to my children Gaia, Giada, and Bruno;  
to the many mentors who contributed to the field of General  
Surgery and to the Jefferson residents, present and past, for  
inspiring me to strive for clarity and excellence every single  
day.*

Francesco Palazzo

*To my family whom have supported me in every way  
to allow me to pursue my dream. To the masters and  
mentors of surgery whom have inspired me to continually  
strive for technical excellence. To the patients whom  
entrust me with their care, and provide endless learning  
opportunities for myself and our trainees. And finally,  
to the resident surgeons I have the opportunity to learn  
from and teach. Your endless thirst for knowledge and  
mastery of surgical skills inspires and drives me to  
continue to improve in all skills necessary for the  
transference of surgical ability.*

Michael J. Pucci

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## Foreword: Why Another Textbook of Surgery?

So, why offer another textbook in the domain of Surgery? Certainly, there have been numerous surgical textbooks published over the last few centuries. New books continue to be added annually, as older textbooks cease to be revised. New areas of surgical specialty are developed, and textbooks are composed. In addition to books, we have journals, webcasts, audio guides, blogs, newsfeeds, and many other sources of information to assist the surgical learner. This book is designed to be different!

The intent of this book is to provide medical students, surgical physician assistants, surgical nurse practitioners, surgical residents, and surgical fellows with a novel resource—a place where they can find modern surgical knowledge upon which to base their surgical development. This book includes information that is typically transferred in the operating room setting, or at the bedside, but is frequently lost or limited during current training due to shorter work hours or due to the lesser amount of direct observation or interaction as part of teaching rounds, serving as a second assistant, etc. That is, much of what is contained herein is not typically contained in other textbooks, but rather has been transmitted verbally from the master to the learner.

So, enjoy the content of this textbook. There are many chapters on the operating room and its setup, patient positioning and skin preparation, retractors, and robotics. Contained here are useful discussions of gastrointestinal anastomoses, laparotomy for trauma, temporary abdominal wall closure, acceptable behavior in the operating room, and management of the operative catastrophe. Every topic is current, important, timely, and well discussed.

In the spirit of full disclosure, I must admit to a certain bias. The two editors of this textbook are young rising star members of our faculty at the Sidney Kimmel Medical College of Thomas Jefferson University. They both served as chief residents at Thomas Jefferson, and they both went on to fellowship training: Dr. Palazzo at the University of California—San Francisco

(UCSF) and Dr. Pucci here at Thomas Jefferson. I have scrubbed with both of these editors—they are superb surgeons and extraordinarily talented and caring physicians. Acknowledging this bias, I nonetheless enthusiastically recommend this textbook. I have learned much from the chapters I have read.

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## Preface

It is with great excitement that we present to you the first edition of *Fundamentals of General Surgery*. This book you hold in your hands—or more likely read on a computer screen—is the result of long conversations, reflections, and some degree of whining that have followed the many elective, urgent, and emergent procedures we have been lucky enough to bring to successful completion during our last several years in practice in Philadelphia.

While surgical education continues to rely on textbooks (or videos), oral transference of information at the bedside or in the operating room, and technical expertise demonstrated by and practiced with skilled mentors, it seems that current limitations have made it, at times, fragmented and not always uniformly delivered to all trainees. This book hopes to bridge the gap that exists between surgical education and the practice of surgery for novice and expert surgical trainees of all levels.

Herein you will find valuable information that is at times based on evidence, and other times based on years of practice in countless procedures. You will be able to use this when you need to take a patient to the operating room, when you first set foot in the operating room, when you need to independently position your first patient for a low anterior resection, but also for when you begin to construct your first gastrointestinal or vascular anastomoses. A sizeable portion of the book looks at sutures, knots, and instruments we use to make our procedures possible and safe (from retractors, to dissectors, to energy devices). Much focus is devoted to key concepts of trauma surgery which we believe any general surgeon should be familiar with; and an equally important portion of the book is dedicated to the frequently unaddressed concepts of progression from resident to independent surgeon, etiquette in the operating room, leadership and followership, and how to manage your time successfully. In each chapter we have asked the authors to provide a brief historical background, discuss some controversial areas, and present a list of recommended readings.

We are proud of the fact that this book should not be consulted frantically while preparing for the ABSITE or the American Board of Surgery qualifying exam. What can be found in these pages is not meant to be “swallowed whole and quick” but is meant to be carefully read, re-read, and slowly digested alternating practice, questions to your mentors, and review of this text (and many others) which is the only way to make knowledge easily retrievable and long lasting.

We are indebted to the many superb authors who contributed chapters to this book for their knowledge, their dedication, and willingness to invest their valuable time with a new editorial concept of surgical education. We have both read the chapters many times, have enjoyed them, and have learned much: our deepest thanks go to all of you!

A special acknowledgment goes to Jennifer Brumbaugh, MA, who is the medical illustrator and webmaster in the Department of Surgery at the Sidney Kimmel Medical College of Thomas Jefferson University, and who has worked with us on several of these chapters providing (once again) top-notch illustrations that complement and enrich the text.

We would also like to thank the production team at Springer UK and Springer Nature that have made this possible and deserve to be mentioned: Melissa Morton, Leo Johnson, Prakash Jagannathan, and many others.

We hope that this book will serve the many out there entering the fascinating world of General Surgery so that their journey can be easier and lead to the mastery we all seek. On the other hand, for those among us who have been navigating these waters for a few years this book may offer a new way to teach “young dogs some of the old tricks.”

Philadelphia, PA, USA  
Philadelphia, PA, USA

Francesco Palazzo  
Michael J. Pucci



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# Contents

<b>1</b>	<b>Fundamentals of Patient Preparation for the Operating Room in the Twenty-First Century</b> . . . . .	<b>1</b>
	Emily A. Pearsall and Robin S. McLeod	
<b>2</b>	<b>Fundamentals of Operating Room Setup and Surgical Instrumentation</b> . . . . .	<b>17</b>
	Katerina Dukleska, Allison A. Aka, Adam P. Johnson, and Karen A. Chojnacki	
<b>3</b>	<b>Fundamentals of Sutures, Needles, Knot Tying, and Suturing Technique</b> . . . . .	<b>39</b>
	Jessica A. Latona, Sami Tannouri, Francesco Palazzo, and Michael J. Pucci	
<b>4</b>	<b>Fundamentals of Patient Positioning and Skin Prep</b> . . . . .	<b>65</b>
	Giulio Giambartolomei, Samuel Szomstein, Raul Rosenthal, and Emanuele Lo Menzo	
<b>5</b>	<b>Fundamentals of Incisions and Skin Closures</b> . . . . .	<b>83</b>
	Folasade O. Imeokparia, Michael E. Villarreal, and Lawrence A. Shirley	
<b>6</b>	<b>Fundamentals of Retractors and Exposure</b> . . . . .	<b>95</b>
	Michael B. Ujiki and H. Mason Hedberg	
<b>7</b>	<b>Fundamentals of Dissection</b> . . . . .	<b>107</b>
	Neal S. McCall and Harish Lavu	
<b>8</b>	<b>Fundamentals of Surgical Hemostasis</b> . . . . .	<b>119</b>
	Daniel J. Deziel	
<b>9</b>	<b>Fundamentals of Energy Utilization in the Operating Room</b> . . . . .	<b>129</b>
	Amin Madani and Carmen L. Mueller	
<b>10</b>	<b>Fundamentals of Stapling Devices</b> . . . . .	<b>137</b>
	Christina Souther and Kenric Murayama	
<b>11</b>	<b>Fundamentals of Drain Management</b> . . . . .	<b>143</b>
	Guillaume S. Chevrollier, Francis E. Rosato, and Ernest L. Rosato	
<b>12</b>	<b>Fundamentals of Flexible Endoscopy for General Surgeons</b> . . . . .	<b>163</b>
	Robert D. Fanelli	

---

**13 Fundamentals of Prosthetic Materials for the Abdominal Wall** ..... 175  
 Udai S. Sibia, Adam S. Weltz, H. Reza Zahiri, and Igor Belyansky

**14 Fundamentals of Basic Laparoscopic Setup** ..... 189  
 Marc Rafols, Navid Ajabshir, and Kfir Ben-David

**15 Fundamentals of Laparotomy Closure** ..... 207  
 William W. Hope and Michael J. Rosen

**16 Fundamentals of Robotic Surgery** ..... 215  
 Tomoko Mizota, Victoria G. Dodge, and Dimitrios Stefanidis

**17 Fundamentals of Gastrointestinal Anastomoses** ..... 227  
 Talar Tatarian, Andrew M. Brown, Michael J. Pucci, and Francesco Palazzo

**18 Fundamentals of Vascular Anastomosis** ..... 239  
 Selena G. Goss and Dawn M. Salvatore

**19 Fundamentals of Exploratory Laparotomy for Trauma** ..... 253  
 Chia-jung K. Lu and Joshua A. Marks

**20 Fundamentals of Temporary Abdominal Wall Closure** ..... 265  
 Shelby Resnick and Niels D. Martin

**21 Fundamentals of Exploratory Thoracotomy for Trauma** ..... 275  
 Deepika Koganti and Alec C. Beekley

**22 Fundamentals of Becoming a Safe and Independent Surgeon (From First Assistant to Skilled Educator)** ..... 289  
 Nabeel R. Obeid and Konstantinos Spaniolas

**23 Fundamentals of Acceptable Behavior in the Operating Room (Etiquette)** ..... 297  
 Annie P. Ehlers and Andrew S. Wright

**24 Fundamentals of the Daily Routine as a Surgeon: Philosophy, Mentors, Coaches, and Success** ..... 307  
 Charles J. Yeo

**25 Fundamentals of Managing the Operative Catastrophe** ..... 321  
 Idalid Franco, David L. Hepner, William R. Berry, and Alexander F. Arriaga

**Index** ..... 339

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