

Preface

Remarkable advances in research, technology, and clinical experience in medicine over the past few decades have resulted in a strong surge of development in reconstructive surgery. Each field of medicine brings about a unique perspective on a disease and its treatment. The patients are the direct beneficiaries of these advances and we, as surgeons, are rewarded with the gift of knowing that we have given hope and provided new opportunities for those who have been disfigured or rendered dysfunctional. The change to the patients' lives and the reward we derive from providing them with a chance to become "normal" again are equally gratifying. The field of surgery is truly rewarding; we are often able to eradicate a disease, improve a condition, rewire a circuit, or recreate form and function. We truly believe that no specialty in medicine is as rewarding as reconstructive surgery, where conditions that were impossible to correct only a few decades ago are now treated with sophisticated and technically advanced procedures on a routine basis.

In order to truly appreciate the significance of this specialty, visualize the following scenarios and the vast number of possibilities that reconstructive surgery offers in dealing with these clinical challenges: a child with missing fingers trying to play with a toy; a young girl unable to symmetrically animate her face trying to explain to her classmates why she looks "funny" when she tries to smile; a teenage boy with an open wound on his leg who has been told that he may need to have his leg amputated; a middle-aged man with a defect in his esophagus being told that he will not be able to eat or drink from his mouth for the rest of his life; a 35-year-old woman trying to conceal a deformed chest after a mastectomy; the family of a 50-year-old man being told that their loved one who underwent a routine coronary bypass procedure may not leave the hospital because of a sternal wound infection that may take his life; and a 14-year-old girl with a brachial plexus injury being unable to reach her hand to her mouth. As a reconstructive surgeon, one may have been exposed to some or all of these situations and may also know that through our field we are capable of bringing hope in a bleak situation.

Reconstructive surgery spans all ages and all specialties. This is part of what makes this specialty unique, challenging, exciting, and unusually rewarding. Elegance and surgical skill are easily noticed and appreciated by our patients. It is difficult to be a reconstructive surgeon and not take special pride in every procedure performed and in positive outcomes seen. Likewise, every surgeon has experienced the consequences of a heroic effort that was unsuccessful. We are able to survive these experiences as surgeons because of our human nature of being able to forget, but, more importantly, for us to be able to forget, we need to know that we have learned as much as we can about a procedure before

performing it and have gathered as much information as possible and reviewed all the necessary material before embarking on a reconstructive effort. Every contributing author has detailed the anatomic basis for the way the described procedures are performed and made every effort to share as much detail of the technique, with colorful and detailed illustrations and pictures, and to provide as many tips as possible from the knowledge and wisdom they have gained during the course of their career. We have been fortunate to be able to bring together a phenomenal group of surgeons and scientists who have had a tremendous amount of experience with reconstructive surgery, and we have tried very hard to bring consistency and clarity to the presentation of this work.

This book is unique. It begins with a comprehensive section on principles of reconstruction which covers the types of reconstructive options that exist and how to choose which one is best for the patient, then discusses how to avoid complications in reconstructive surgery, how to deal with complications when they arise, and how to monitor the reconstructive patient. In this section, several new topics have been added including fat grafting, robotics, tissue engineering and lymphedema surgery. A special section is now dedicated to clinical anatomy of every part of the body along with detailed topics on recipient vessel selection and exposure with clear and detailed pictures and illustrations. An entire new section is dedicated to the topic of reconstruction, focusing on each area of the body and providing an algorithm for reconstruction using the flaps outlined later in the textbook. All of the topics on reconstruction are new, with leaders in the field detailing their thought process and techniques on how to deal with a defect and manage complications when they arise. Two sections of the book focus on all the important flaps that are needed to complete the reconstruction of a defect: workhorse non-perforator type flaps and workhorse perforator type flaps. Our intent while putting this book together was to provide a reference that would provide the reader with a comprehensive way of understanding the anatomy of the region where the flap is being harvested from, appreciating the anatomy of the flap itself, understanding the issues involved in reconstructing different parts of the body, appreciating and fully realizing the way to plan and execute flap harvest, tailoring a flap to fit the need of a defect, and reconstructing the defect in the way that yields the most functional and aesthetic result. In the final and totally new section, world leaders in the field of reconstructive transplantation discuss topics of how to start a reconstructive transplant program, the latest advances in research in the field of reconstructive transplantation along with techniques and outcomes of hand, face, uterus, nerve, and abdominal wall transplantation. This entire project is completed and detailed through clear and

thorough writing, beautiful and abundant illustrations and pictures, and a unique library of reconstructive surgical procedures.

We hope that this textbook and video collection will provide a core course for beginners and a reference for experienced surgeons who aim to restore aesthetically appealing form and function to their patients. Every chapter in this book has been written by world renowned surgeons who have had proven successes over the years and have generously given their time and effort to sharing their knowledge and experience with us. The reader will be exposed to the most cutting edge surgical procedures in the field. The curious surgeon who has the drive to find optimal surgical solutions to situations rendered as hopeless will benefit from the materials in this book.

With true appreciation for the contributions of our expert colleagues, and great gratitude to our families, teachers, students and colleagues, we sincerely hope that each reader from every specialty practicing reconstructive surgery will find this textbook to be useful in treating their patients and be an inspiration in providing a resource for them to continue to advance this specialty which is so intense and has a never-ending potential to help those in desperate need of care.

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