

Preface

Liposuction, the most popular of all aesthetic surgical procedures, has now come of age as a refined aesthetic tool. Technology and artistry have combined to enable the surgeon to sculpt the human form with accuracy, consistency, and safety. The advent of ultrasound-assisted liposuction (UAL) has further extended the role of liposuction in body contouring. Patients previously difficult to treat with traditional liposuction can now benefit from this new technology. This book, the first to be published on this topic, is intended as a practical and clinical guide to UAL. It takes the reader directly into the operating room to view the procedure and to witness the decision-making process that guides this process. Emphasis is placed on how to use UAL in a safe and effective manner. Our goal is not to promote UAL, but to provide helpful information to educate our colleagues about the potential for this procedure in defined patient populations. Like all surgical techniques, it has its limitations. Therefore we evaluate the indications as well as the pros and cons of UAL in an unbiased manner to determine its rightful role in body contouring surgery.

The book is divided into two distinct parts. Part I begins with an overview of this new technology and introduces the reader to the unique vocabulary associated with UAL through an illustrated glossary that graphically depicts the terms being discussed. This initial section presents basic information on physics, safety, and anesthesia and reviews the equipment, instrumentation, and training requirements for those who wish to incorporate UAL into their practices. It also traces the introduction of UAL in the United States and the unique role that the major plastic surgery professional organizations (the American Society for Aesthetic Plastic Surgery, Inc., the American Society of Plastic and Reconstructive Surgeons, the Plastic Surgery Educational Foundation, the Lipoplasty Society of North America, and the Aesthetic Surgery Education and Research Foundation) played in its evolution. These organizations formed a task force under the initial leadership of Dr. Peter Fodor and, later, Dr. Franklin DiSpaltro that brought plastic surgeons, the Food and Drug Administration, and the manufacturers together for the first time. The

goal of this task force was to guide current research studies and establish safety guidelines and uniform regional educational courses around the United States.

Part II covers the clinical applications of UAL. It begins with chapters on patient selection, basic principles, and technique and then focuses on regional treatment as well as special applications for UAL. Chapter 7 describes in depth the specific techniques, key principles, and critical technical points that are the basis for the entire book. Dr. Mary Gingrass, an innovator in this area, presents another perspective on UAL technique in Chapter 8.

Chapters 9 through 12 focus on regional treatment with UAL combined with SAL for the hips and flanks, abdomen, thighs and buttocks, and back and arms. Large-volume liposuction is specifically addressed in Chapter 13, with emphasis on safety and technique. This chapter includes the personal experiences and considerable expertise of Drs. Mark Gilliland, Bradley Calobrace, and G. Patrick Maxwell. Special applications, including the use of UAL to treat fibrous areas as well as secondary liposuction, to enhance skin contraction, and to promote more uniform fat layer contouring, are well described.

UAL complements traditional liposuction; it is not intended to replace it. As an adjunct, it enhances body contouring results, particularly for the large-volume patient, the secondary liposuction patient, and patients seeking treatment of fibrous areas such as those with gynecomastia. The role of external ultrasound in liposuction is described by Dr. Barry Silberg, who developed this technique. Complications of both traditional liposuction and UAL as well as principles and techniques for prevention are presented. Risk management in this emerging area is discussed by Dr. Neal Reisman, a physician and attorney, who identifies specific problems in patient selection and medicolegal issues associated with body contouring surgery. Finally, Dr. James Grotting demonstrates the use of the solid probe, another method that has potential for maximizing the effects of ultrasound in body contouring.

We have erred on the side of completeness at the risk of repetition of material to accommodate the reading habits of busy surgeons who frequently do not have the time to read a book from beginning to end, but read selectively. Therefore each chapter has been designed as a self-contained unit—a complete guide to the treatment of each specific region. In this way the reader can absorb all of the information pertinent to the topic at hand without referencing earlier chapters. Our desire to include the thoughts and experiences of some of our colleagues who have made significant contributions to this technology also made some repetition inevitable. Readers need to be exposed to multiple viewpoints to learn from the pioneers in a still-evolving technology

such as UAL. These are still uncharted waters, and more studies are necessary to fully explore the ramifications of many developments in the field.

Helpful pearls and pitfalls are highlighted throughout the pages to facilitate learning along with key points to summarize each chapter. We have also carefully documented the volumes infiltrated and removed and the techniques applied (UAL, SAL, or a combination) for each patient example presented to provide some parameters for others performing these techniques. We hope these will help in the decision-making process.

UAL is a valuable addition to body contouring procedures. It can provide improved care and results and ensure greater patient satisfaction. It is not a replacement for SAL nor a substitute for a healthy lifestyle; rather it is a useful adjunct with defined indications and limitations.

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