ADVANCES IN COSMETIC SURGERY

Nonsurgical Body Contouring



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KEYWORDS

Nonsurgical
Body contouring
Noninvasive
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Radiofrequency
Laser

KEY POINTS

- Nonsurgical body contouring encompasses nonsurgical skin tightening, fat reduction, and cellulite treatments.
- Women and men are increasingly seeking nonsurgical body contouring procedures because of low downtime and high safety profiles.
- Current technologies use laser, radiofrequency, ultrasound, and cryolipolysis to achieve improvements in body contour.
- Cellulite treatments are minimally invasive procedures with growing popularity and success.
- Long-term studies demonstrating the durability of changes seen in nonsurgical body contouring are currently lacking.

INTRODUCTION

In 2016, there were more than 11.6 million nonsurgical cosmetic procedures performed in the United States, which included a 12% increase from 2015 in nonsurgical skin tightening procedures [1]. Nonsurgical fat reduction procedures have also seen similar increases in popularity. Men and women are both seeking options for improving their body contour with low down-time and high safety.

Body contouring allows for the treatment of isolated areas of adiposity or correction of asymmetries [2]. Commonly thought of the domain of liposuction, nonsurgical body contouring with new devices have emerged as an alternative to surgery. Together, nonsurgical skin-tightening and fat reduction procedures address the 2 components of body contouring, namely the outer skin and inner fat. Technologies include lasers, radiofrequency (RF), ultrasound, and cryolipolysis. Minimally invasive procedures combining these technologies with traditional liposuction and other techniques for cellulite reduction also are considered a part of nonsurgical body contouring.

Nonsurgical body contouring is not a replacement for surgery in certain cases. Patients who have a severe skin excess or who are overweight are not ideal candidates for nonsurgical body contouring. Often these patients and those who experience massive weight loss require surgical procedures to achieve desired results and restoration of a more normal body contour.

SURGICAL TECHNIQUE Preoperative Planning

Patients who often desire nonsurgical body contouring are unwilling to have surgical procedures performed either because of perceived downtime with surgery, medical contraindications, cost, or other motivations. The preoperative assessment should include a

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thorough history and physical examination with a specific focus on understanding patient motivations and expectations. This helps a provider assess whether a patient's expectations for correction are commensurate with expected results from the device(s) used. Patients should be evaluated for their height and weight, and a body mass index assessment should be made. Patients should be counseled that nonsurgical body contouring procedures are not weight loss procedures and that changes in weight will likely affect expected results. As with surgery, proper diet and exercise routines can help patients maintain results. Additionally, documented stable weight can be helpful in setting expectations of results.

Patients should be asked about prior nonsurgical procedures and their experiences. This can help a provider understand a patient's past expectations and level of satisfaction with obtained results. Providers can then tailor a plan of action based on these past experiences.

An assessment of skin quality is particularly important because many devices aim to stimulate secondary wound healing in the skin to achieve results. Younger patients with a stable weight are likely to have a different response than, for example, patients with a history of massive weight loss who have thin dermis.

Specific devices have manufacturer-issued contraindications, which should be reviewed by providers prior to performing the procedure.

Sample Device-Specific Contraindications

- CoolSculpting (Allergan, Dublin, Ireland)—coldinduced conditions, cryoglobulinemia, cold urticarial, paroxysmal cold hemoglobinuria, varicose veins, dermatitis, and cutaneous lesions
- Cellfina System (Merz North America, Raleigh, North Carolina)—coagulant disorders, diabetes, obesity, recent surgery, pregnancy, skin lesions, anticoagu lation, untreated hypertension, vascular issues, and tumors
- Ultrashape (Syneron Candela, Irvine, California) pregnancy, pacemaker, implanted cardiac defibrillator, abnormal fat metabolism, liver disease, connective tissue disorders, coagulopathies, wound healing issues, open wounds, fat thickness less than 1.5 cm or greater than 3 cm, hernias, keloids, or hypertrophic scars
- RF device—thin skin, autoimmune or collagen vascular disorders, smokers, patients on anti-inflammatory agents, pacemaker, or implantable device

Photographs are critical for documentation of the baseline appearance of the area to be treated. Postprocedure photographs at different time points can help visually track changes and can be useful for discussions with patients. Standardized photographs for the areas of interest should be obtained.

Patient Evaluation Should Include

- Focus on patient motivations and expectations
- Assessment of past nonsurgical procedures and patient's satisfaction
- Documentation of body mass index and stability of weight
- Assessment of skin quality
- Review device-specific contraindications for each technology type
- Preprocedure photography with standardized views

Preparation and Patient Positioning

Most nonsurgical body contouring treatments do not require a general anesthetic. Treatments like RFassisted liposuction (RFAL) or certain cellulite treatments involve the use of tumescent solution that often contain local anesthetic.

Depending on the body site, the area should be cleaned thoroughly. If there is an invasive component to the treatment like RFAL or cellulite treatments, the area should be prepped and sterile techniques should be followed. Treatments that are purely external should adhere to clean technique.

Patients should be positioned such that they are comfortable during the period of treatment. If a patient is laying supine, adequate padding of pressure points and pillows below the knees can be helpful. Prone positioning patients also need to be padded appropriately.

Procedural Approach

In general, markings and photography are a critical part of body contouring and allow the provider to confirm with the patient the specific areas to be targeted with therapy. Each technology type has unique steps specific to the devices used. Representative procedural approaches have been provided. Download English Version:

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