

Lessons

for secondary liposuction

Understanding of wounding process, keen aesthetic 'eye' both crucial for revision success

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High-tech tools and surgical techniques cannot replace the years of experience required to achieve good aesthetic outcomes in liposuction procedures. Knowing how to optimally wound the tissue when performing liposuction and understanding how tissues heal when performing either primary or secondary liposuction are instrumental in achieving the best aesthetic results possible.

Liposuction procedures have become one of the cornerstones of cosmetic surgery, but often, the cosmetic results achieved may fall short of the patient's and the surgeon's expectations.



Dr. Sadick

"Revision liposuction procedures are more challenging than primary liposuction procedures because they require a more aesthetic eye in terms of perfecting contour irregularities not achieved in the primary surgery," says Neil S. Sadick, M.D., F.A.C.P., department of dermatology, Cornell University Medical College, New York. "Often, patients already have some degree of indurations from previous procedures, requiring more of an aesthetic finesse during the revision liposuction procedure."

REASONS FOR REVISION According to Dr. Sadick, the most common reason why patients ask for a revision liposuction is because the previous surgeon removed either too much or too little fat. If too much fat was removed, lipotransfer techniques can be used to supplement the remaining fat and in turn shape the targeted areas more symmetrically.



Dr. McMenemy

Revision liposuction can also be geared toward improving uneven contours resulting from the primary procedure, says Patrick McMenemy, M.D., a Sacramento, Calif., cosmetic surgeon. These irregularities may be the result of an uneven wounding process during the primary procedure, which can result in skin-texture changes and excess deposits of fat.

Excess deposits of fat can result if the liposuction is performed unevenly under the skin. If the surgeon removes fat in an uneven manner, a less-than-smooth contouring may result.

"One of the premises of revision liposuction surgery is the creation of an extremely uniform wound," Dr. McMenemy says. "Surgeons should not

only try to create the most uniform wound possible in respect to the contour they are trying to make, but also perform the wounding such that the tissue heals in a very particular way, as this will more likely result in more uniform and predictable contouring outcomes."

When performing liposuction procedures, surgeons must bring years of experience to the table in order to optimally sculpt the fat. Additionally, they must understand how to address the subcutaneous compartments when disrupting the connections between the deeper tissue and the overlying skin.

"Different degrees of sun-damaged skin and the age of the patient can impact the ability of the skin to contract down. Therefore, the surgeon not only has to be able to aesthetically sculpt the contour of the body when removing the fat in choice areas, but also pay extreme attention to the skin and how it retracts following the procedure," Dr. McMenemy says.

The creation of an extremely uniform wound and control over the healing process both set the stage for consistent postoperative liposuction results. In any liposuction procedure, the surgeon must take care not to alter or traumatize



A 51-year-old female patient before (left, middle) and six weeks after a third revision liposuction surgery of the knees. Tumescence, detailed rasping and scar disruption with Blugerman were followed by liposculpture. Total aspirate was 280cc/180cc supranatant fat. (All photos credit: Patrick McMenemy, M.D.)



A 51-year-old female patient before (left, middle) and 14 weeks after a fourth revision liposuction surgery of the calves. After tumescent anesthesia, detailed rasping and scar disruption with Blugerman, liposculpture was done using a 3 mm spiral cannula. Total aspirate was 100 cc/50 cc supranatant fat.



Total of 18 grids topographically marked for laser therapy. After quadrant marking of the skin for laser treatment, skin tightening was achieved with a 1,319 nm wavelength (12 W) laser (Sciton Joule) approximately 5 mm beneath the skin surface (approximately 1,269 J/grid, 39-41°C externally; 5-7°C higher internally), fine-tuning Blugerman rasping and compression. The patient was ambulatory upon discharge.

According to Dr. McMenemy, an accurate assessment of the skin, the integument, the location of the fat, the patient's age and the ability of the skin to contract all play a crucial role in achieving optimal aesthetic results.

the subdermal vascular plexus supplying the overlying skin. Sculpting too close to the skin's surface may result in uneven contours and may change skin texture, and blood flow patterns and may cause skin loss. Leaving a uniform layer of fat beneath the skin exactly the same thickness in the area that one is sculpting is instrumental in creating a uniform wound, which will more likely result in even and smooth contour outlines.

LIPOSUCTION OPTIONS Surgical tools such as the Blugerman RASP (also called the Mangubat) and other designated tissue disruptors and innovative liposuction techniques (laser liposuction, ultrasound-assisted liposuction — UAL — and power-assisted liposuction — PAL) can facilitate liposuction procedures and help the surgeon better sculpt the target area.

"In primary liposuction procedures, I will often use the laser-assisted liposuction technique in most of my patients. However, for revision

liposuction and touch-ups, I will often opt for traditional liposuction or power-assisted liposuction techniques, using smaller cannulas," Dr. Sadick says. "The smaller cannulas are paramount for secondary liposuction procedures because usually more finessing and fine-tuning is required, and these can significantly facilitate in achieving these goals."

Laser-assisted liposuction can have the advantage of creating a slightly gentler wounding process compared to mechanical disruption of the tissues, and it can be useful in helping the surgeon more optimally break up scar tissue following a primary liposuction procedure.

CHALLENGING AREAS Typically, the more challenging areas of revision liposuction include the contouring of the inner thighs, triceps, periaxillary area and buttocks. Because the love-handle area is sometimes very fibrous, it can be difficult to produce a totally symmetrical silhouette.

"The challenge here may be due to the variability and irregularity in the re-draping of the skin in these areas. Also, you have the buttock component that plays a gravitational role, which again makes this area challenging," Dr. Sadick says.

When addressing more challenging revision liposuction areas, and particularly for more inexperienced surgeons, Dr. McMenemy says the superficial fat layer should be left as uniformly intact as possible. As one becomes more experienced, this layer can be sculpted progressively thinner while keeping the resultant tissue-healing process and expected wound contracture in mind.

"Inflicting a controlled trauma to the tissues using a given revision liposuction technique, as well as applying the right amount of compression following the procedure will result in a better-controlled healing process and scar-tissue formation in the targeted tissues, one which is crucial in achieving superior cosmetic goals," Dr. McMenemy says.

In order to help avoid liposuction irregularities, Dr. Sadick says he often stands patient up at the end of the procedure to reassess the aesthetic outcome achieved. This approach allows for any contour irregularities or possible improvements to be addressed while the patient is still in the operating room. ♦

Disclosures: Dr. McMenemy is a consultant for Sciton and receives honoraria for speaking engagements. Dr. Sadick reports no relevant financial interests.