Contouring Concepts

by Mokhtar Asaadi, MD, FACS

Microliposuction removes localized fat pockets with minimal downtime and risk

Miniskirts, cropped shirts, low cut pants are just a few of today's fashion trends. Preteens, adolescents, and women are all molded by society in their way of what to wear and how to wear it. No matter what the fashion and media dictates, not everyone has the perfect body to accommodate these trends. Good diet habits and exercise may be helpful, but localized fat pockets cannot disappear with them. Microliposuction can permanently remove this localized fat with minimal downtime, discomfort, and risk.

Microlipoextraction and microliposuction refers to a small amount of fat extraction by liposuction in the range of 20cc to 110cc. I consider microliposuction when the lipoextraction is in the range of 200cc to 300cc, which has essentially about 15cc to 200cc of pure fat.

Evaluating Microliposuction

Patient Selection. An ideal candidate for microliposuction has localized fat and good skin elasticity and tone. The vest areas to have this procedure preformed include: 1) young person with a full and round face. (The face is unforgiving and special expertise and caution is required. I do not recommend liposuction of the face in the elderly patient with poor skin elasticity); 2) neck; 3) fullness (hump) of the upper back; 4) anterior and posterior auxiliary fullness; 5) lower abdomen and flanks ; 6) medial and lateral thighs; 7) knee region; 8) arms and elbows.

Consultation. Like any other plastic surgical procedure, usually two preoperative consultations are required. The initial consultation involves a medical history, physical examination, and a detailed discussion of the surgical procedure, including potential risks and complications and alternative methods. It also involves taking photographs of the patient with different views.

During the second consultation, the procedure is discussed further and all questions are answered. Postoperative instructions and garments are given to the patient, who signs witnessed consents. One important point in the preoperative consultation is to have the patients understanding that a secondary procedure might be needed. There is 5% to 10% chance of the patient requiring a secondary or touch-up procedure. This is discussed at length with the patient, who is also advised that there may be an additional, minimal surgical charge. However, the facility and anesthesia charges are the sole responsibility of the patient.

Surgical Procedure. The procedure is a same day surgery performed in an outpatient facility under a local anesthesia with or without intravenous (IV) sedation. General anesthesia is usually not required for this type of surgery. Preoperative markings are done in the standing position with the blue and red permanent makers. Blue markers indicate the area to be suctioned with an "X" mark at the most prominent area of the fatty deposit. The red marker is used as the reference points and lines and to mark the areas that suction should be avoided. Preoperative photos are used in the operating room.

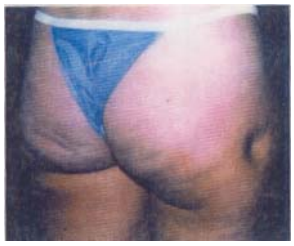
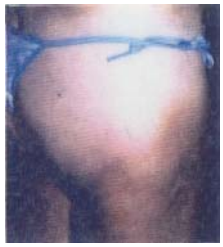


Figure 1. Preoperative: 35-year-old female



Five years postoperative: Fat grafting of 80ml to correct deep traumatic depression deformity of the lateral thigh after a motor vehicle accident. Microliposuction to the surrounding area was also performed

The patient is prepped with a betadine solution in a sterile fashion. Draping is done to have circumferential access to the parts to be suctioned. The patient is monitored with electrocardiogram and pulse oximeter. There is no need for pulsatile antiembolic stockings because of the short duration of the procedure. IV lines are kept open with the IV solution and IV antibiotics are given to the patient postoperatively.

Local anesthia is given with 1% xylocaine and 1/1000 epinephrine solution by the use of a 30-guage needle. Wetting solution consists of 1,000cc of Ringer's lactate with 20cc of 1% plain xylocaine and 1 mg of 1/1000 epinephrine solution through the 1- or 2-mm incision. Wetting solution is injected either with a syringe or a pump. After 10to 20 minutes of waiting for the maximum effect of the epinephrine, pretunneling is performed with 2- to 3-mm cannulas. Suctioning is performed either with the blunt cannula about 2- to 2 ½-mm in size and suction pump, or by the use of 10- to 50-cc syringes connected to 1- to 2-mm blunt cannulas with one or two holes at the end. Sometimes multiple access sites are used to achieve better contouring of the area.

To and fro motion of the cannula is used. The lateral movement of the cannulas' "windshield wiper" movement is avoided to keep all the fibers, blood vessels, and nerves intact and help redrape the skin in the postoperative period.

The negative pressure created within the syringe (by pulling its plunger) is sufficient to aspirate the fat in most areas. A pinch test, or using the flat palm of the non-dominant hand over the suctioned area, is helpful for assessing the amount of fat removed. Most of the time, the color of the fat is yellow. A few important points: What is left behind sometimes is more important than what is aspirated. Also, like the surgical technique, the main factor is proximal to the cannula, meaning the physician, rather than the instrument, is used. Always keep in mind that the conservative approach to any liposuction procedure will prevent complications, such as too much fat removal, which could cause irregularity and depression deformities.

In the macroliposuction, a spot liposuction is not recommended. However, for patients with localized fatty deposits undergoing microliposuction, spot liposuction can yield excellent results. Lipoextract can be used for fat grafting such as the patient in Figure 1 who had fat grafting done for a deep depression deformity of the lateral thigh. The follow-up image, done 15 years later, shows complete correction of the deformity.

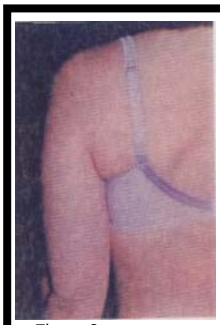
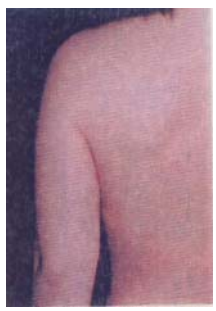


Figure 3. Preoperative: 30-year-old female.



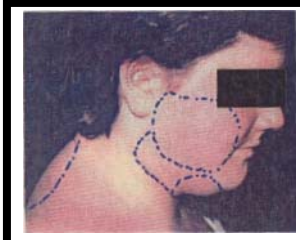
Ten months postoperative: Micro- liposuction of the arms and posterior axillary area after lipoextraction of 300ml

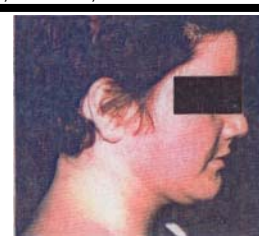
Fluids are squeezed through the access incision and a skin closure is done with a 6/0 black nylon suture. No drains are used. A pressure dressing or garment is applied. The patient can remove the dressing the next day and wash the garment, take a shower, and wear the garment for the next 7 to 10 days.

Postoperative Care An antibiotic and a mild pain medication are given postoperatively. Minimal bruising and discomfort is expected. The patient can return to work the next day. No pressure or massaging the suctioned is done. However, if the patient develops nodules, hardness, of rippling, massaging the area a few times a day, starting 2 to 3 weeks after the initial procedure is recommended. Secondary procedures are done at least 6 months, or ideally 1 year, after the initial procedure (if needed).

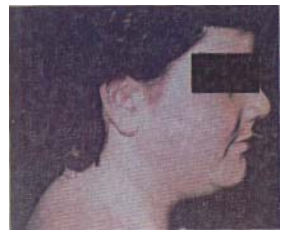
Avoiding Risks and Complications

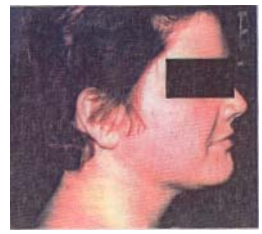
The potential risks and complications of microliposuction, like any other surgical procedure, include bleeding, infection, pain, and scarring. However, microlipsuction has minimal chance of the above complications. The average postoperative findings are mild discomfort and minimal bruising and hypostheshia. In my experience of more than a few thousand liposuction cases since 1982, only two young patients developed low oxygen saturation in the immediate postoperative period. Both patients were asymptomatic, but had rales at the base of both lungs and chest x-rays showed a pattern of pulmonary edema. Both patients responded with steroids, IV fluids, and diuretics.





Fiqure 2. Preoperative: 19-year-old female.





Three months postoperative: Microliposuction of the face and neck (lipoaspirate of 200ml), and a hump of the upper back (lipoaspirate of 300ml).

They were kept in the hospital overnight and discharged the following day with complete recovery.

In the past 21 years, I have never seen a case of bleeding, wound infection, skin slough, or significant irregularity in any of my liposuction cases. In microliposuction, none of the above complications eas noted and most of the time, the patient is back to regular activities the following day.

Because of the increased demands to be fit and look good, microliposuction with a minimal amount of morbidity and rapid recovery, is an ideal procedure for young individuals with localized lipodystrophy. As far as the cost is concerned, microliposuction, because of the shorter duration of the operative procedure, is much less costly than regular liposuction, and since most of the surgical procedures are done in a matter of 1 hour, the cost usually is about 20% of the cost of macroliposuction.

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