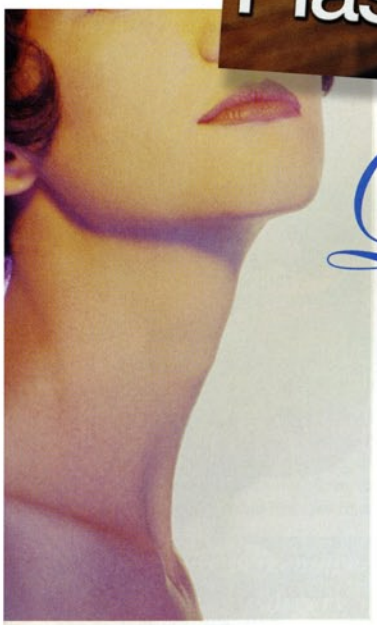
PlasticSurgeryProducts®
AUGUST 2005
THE MAGAZINE FOR PLASTIC SURGERY PROFESSIONALS



Liposuction or Lift?

by George John Bitar, MD

An algorithm for neck rejuvenation

I want to look better, but I don't want a full facelift." A plastic surgeon hears this very frequently from a patient. What can a plastic surgeon offer a patient who wants to look younger with a nice facial rejuvenation but does not want a full facelift? It is essential to explain to the patient what a neck lift will and will not accomplish.

No one procedure is perfect for every patient. Prominent plastic surgeons have created simple and complex neck-management algorithms. For the sake of simplicity, I will divide my neck-management algorithm into three categories and address the ancillary procedures:

- liposuction only;
- liposuction and neck lift with suture suspension; and
- liposuction and extended neck lift with suture suspension.

Evaluating the Neck

The patient is initially evaluated in terms of his or her mental, psychological, and medical condition. An adequate history should be taken that includes medications the patient is taking that can increase risk of bleeding in the neck, allergies, and previous neck and facial surgeries. Patients should be asked to stop smoking for at least 2 weeks prior to surgery and 2 weeks afterward. Smokers have a higher incidence of wound dehiscence and should be cautioned repeatedly. A medical clearance from each patient prior to surgery is important.

Once a patient is deemed a good surgical candidate, his or her neck is examined to determine which procedure to recommend. The box on page 26 provides evaluation criteria.

An important question that a patient can ask during the consultation is, "If I do my neck now, can I do my upper face later?" The answer should be to give the patient the option to have the neck lift done first and the facelift done later, if the neck will not need to be redone, or to do the whole facelift in one operation. On the whole, aesthetic plastic surgery patients are intelligent, educated people, and they should have the appropriate information to choose the surgery that suits them, not the surgeon.

Neck Management

The recommendation for neck rejuvenation should follow a systematic approach. The initial decision point is whether to liposuction or not. If the neck needs to be suctioned, then the question becomes whether liposuction alone is sufficient. If there is skin laxity, liposuction is combined with a neck lift. The extent of the neck lift, and thus the length of the incision, is determined by the platysma and skin laxity.

Liposuction only is for the fairly straightforward neck. It is usually performed on people in their 20s or 30s who have excess fat in their necks but good skin elasticity. They should have no weight fluctuation or excess weight that renders the neck skin lax or the contour ill-defined. The platysma muscle should have good tone with little noticeable banding.

After the patient is anesthetized and intubated, the neck is infiltrated with tumescent solution. After the solution takes effect, liposuction of the neck is performed with two small incisions in the postauricular region. The postauricular incisions are completely hidden behind the ear, which patients appreciate (see Figure 1).

It is judicious to err on the side of conservative rather than aggressive liposuction, because a completely defatted neck can result in skin irregularity and an unattractive skeleton-like appearance. Care should also be exercised to avoid injuring the marginal mandibular nerve with aggressive liposuction. The choice of suction-assisted lipectomy, power-assisted liposuction, or ultrasound-assisted liposuction is up to the surgeon; I obtain excellent control and results with suction-assisted lipectomy with 3- and 4-mm spatulated cannulae. See Figure 2, page 26 for the results of the liposuction-only procedure.

Liposuction and neck lift with suture suspension are indicated, in general, for a man or woman who has a poorly defined cervicomental angle and submandibular border. This is one of the most common findings as the neck ages. A poor definition of the submandibular border is evident from a side view of the face if the cheek blends into the side of the neck.

I choose the suture-suspension neck lift technique with a fibrinogen sealant, as has been previously described.[1] The suspension sutures result in a superior and internal vector force that creates the new cervicomental angle and defines the submandibular border. The inherent properties of soft-tissue contraction allow the overlying skin to adapt to the new muscle positions. Finally, removing superficial fat via liposuction enhances the jaw and neck contours and is the initiating force for soft-tissue contraction. Healing is expedited by the fibrin sealant.

Figure 1: Patients like the obscurity of the postauricular scar.

Before & After

Figure 2: A 42-year-old woman before and 1 year after liposuction.

The patient is marked in the holding area in the supine position. A line is drawn along the midline, the mandibular contour is marked, and a parallel line 1.5 cm inferior to the mandibular border is drawn to create the subcutaneous tunnel. The submental curvilinear incision line and the inferior border of the dissection are then marked. Finally, the postauricular ellipse where the skin will be incised is marked. The extent of the ellipse, which is similar to the lower border of dissection, depends on the skin laxity in the lateral neck.

The patient is anesthetized and intubated. If liposuction is required, it is done first, as described in the previous section.

Next, a curvilinear submental incision is made and the skin immediately overlying the platysma and its midline is elevated with facelift scissors. The area of the submandibular tunnel is suctioned along its dermal surface with the 4-mm cannula facing the dermal surface. This is to encourage skin contraction in this area.

The platysmal border at the midline is then usually resected in a triangular fashion, and the platysmal borders are cauterized. If necessary, prominent platysmal bands can be transected for approximately 2–3 cm on each side of the platysmal border. Following this maneuver, the midline of the platysma is sutured with buried mattress 3-0 polypropylene sutures, to approximate and, in effect, to shorten the width of the platysma.

At the depth desired for creating the new cervicomental angle, a 3-0 polypropylene suture is placed in horizontal mattress fashion from right to left, including along both borders of the platysma. Then, a suture is placed from left to right in a vertical mattress style, interlocking with the first suture. The ends of both sutures are taken out through the submental incision, and the sutures are clamped separately with a hemostat.

The area behind the postauricular sulcus on each side is incised. A small ellipse of skin is removed from this area to allow better access to the underlying mastoid fascia and removal of the slight redundancy in the skin at the mandibular angle area. The skin is then undermined to connect to the previously formed tunnel. A long curved hemostat is placed at the postauricular sulcus and exits through the tunnel at the submental incision. The left suture is grasped in the instrument and taken through the submandibular tunnel. A horizontal mattress suture is passed deep into the mastoid fascia. The suture is then tied just enough so that the platysma is tucked up underneath the mandibular border.

The skin contracts with a sudden definition, appearing below the submandibular border. As the muscle pulls underneath, the remaining skin attached to the platysma is imbricated underneath the mandibular border. The contralateral side is sutured and tied similarly.

Ten Points to Consider When Evaluating a Neck

1) The facial and neck bony structure: Are the mandibular border and angle prominent, or does the cheek "melt" into the neck? Is the jaw wide?
2) The amount and distribution of fat: Superficial fat and subplatysmal fat may sometimes be difficult to distinguish. Does the neck need to be liposuctioned, or is it too skinny?
3) The platysmal configuration and the severity of platysmal banding: Do the platysmal bands need to be plicated? Does the platysma need to be partially excised?
4) Cervicomental angle depth: Is the angle obtuse, and does it need to be made more acute for a more youthful look by a suture-suspension platysmaplasty or another technique?
5) Labiomandibular fold prominence: Is the jowling severe enough that the patient needs a facelift rather than a neck lift? It is important to pinch the jowls and, if necessary, tell the patient that this area will not be improved with a neck lift. This point cannot be overemphasized. Patients may think that they will get all the benefits of a facelift with a neck lift, but with "less surgery." That is not true, especially if the patient has significant jowling.
6) Mental prominence: Does the patient need a chin augmentation or reduction? Or is the chin normal?
7) Neck width: Does it need to be narrowed a little by platysmal plication?
8) Midface evaluation: Minimal laxity to midface structures is important if we want to have a happy neck-lift patient. At the initial consultation, it should be made clear to the patient that a neck lift is not the procedure of choice to improve the jowls or the nasolabial folds. A facelift, however, is a better choice.
9) Does the patient need a full facelift? For certain patients, a neck lift is not appropriate and a full facelift is the procedure of choice. The appropriate way to handle this type of patient is to be firm about the fact that a full facelift will be necessary if he or she would like reasonable improvement. If other reasons prompt the patient to have a neck lift instead, such as health issues or financial considerations, then you should emphasize that the neck lift's results will be suboptimal.
10) Prominent submandibular gland: Does the submandibular gland need to be addressed? Will it become more apparent after the neck lift defines the neck anatomy better? I choose to do one or two suture suspensions through the existing incisions, that is, a "hammock"-like suture plication to tuck the submandibular gland more cephalad.

Before & After

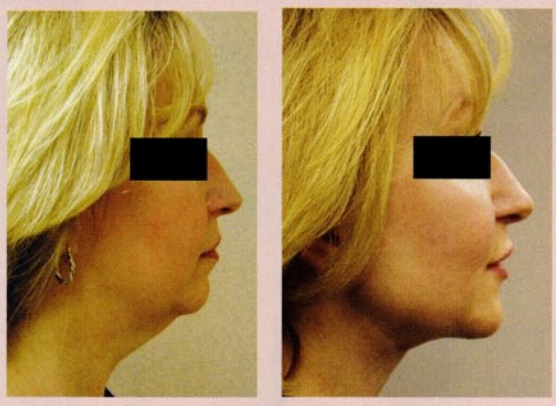


Figure 3: A 51-year-old woman before and 6 months after liposuction and a suture-suspension neck lift.

To improve the recovery phase of the suture-suspension technique and obviate the need for drains, a fibrin tissue sealant is applied. Next, the postauricular incisions and submental incisions are closed. Finally, the dressings are placed and the patient is awakened. See Figure 3 for the results of the liposuction plus neck lift procedure.

Liposuction and extended neck lift with suture suspension is recommended for two types of patients: older patients who would benefit more from a full facelift and want a neck lift instead, or massive weight loss (MWL) patients who have severe laxity of the soft tissues in the neck. The actual technical approach for both types of patients is similar despite the differing etiology of these conditions.

As gastric bypass surgery becomes more popular and operating on MWL patients becomes mainstream plastic surgery, we will be operating on many more patients who want to have neck lifts along with other body-contouring procedures. Deciding when to do the neck lift should be part of the overall body-contouring plan for these patients.

During preparation of the neck-management treatment plan for the MWL patient that has severe soft-tissue laxity, as well as for the older patient, the patient should be given the option of a full facelift. The patient must be told that, because of the limitations of the neck lift, there is a higher probability of dissatisfaction (and of revision surgery) due to incomplete correction of skin laxity despite aggressive skin excision. Lack of communication can ultimately result in a dissatisfied patient.

The technique is similar to the one discussed previously, with the exception of a longer incision, anteriorly extending to the tragus (a mini-facelift incision), to excise more skin. See Figure 4 for the results of the liposuction plus extended neck lift procedure.

One consideration with gastric-bypass patients is that they have small stomachs, and so they are more likely to be nauseous and vomit when anesthesia is administered and to retch after surgery. This is an important factor to remember because these patients may have a higher propensity toward immediate postoperative hematomas as well as late hematomas in the 10–14-day postoperative period, when the fibrin sealant has dissolved and the body is depositing its own fibrin. In my experience, one patient had a hematoma at 10 days post-op, which I attributed to projectile vomiting and the weakness of the fibrin glue available at that time.

If a revision must be done on these patients, it will typically include going through the existing incision and elevating the skin. Liposuction is performed if necessary. Usually, excising the excess skin without the need for muscle plication is all that is necessary. Fibrin sealant can be placed, and the surgery can proceed as previously described with the primary neck lift.

Postoperative Care

Postoperative care is minimal. The dressings are removed after 48 hours, with minimal ecchymosis and edema. Male patients are advised not to shave for 7–10 days after surgery to avoid trauma to the neck flaps. Patients are instructed to resume the activities of daily living in 2–3 days and strenuous activities, including exercise, in 3–4 weeks.

Complications

I have not seen any complications with patients who had only neck liposuction. Although neck lifts are less time-consuming, less complex, and less risky operations than full facelifts, they have had about a 4% complication rate among patients in my practice. The most common complication has been revision surgery due to redundant skin, mostly in extended neck lifts on MWL patients; this is usually performed 1 year after the initial operation.

The second most frequent complication has been the formation of immediate or perioperative hematomas that needed to be evacuated. I have also encountered the formation of seroma that required aspiration. My patients have not had any significant skin necrosis because of the conservative amont of skin excision I perform and their acceptance of the possibility of future revision.

Neck rejuvenation can be a difficult area to address, but it is one of the most commonly performed procedures in my practice. I have seen many patients who did not want a full facelift breathe a sigh of relief that their concern—only their neck—has been addressed, and that procedure was all it took to make them happy! ■

Before & After

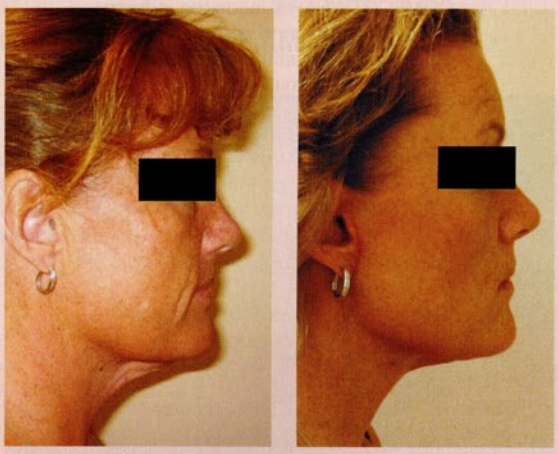


Figure 4: A 44-year-old woman before and 1 year after liposuction and extended suture-suspension neck lift. The patient had gastric bypass surgery that left her with severe neck soft-tissue laxity.

George John Bitar, MD, is a board-certified plastic surgeon who is on the staff at INOVA Fairfax Hospital and Prince William Hospital in Manassas, Va. He was named a 2005 top doctor in the Washington, DC, area by Washingtonian *magazine. He can be reached at (703) 206-0506, gbitar007@aol.com, or www.drbitar.com.*

Reference

1. Giampapa VC, Bitar GJ. Use of fibrin sealant in neck contouring. *Aesthetic Surg J*. 2002;2:519–525.