# EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT LIPOSUCTION BUT WERE AFRAID TO ASK)

by SAM M. SUKKAR, MD, FACS

he concept of liposuction is surprisingly simple. Liposuction is a surgical technique that improves the body's contour by removing excess fat deposits located between the skin and muscle. Liposuction involves the use of a small stainless steel tube, called a cannula (from the Latin word for reed, tube, cane). The liposuction cannula, typically connected to a powerful suction pump, is inserted into the fat through small incisions in the skin, and fat is removed by suction as the cannula creates tiny tunnels through the fat. During the healing process after liposuction, these tiny tunnels shrink and disappear, resulting in an improved body contour.

The results of liposuction have stood the test of time. Most of the new techniques such as laser liposuction and mesotherapy (FIG.com) have not been properly studied and may not work well if at all. Only time will tell.

In my practice, I utilize a technique called **tumescent liposuc**tion which can be performed using local anesthesia. For more on this fascinating technique, you can go to DrSukkar.com and watch a video of the procedure on one of our patients.

# What is the tumescent technique?

The tumescent technique for local anesthesia involves the injection of large volumes of very dilute lidocaine (local anesthetic) and epinephrine (drug that shrinks capillaries) into subcutaneous fat. With the tumescent technique, the volume of dilute lidocaine that is injected into fat is so large that the targeted areas literally become tumescent (swollen and firm). The tumescent technique produces profound and long-lasting local anesthesia of the skin and subcutaneous fat. Tumescent liposuction designates a form of liposuction that uses tumescent local anesthesia.

# What is tumescent liposuction?

In the tumescent technique for liposuction, a large volume of very dilute solution of local anesthesia (lidocaine and epinephrine) is infiltrated (injected) into the fat beneath the skin, causing the targeted area to become tumescent, in other words, swollen and firm.

### What are the benefits of tumescent liposuction?

Local anesthesia used in the tumescent technique for liposuction is so effective that patients no longer need intravenous sedatives, narcotic analgesics, or general anesthesia. As a result of the widespread capillary constriction caused by the epinephrine in the anesthetic solution, there is minimal bleeding during and after surgery. This is a major improvement in the liposuction technique compared to the older methods that simply use general anesthesia.

#### How much blood is lost during tumescent liposuction?

The tumescent technique is so effective at minimizing blood loss that the majority of patients lose approximately 15 to 30 ml (1 to 2 tablespoons) of blood during large volume liposuction. This is the same volume of blood that is taken for routine pre-operative laboratory studies.

#### How does the tumescent technique reduce bruising after liposuction?

There is dramatically less bruising with tumescent liposuction totally by local anesthesia compared to other liposuction techniques under general anesthesia. There are two reasons for this significant decrease in bruising. First, because there is so little blood loss with the tumescent technique, there is almost no blood that remains beneath the skin to cause bruising after surgery. The second reason for decreased bruising is that with the tumescent technique there is a considerable amount of post-operative drainage of the blood tinged anesthetic solution. The incisions are so small (about 1.5 mm), the incisions do not require stitches. By allowing these wounds to remain open for two to three days after the surgery, most of the residual blood-tinged anesthetic solution drains out. This minimizes bruising and swelling and accelerates the rate of healing.

#### Have there been any deaths related to tumescent liposuction totally by local anesthesia?

No. There have been no reported deaths associated with tumescent liposuction totally by local anesthesia. Virtually all deaths associated with liposuction have been associated with 1) multiple unrelated surgical procedures performed on the same day (facelift, breast augmentation, hysterectomy, etc), 2) excessive amounts of liposuction or an excessive number of body areas treated by liposuction on a single day, 3) the use of general anesthesia or heavy IV sedation with narcotics. Liposuction is an extremely safe procedure provided the patient is not exposed to excessive surgical trauma, excessive narcotic analgesics, or prolonged use of general anesthesia.

#### Why is tumescent liposuction totally by local anesthesia typically less painful than liposuction under general anesthesia? Pain associated with liposuction can occur at three differ-

ent stages: during the infiltration of the tumescent solution, during liposuction, and postoperatively. If the surgeon or nurse who does the tumescent infiltration has had special training in the techniques, then the patient typically has very little pain during the process of injecting the local anesthetic. The technique for infiltrating the solution of tumescent anesthesia requires special skill and training. Without this special training, surgeons must rely on general anesthesia. After the tumescent local anesthesia has been thoroughly infiltrated into the fat, the subsequent liposuction should be painless. The postoperative pain after liposuction is much worse for liposuction under general anesthesia compared to liposuction totally by local anesthesia. After tumescent liposuction, the local anesthesia persists for many hours after surgery and patients need only take Tylenol for discomfort. In contrast, with general anesthesia, patients typically require narcotic analgesics to control post operative pain. Finally, general anesthesia, and the use of intravenous sedatives and narcotics are associated with high incidence of nausea, vomiting and postoperative chills. Such symptoms are quite unusual with local anesthesia.

#### Why wouldn't everyone performing liposuction use the tumescent Liposculpture technique?

Liposculpture is an advanced form of liposuction and the two terms are often used interchangeably. Liposculpture is the sculpting of the body's contours by the removal of unwanted fat through suction by using small microcannulas. Most surgeons performing liposuction are trained

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to do the procedure under general anesthesia which allows for faster extraction of fat using large cannulas. Many simply don't know that the tumescent technique using microcannulas allows for a safer and more aesthetic outcome as a result of the patient being awake and cooperative.

# LIPOSCULPTURE VS. TRADITIONAL BY DR. SUKKAR VS. LIPOSUCTION

Anesthesia	Local numbing. No IV re- quired. Patient is awake and alert.	General anesthesia or heavy IV sedation. Patient is uncon- scious.
Pain	Virtually painless procedure and mild recovery discomfort treated with ibuprofen or Tylenol.	Marked post-procedure pain requires the prolonged use of prescription pain medication.
Recovery	Easy recovery. Most patients are able to return to normal activities immediately.	Patients are often unable to return to activities for several weeks.
Scars	No unsightly scars. Most pa- tients cannot identify any scars 12 months post procedure.	Scars from incision sites can vary from small to several inches in length and are per- manent.
Bruising	Mild to no bruising. Over half of all patients experience no bruising at all.	Moderate to severe bruising due to the use of larger instru- ments and jabbing movements.
Return to Work	Return to normal, non-strenu- ous work the same or next day.	Often unable to return to work for one to four weeks.
Blood Loss	No significant blood loss. More blood is lost in a routine blood test than in this proce- dure.	Significant tissue trauma and blood loss requiring transfu- sions are possible.
Risk	Extremely low rate of compli- cations documented in medical literature. Dr. Sukkar has not had a patient experience serious complication from liposculpture.	Significant complications are possible, including anesthesia reactions, organ puncture, infection, blood clots, severe hematomas, and contour ir- regularities.
Outcome	Smooth results, with most patients seeing increased skin retraction and tighter tone.	Larger instrument sizes lead to higher risk of contour and skin irregularities.
Compression Garment	Worn for only one week.	Worn for four to eight weeks.
Procedure Location	In our office surgical suite.	In hospitals or surgical suites.
Cost	Usually less than traditional liposuction.	Usually much higher due to anesthesia and facilities charges.

See video of Dr. Sukkar performing advanced tumescent liposculpture on DrSukkar.com and YouTube!



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