



Before (left) and after liposuction procedure.



Before and after: A 16-year-old male underwent combined liposuction and tummy tuck with removal of seven liters of fat aspirate.

Photos: Mohan Thomas, M.D., D.D.S.



Before and after: A 33-year-old male underwent liposuction of the abdomen and chest after weight loss resulted in sagging skin.

Photos: Mohan Thomas, M.D., D.D.S.

Liposuction

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those weighing up to twice their ideal body weight. Health status is also important in choosing appropriate candidates.

"Prior to undertaking the procedure, patients need to have a complete history and physical exam, because only persons who are generally healthy with no medical problems or who have certain chronic disorders, such as hypertension, diabetes or hyperthyroidism, that are well-controlled on medication are candidates," Dr. Thomas says.

"A good sculpting effect can be achieved by removing large volumes of fat from a few specific sites, such as the love handles, buttocks and saddlebags, and that is safer than attempting to remove smaller volumes from a large number of areas."

— Mohan Thomas, M.D., D.D.S.
Mumbai, India

Large volume liposuction is always performed using tumescent technique under general anesthesia with the assistance of a competent anesthesiologist, and as an inpatient procedure that includes a postoperative overnight stay. Proper fluid replacement is another key safety measure for avoiding pulmonary edema or complications involving fluid and electrolyte imbalance. With the goal being for output (aspirate + urine output) to equal input (infiltration + IV fluids), the volume of tumescent anesthesia to be delivered is calculated as slightly greater than the estimated amount of lipoaspirate that will be removed. In addition, fluid balance is carefully monitored during the procedure.

Dr. Thomas uses lidocaine in the tumescent anesthesia solution. To guard against lidocaine toxicity, he calculates the maximum dose the

patient should receive as 50 mg/kg body weight, and divides the dose equally among the number of liter bags of tumescent anesthesia solution.

"Lidocaine toxicity is a very real issue, and to avoid any mistakes in preparing the tumescent solution, there should be a signed written order for the lidocaine dose, and the solution should be mixed on the day of surgery with a medically qualified onlooker to double-check that everything is correct," Dr. Thomas says.

Fat removal

In determining from where and how much fat is to be removed, Dr. Thomas says it is best to take larger amounts of fat from a smaller number of anatomic areas (three or four) than to attempt to remove lesser volumes from many more sites. That is because the liposuctioned area is analogous to an internal burn, and, likewise, risks increase with increasing surface area of involvement.

"A good sculpting effect can be achieved by removing large volumes of fat from a few specific sites, such as the love handles, buttocks and saddlebags, and that is safer than attempting to remove smaller volumes from a large number of areas," he explains.

The procedure begins with patients lying in a face-down position, and once liposuction is completed from the posterior approach, the patient is flipped over into a supine position. Since the procedure on the back takes about two hours, there is a good interval of time between infiltration of the tumescent anesthesia for the first and second parts of the procedure. That delay improves the safety net for avoiding risks associated with fluid volume and lidocaine toxicity, Dr. Thomas says.

When the liposuction is completed, dependent fluid that may have accumulated in the sacral area is removed with a cannula inserted through an anterior approach, and compression garments are applied to minimize fluid sequestration into the tissues.

After assuring all monitoring parameters are normal, patients are discharged to the recovery room and can usually be sent back to their hospital rooms after 30 minutes. Relevant monitoring is continued until discharge. **CST**