Latest liposuction trend

Radiofrequency-assisted device takes one-stage approach to body contouring, providing faster recoveries and noticeable results

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Quick Read

Radiofrequency-assisted liposuction is a one-stage thermal-assisted lipoplasty technique. The use of radiofrequency to liquify and coagulate fat while aspirating provides benefits that include faster procedures, quicker recoveries and better results.
Toronto — When Israel- and Toronto-based Invasix launches its radiofrequency-assisted liposuction (RFAL) device known as BodyTite in the United States — pending clearance by the Food and Drug Administration (FDA) — eligible patients will have an exciting new option for body contouring.

“RFAL candidates would be anyone who is seeking lipo surgery, who wants less pain, bruising and discomfort on recovery, as well as optimal soft-tissue contraction,” says R. Stephen Mulholland, M.D., a board-certified cosmetic plastic surgeon with private aesthetic practices in Toronto and Los Angeles, and president and director of SpaMedica Infinite Vitality Clinic, Toronto.

RFAL REVEALED The RFAL device is a one-stage thermal-assisted lipoplasty technique that differs from other liposuction methods with its use of radiofrequency to liquefy and coagulate the adipose and vascular tissue while it is aspirated.

“It’s similar in concept to laser liposuction or laser lipolysis in that it uses an energy methodology to liquefy the fat,” Dr. Mulholland says.

This differs from techniques such as suction-assisted liposuction (SAL) and power-assisted liposuction (PAL), which use mechanical force to remove the fat. The use of radiofrequency energy provides some benefits over older, mechanical force and energy-assisted lipolysis methodologies, Dr. Mulholland says.

“The big advantage is that you’re heating, liquefying and coagulating while you’re aspirating. So it’s one stage, and it’s faster than existing energy-assisted liposuction methods,” he says. “In addition to being faster than other thermal liposuction systems, published studies show the uniformity and efficiency of RFAL allows for average area soft-tissue contraction of 30 to 40 percent, making some marginally skin laxity patients candidates for RFAL rather than more aggressive excisional techniques.”

The speed of RFAL, however, does not surpass that of SAL and PAL. Even though aspiration occurs at the same time as liquefaction and coagulation, the aspiration speed is not as fast as with PAL. “RFAL adds about five minutes per zone to get critical temperature, heat and contraction,” Dr. Mulholland says.

RFAL is also a more energy-efficient system than others on the market. “The number of effective joules and heat you can deliver in the tissue is much higher than you can get with laser or ultrasound, just by the efficient nature of radiofrequency current,” Dr. Mulholland says.

Despite the increased power — up to 75 watts — the BodyTite device is also safe, with a minimal risk of burns resulting from a negative feedback loop. It takes continuous internal and external measurements of impedance and temperature. “If any of those parameters have been exceeded or there is any suggestion from the internal temperatures that we may be overheating tissue and heading towards a burn, it will cut off the radiofrequency energy,” Dr. Mulholland says.

Burns are still possible, though Dr. Mulholland cites a less than 1 percent chance. Seromas are also a potential risk, but only in 1 to 2 percent of cases.

The level of power does bring some disadvantages, primarily in terms of use. Even though RF technology itself is not new to surgeons, who have used radiofrequency with surgical devices, hands-on training is required. “It’s not something you just learn from a book or go to a teaching workshop and listening. You need to get specialized, hands-on training. Even the most experienced of liposuction surgeons has a learning curve of 10 RFAL cases,” Dr. Mulholland says.

RFAL RESULTS With appropriate training, the device gives surgeons greater control over a greater amount of heat. The use

A patient before (left) and eight months after endoscopic browlift, upper lid blepharoplasty, endoscopic mid-face lift, NeckTite (Invasix) for closed anterior and lateral neck and RFAL.

(Photos credit: R. Stephen Mulholland, M.D.)

A patient before (left) and 12 months after RFAL of the hips, waist and abdomen.

(Photos credit: R. Stephen Mulholland, M.D.)
RFAL studies show real benefits

Renee Diitalio

Cosmetic surgeons in the United States are awaiting Food and Drug Administration (FDA) approval for Invasix’s BodyTite, a radiofrequency-assisted liposuction (RFAL) device. Many expect clearance to be granted this year, in part because of the early positive data.

Guillermo Blugerman, M.D., director of Clínica B&S de Excelencia en Cirugía Plastica, Buenos Aires, Argentina, heads one of the sites conducting these clinical trials. The clinic has performed more than 350 RFAL procedures. "We find that with this new technology, we can obtain faster results in a better way, mainly through the distribution of the heating process," Dr. Blugerman says.

Patients have been equally pleased with the results. "The patient satisfaction rate is very high," Dr. Blugerman says. The few patients who have undergone previous liposuction procedures, such as laser lipolysis, found the radiofrequency procedure more effective, he adds.

Dr. Blugerman says he has seen the best reshaping results in the breast area, both in male and female reduction procedures. Other areas where the device has been used include the neck, bra line, upper arms, stomach, inner thighs and inner knees. And though they are tighter areas of the body, the hips and outer thighs can also undergo RFAL for patients who want less bruising, swelling and pain. Men can treat the gut and love handles.

When comparing RFAL to laser liposuction (SmartLipo, Cynosure), Dr. Blugerman says he has seen faster procedures and quicker results with the former. In one study that has yet to be published, SmartLipo and BodyTite procedures were performed simultaneously 10 times. "We needed half of the time with the BodyTite as with the SmartLipo," Dr. Blugerman says.

Recovery, in terms of healing, was found to be similar, but RFAL patients showed a quicker improvement in skin contraction and aesthetics. "They look better in a shorter time," Dr. Blugerman says.

However, only appropriate candidates should undergo the procedure, and their expectations should be managed. "Roughly 10 to 20 percent of the abdominoplasty patients can be done with BodyTite. If you overemphasize the procedure, you will have unhappy patients," Dr. Blugerman says.

The primary hazards have been burns and seromas, but the risk for both has been minimal. "At the beginning, we believed that we would probably find more liquid collection in the tissue, but we haven't found any difference in this aspect," Dr. Blugerman says.

Burns are more likely in inexperienced hands. "If you don't have good control of the handpiece and the parameters, you can burn the skin," Dr. Blugerman says. Proper training can help to avoid this danger. Blugerman says he recommends hands-on training, observation and a slow approach for surgeons performing the first 10 procedures.

"As with every new technique, you need a learning curve to avoid problems," he says. This should not, however, discourage surgeons from adding RFAL to their practice. "In this competitive market, to maintain your position, you need to introduce new devices when they are available for the patients," he says.

DISCLOSURES: Dr. Blugerman conducts studies to evaluate the RFAL and lectures about the BodyTite system for Invasix, but he holds no contract with the company and receives only travel expenses for his work.