

Body of Evidence: Popular Laser Treatment To Remove Fat Draws Skepticism Smartlipo Isn't Better Than Basic Method, Some Doctors Say

Body-conscious Americans are flocking to a new, more-expensive liposuction technique, but there's scant evidence that it works any better than tried-and-true surgical body sculpting. Smartlipo, introduced in the U.S. just more than a year ago, uses a laser that melts excess fat so it can be drawn away from the body. The procedure is touted on physician Web sites and in beauty publications as a revolutionary way to zap and remove fat and tighten skin. So far, several thousand people have been treated with Smartlipo, according to its U.S. marketer, Cynosure Inc., of Westford, Mass.

But many cosmetic surgeons say Smartlipo isn't any more effective than tumescent liposuction, the medical standard for body sculpting. Both procedures require local anesthesia, are minimally invasive and generally allow the patient to return to regular activities within a couple of days. Smartlipo, however, can add many hundreds of dollars or more to the \$3,000 to \$10,000 cost of tumescent lipo, a price that varies widely depending on the surgeon and number of treated body areas.

"Smartlipo is a marketing gimmick to get people through the door," says William P. Coleman III, editor of the monthly journal of the American Society for Dermatologic Surgery. There's no scientific evidence in human tests that Smartlipo improves outcomes, tightens skin or speeds recovery, compared to tumescent liposuction, he adds.

"It's typical of new technologies that some physicians will at first be skeptical," says Michael Davin, Cynosure's chief executive. The company doesn't claim Smartlipo is superior to tumescent liposuction. But some individual cosmetic surgeons say lasers are a welcome addition to liposuction technology and that Smartlipo is helping to revive interest in liposuction.

Smartlipo "helps liquefy the fat to make it easier to remove, allowing me to sculpt areas better," says Stephen Greenberg, a New York plastic surgeon who recently paid \$150,000 for the Smartlipo laser used to perform the procedure. "Many of my patients come in specifically asking for [Smartlipo] after hearing other people talking about it," he says.

Liposuction remains one of the most popular cosmetic surgeries. But growth in the number of procedures performed has slowed in recent years as beauty seekers have gravitated toward nonsurgical procedures, including light treatments and facial

Ways to Get the Fat Out

Liposuction remains one of the most popular cosmetic surgeries, though its growth has slowed. Here are descriptions of two common techniques:

"Traditional" liposuction (developed in Europe in the mid-1970s)

- involves general anesthesia, putting the patient to sleep
- performed in a hospital or surgical facility
- often used for large-volume fat removal in heavy patients
- specialized tools called cannulas are used to soften fat before suctioning
- often combined with other plastic-surgical procedures
- can require one-to-two weeks' recovery

Tumescent liposuction (developed in the U.S. in the mid-1980s)

- involves local anesthesia, leaving the patient awake
- performed in a surgical facility or physician's office
- often used for small-volume fat removal in patients that are near ideal weight
- usually targets fat deposits in one or two areas only
- tools used to soften/liquefy fat before suctioning it out include cannulas and lasers (Smartlipo)
- patients recover in one or two days

Sources: American Society for Dermatologic Surgery; WSJ research

antiwrinkle injectables. Over the years, new liposuction technologies have been launched -- including ultrasound-assisted and power-assisted liposuction -- but enthusiasm for these died down once surgeons' experience caught up with the buzz. Cynosure says the Smartlipo laser was conceived by a Brazilian plastic surgeon and developed in the late 1990s by Cynosure's largest shareholder, El.En. S.p.A. of Florence, Italy.

When the Smartlipo laser is used, small incisions are made in the skin of body areas to be treated. Patients' fat is infused with a fluid solution, including numbing drugs, to compress blood vessels and minimize blood loss. The laser tip is inserted through the incisions, and the fat it melts is siphoned out of the body through tubes.

Surgeons who don't use the laser in tumescent liposuction instead use instruments called cannulas to loosen fat before suctioning it away from the body. Some surgeons use both cannulas and the laser to get the job done. With or without a laser, patients are treated in an outpatient clinic or a physician's office, and the incisions leave only tiny scars that heal without stitches.

Smartlipo promoters often compare the procedure with another, very different technique, sometimes called traditional liposuction. It involves the use of general anesthesia to put the patient to sleep and is more common in surgeries that remove large amounts of fat or combine liposuction with multiple procedures around the body. Traditional lipo is riskier, mainly because of the general anesthesia, and requires longer patient recovery times.

Donna Rae, a 62-year-old professional model in Caldwell, N.J., says she saw a TV segment on Smartlipo on the evening news. "I'm not a fat person," she says, but over the years "I had developed these unwanted pockets of fat."

In December, Ms. Rae decided to go ahead with Smartlipo treatment on two body areas, her lower abdomen and inner thighs. The combined cost was about \$4,000. "They give you a little pin prick to numb the area, and you are fully awake and watching the entire time" as the fat travels through a tube into plastic bags, Ms. Rae says. "Immediately after the surgery was done, I looked down and my stomach was not there."

Ms. Rae says she didn't need any stitches. Afterward, she says she was placed in a girdle before going home. "Three days later I was back to work, and two weeks later I was back exercising," Ms. Rae says, adding that she is so happy with the results that she has made an appointment to go back for more treatment on her hips and inner thighs.

Some surgeons who use Smartlipo say their patients are benefiting from a skin-tightening effect caused by the laser's thermal heating under the skin. Cynosure itself isn't permitted to promote skin tightening as a benefit of Smartlipo because that wasn't part of the Food and Drug Administration approval. The company says it is currently sponsoring human tests that it hopes will provide scientific proof that Smartlipo causes skin tightening.

But tumescent-liposuction surgeons who use tools other than lasers to dislodge and soften fat say they also see skin tightening, especially in young patients whose skin is naturally elastic. "Skin tightens in regular liposuction just as a mother's belly retracts" after pregnancy, says Paul Jarrod Frank, a dermatologic surgeon in New York.

Last fall, Smartlipo was the subject of a lively debate attended by a couple of hundred physicians at the American Society for Dermatologic Surgery's annual meeting in Chicago. Bruce Katz, a dermatologist in New York City who worked as a consultant for Cynosure when it was seeking FDA approval, presented data from his tests and discussed his professional experience with the device. "Not only did it melt fat but we saw skin tightening as well," he says he told the group.

But Lisa Donofrio, a New Haven, Conn., dermatologic surgeon who also was paid by Cynosure to participate in its FDA tests, says she told the meeting that she disagreed. "I didn't see it as something that would enhance my liposuction practice," she said. Dr. Donofrio said she tested the laser device on 15 patients' knees. She performed tumescent liposuction on both sides of each knee, and incorporated the use of the laser on only one side. Before-and-after pictures taken many months later didn't show any difference for the laser-treated side, she said.

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