

Smartlipo Cleared as First Laser Liposlysis System

Photos courtesy of Bruce Katz, M.D.



Before Tx



After Smartlipo Tx

"In properly selected cases, Smartlipo breaks up fibrosis very easily so it makes it simple to then proceed with normal liposuction."

A new, minimally invasive surgical procedure called LaserBodySculpting, using the Smartlipo from Cynosure, Inc. (Westford, Mass.), has been recently cleared by the FDA as the first and only device capable of laser assisted lipolysis.

This groundbreaking technology disrupts the fat cells through a thermal and photo mechanical action by heating and rupturing the fat cell membrane, allowing the material to be easily aspirated. Smartlipo's 1064 nm Nd:YAG laser coagulates the underlying vessels due to the hemostatic properties of the device, resulting in less bleeding, bruising, trauma and less post-operative downtime.

A laser fiber is introduced through a handpiece and detachable cannula. The incision is only 1 mm and for most areas the procedure can be performed under local anesthesia, which patients prefer. The technology was trialed in the U.S. by Bruce E. Katz, M.D. of the Juva Skin & Laser Center in New York City. He notes a unique benefit of the system is that it promotes tissue tightening through bulk thermal heating and tissue coagulation, something traditional liposuction cannot replicate. This allows patients with loose skin who previously would not be good

candidates for liposuction to achieve excellent results with Smartlipo's LaserBodySculpting procedure.



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"In properly selected cases, Smartlipo breaks up fibrosis very easily so it makes it simple to then proceed with normal liposuction," said Patricia Wexler, M.D., a dermatologic surgeon in Manhattan, N.Y. "Smartlipo is a great tool for people who traditionally would not be perfect liposuction candidates. They might have some laxity of the skin under the neck, the abdomen, the inner arms, or possibly the knees. Smartlipo helps address this condition with its tissue contraction capabilities. I have also seen hardly any bruising at all after treatment. Swelling is also much less, resulting in greater patient comfort."

Hard to treat areas such as the neck, jowl line, inner arms and inner thighs are considered Smartlipo's treatment "sweet spots" by Dr. Wexler. These regions are

easily navigated since the laser's aiming beam, located at the end of the small cannula (1 mm) where the laser fiber is housed, is visualized through the skin for proper placement and targeting.



Patricia Wexler, M.D.
Dermatologic Surgeon
Manhattan, NY

"I think you have to be truly proficient at regular liposuction. This is not for the novice," Dr. Wexler cautioned. "There is also a learning curve of knowing when you have done enough of the laser. Once you feel the loss of resistance with the fiber-optic tip, you have reached your end point. Then you can suction. You also still need to use your other parameters in looking for symmetry. You don't give up your old tools because there's a new tool. You integrate the old with the new."

Dr. Wexler's typical protocol is one session with Smartlipo. "Treatment is extremely comfortable because it releases fibrous banding," she said. "The upper abdomen is usually a little thicker

Photos courtesy of Alberto Goldman, M.D.



Before Tx

After Smartlipo Tx

to get through and more uncomfortable for the patient. But with this laser it's really easy to get through the tissue. This makes subsequent traditional liposuction actually quicker and easier. Smartlipo is also good for repeat liposuction. Overall, it is a sophisticated method of lipolysis. People who traditionally would not be good liposuction candidates now have an opportunity to have liposuction and avoid scalpel procedures."

Robert Gotkin, M.D., a plastic surgeon in Manhattan believes Smartlipo can be performed anywhere on the body where any other form of liposuction is applied. "It is particularly useful in areas of fibrous tissue," he said. "The laser gets past any resistance the tissue offers. Smartlipo also works well in areas that have been treated previously with liposuction because it is able to get by those areas of fibrous internal scarring. It also works great in gynecomastia and in areas where we may have been more reticent to treat previously with liposuction because the cannulas were larger, such as the lower legs and ankles."



Robert Gotkin, M.D.
Plastic Surgeon
Manhattan, NY

One disadvantage of liposuction procedures performed with ultrasound assisted technologies is the cannulas becoming hot. "When the ultrasound is applied, a lot of heat is generated in the cannulas. Therefore, the skin needs to be protected from burns," explained Dr. Gotkin. "The technology is larger with ultrasound, and the size of the incision

can range up to 10 mm, whereas with Smartlipo you can literally make a 1 mm incision with a needle. You don't even have to use a scalpel. The fiber-optic cable that carries the laser beam is 300 microns in diameter, carried through a very tiny introducer. The metal introducer does not become hot, so you don't have to worry about protecting the skin from heat and therefore is much easier to use.

Because bleeding is less with Smartlipo, the bruising is reduced and the recovery seems to be more comfortable for the patients, observed Dr. Gotkin. Additionally, Smartlipo can often be used superficially on the under-surface of the skin to break up the bands that cause cellulite and cause production of new collagen, which leads to better skin tightening and skin contraction.

"I think that in some areas of the body, Smartlipo will be better than traditional liposuction," said John Leikensohn, M.D., a plastic surgeon and otolaryngologist in Sarasota and Bradenton, Fla. "It will be a tremendous adjunct to current methods." To date, Dr. Leikensohn has noticed much less bruising, much less swelling and less pain after Smartlipo. Furthermore, "because the Nd:YAG laser reacts to the skin, there will be some skin tightening." How much would depend on the individual patient and how close the laser comes to the skin."

Smartlipo can be used either in isolation to treat small areas of fat or throughout the entire body (alone or in combination with regular liposuction). Dr. Leikensohn has isolated his treatment to underneath the skin (the submental area), the jowl and very small fat pads

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John Leikensohn, M.D.
Plastic Surgeon and
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Bradenton, FL

on the cheeks (but not underneath eye fat). "Smartlipo has been easy to integrate into my practice," Dr. Leikensohn conveyed. "There is tremendous interest for the procedure, especially with the surge in consumer media coverage. Patients view Smartlipo as much less invasive."

Recovery time also has proof points of being faster than traditional liposuction. Dr. Leikensohn recently treated a woman in her abdomen, outer thighs and inner thighs. "She went out to dinner that night, and the next morning took her dogs on a five mile walk," he said.

Dr. Leikensohn is achieving excellent results in the area under the chin and jowl (in women who are not quite ready to undergo a surgical face-lift) with Smartlipo. "The laser is also tremendous for treating in front of the armpit," he noted. In women, this applies to a fold of skin detectable while wearing an evening dress.

"Many of my patients have commented that they have seen regular liposuction on cable television, but it looks so brutal," said Dr. Leikensohn. "In contrast Smartlipo is a tiny instrument that is inserted in the body, which melts the fat cells. It seems less traumatic to the tissue. I consider Smartlipo the next generation of treatment for smaller isolated areas of extra fat."