

Cynosure Further Advances Laser Lipolysis with Smartlipo TriPlex

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Advances in laser lipolysis continue to redefine how liposuction is performed, expanding a procedure once reserved for the obese. With the introduction of Smartlipo TriPlex from Cynosure, Inc. (Westford, Mass.), the laser can now be used for cases that range from chisel sharp sculpting to large-scale debulking.

"Smartlipo TriPlex has changed everything," said John A. Millard, M.D., a board certified cosmetic surgeon in Lone Tree, Colo. "It is predictable, fast, safe and more reliable. It causes no thermal damage, much less swelling and very little bruising. Physicians who don't embrace this technology will lose patients – it is the future."

The release of Smartlipo in 2006 heralded the introduction of laser lipolysis to the aesthetic industry. A 1064 nm Nd:YAG laser fiber was inserted through a small cannula under local anesthetic, delivering energy directly to subcutaneous adipocytes and causing them to rupture. Furthermore, the energy coagulated tissue, inducing collagen retraction and tissue tightening. The system also allowed for use of smaller, 2 mm suction cannulas to aspirate the lysed adipose tissue.

Cynosure then introduced Smartlipo MPX which increased efficiency and achieved more consistent heat penetration through sequential 1064 nm and 1320 nm wavelengths. The 1320 nm wavelength also improved tissue tightening significantly through tissue coagulation.

Now, with Smartlipo TriPlex, Cynosure adds yet another dimension with a 1440 nm wavelength. "The additional photomechanical effects of the 1440 nm wavelength have put this technology into an entirely new class," stated Barry DiBernardo, M.D., F.A.C.S., a board certified plastic surgeon in Montclair, N.J. "I can now easily treat large areas and continue to achieve excellent tissue tightening through coagulation with 1064 nm and 1320 nm."

According to Dr. DiBernardo, 1440 nm achieves 20 times more absorption in adipose tissue than the 1320 nm and 40 times more absorption than diode lasers. "The high absorption allows me to efficiently disrupt adipose tissue, making the laser-assisted lipolysis and aspiration portions of the procedure much faster."

Dr. Millard said he will use Smartlipo TriPlex, in many of his future cases, in place of ultrasound-assisted lipoplasty (UAL). "The photomechanical effect of 1440 nm is so massive that you can hear the popping of the gas bubbles in the tumesced tissue, causing fat cells to loosen."

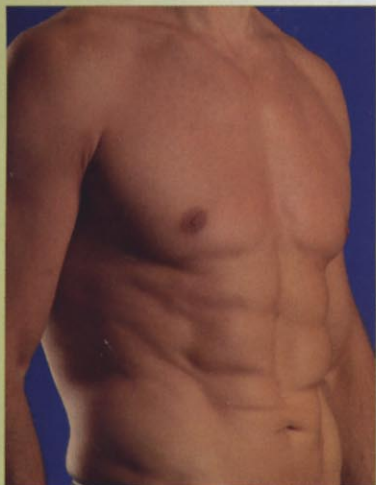
For debulking, Dr. DiBernardo said the practitioner can blend 1064 nm with 1440 nm to efficiently disrupt fat. As laser technology becomes more effective at reducing larger fat volumes, the need for multimodality therapy is diminished. In the same procedure, the Smartlipo TriPlex allows for the blending of 1064 nm and 1320 nm wavelengths for proven tissue tightening results through coagulation.

Dr. DiBernardo envisions the use of Smartlipo TriPlex for most patients with lax skin, particularly in trouble spots such as the arms, neck or lower lax abdomen. Dr. Millard uses Smartlipo TriPlex in a pioneering sculpting procedure for fitness enthusiasts with just 8% to 10% body fat. "We are literally sculpting bodies, not just removing saddlebags," he said.

Critical to success and safety is the use of Smartlipo's SmartSense, which disperses energy more evenly (essential when terminally heating the skin) and discontinues laser energy delivery within 0.2 seconds if the handpiece stops moving. Just as important is the use of ThermaGuide, which delivers laser energy until the target temperature is reached.



Before Tx



After Tx

Photos courtesy of John A. Millard, M.D.