

SlimLipo's Advanced Technology Specifically Targets Adipose Tissue

By Ilya Petrou, M.D., Contributing Editor

Palomar Medical Technologies (Amsterdam, The Netherlands) SlimLipo is raising the bar in minimally invasive laser body sculpting procedures. By using an optimized diode laser wavelength to selectively target adipocytes, treatment achieves superior cosmetic results. Experts agree that SlimLipo's lipid specific wavelength is a key feature separating it from other laser-assisted lipolysis devices and standard liposuction.

This FDA cleared laser-assisted lipolysis device combines two distinct diode laser wavelengths – 924 nm to specifically target adipocytes and 975 nm to specifically target water. Instead of relying on traditional methods to remove fat, the laser gently melts it for easy removal from the body with less downtime, increased safety and a smoother result compared to other lipolysis devices.

According to Brooke Seckel, M.D., founder of the Lahey Center for Cosmetic and Laser Surgery in Lexington, Massachusetts, U.S., "The problem with laser wavelengths that target water is that fat is our real target and adipocytes do not mix with water. The primary mechanism of laser surgery is the selective photothermolytic effect, which requires proper choice of wavelength and power. If you don't use target specific wavelengths you're ignoring the major benefit of a laser in the first place."

SlimLipo's ability to more uniformly melt fat allows for the use of smaller suction cannulas (2.5 mm to 3.5 mm),



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which results in less trauma to the surrounding tissue structures. Its unique and flexible treatment tip easily moves through fibrous areas and around corners for superior sculpting.

"In addition to some thermal heating of the collagen by adjacent heated fat, the addition of a laser wavelength that specifically targets water enables very effective tightening of the fibrous tissue that holds the skin to the muscle fascia," Dr. Seckel noted.

"The absorption of energy by human fat increases profoundly at the 924 nm wavelength; therefore, Palomar engineers designed their Aspire system from the ground up to achieve maximum energy absorption by adipose tissue," explained Robert Weiss, M.D., director of the Maryland Laser Skin and Vein Institute, LLC in Hunt Valley, Maryland, U.S.



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According to Dr. Weiss, who is also a clinical professor of dermatology at Johns Hopkins University School of

Medicine (Baltimore, Maryland, U.S.), SlimLipo's continuous wave pulse mode enhances fat emulsion by allowing for a faster delivery of constant energy compared to many other devices that pulse in microseconds.

"Between the continuous mode and the lipid specific wavelength, SlimLipo can liquefy a large amount of fat relatively safely, allowing the use of a much smaller suction cannula and making the procedure much less invasive. Also, SlimLipo's tip design provides a much wider area of coverage by the beam resulting in more efficiency per pass with less effort," Dr. Weiss said. SlimLipo's treatment tip disperses energy in a wide, but directed zone; therefore, heating is more controlled.

In Dr. Seckel's opinion, SlimLipo is a more refined treatment compared to traditional liposuction. It produces much less trauma, resultant swelling and edema. The decreased swelling allows the surgeon to palpate the treatment area more effectively. "SlimLipo's gentler technique dramatically reduces the incidence of contour deformities such as divots, depressions or lines of irregularity typically seen with inconsistent, asymmetric fat removal. That is the most dramatic difference," Dr. Seckel stated.

SlimLipo can be equally effective for large volume extraction or small scale sculpting, which increases its potential market for fat removal treatment to include patients who previously could not receive treatment because they did not have enough adipose tissue for traditional liposuction, or they had loose skin.

"I feel that the SlimLipo is a true laser body sculpting device that allows you to address areas of fat that have been traditionally very difficult to reach. Not only can you easily treat these areas, you also achieve smoother results around body curves," Dr. Weiss said.



Before Tx



After Tx
Photos courtesy of Jeff Angobaldo, M.D.



Before Tx



One month after Tx
Photos courtesy of Philip Craft, M.D.