



# The Medical Power of Light

## Laser Lipolysis

Optimal body shaping results with minimal downtime

- Safe, fast and effective treatment
- Little trauma and minimal discomfort during the procedure
- Simultaneous skin tightening avoids loose skin
- No general anesthesia required
- No stitches required
- Faster recovery

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before



Courtesy of Laimmed

after

before



Courtesy of Dr. Volavec

after

before



Courtesy of Prof. Massoud

after

## What is Laser Lipolysis?

Laser Lipolysis is the least invasive surgical treatment method for fat reduction. Laser light energy is used to cause the swelling and rupture of adipocytes. When the fat is »melted«, it can either be absorbed by the body or removed by the physician with the use of liposuction.

## How does it work?

The Nd:YAG laser is administered through a very fine optical fiber in a cannula which is inserted through a small incision into the to-be-treated area.

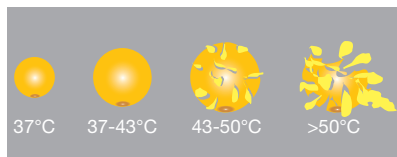


Fig. 1: Fat cells are destroyed at temperatures above 50°C.

While melting the fatty tissue the Nd:YAG laser also tightens the surrounding skin, preventing it from sagging after the fatty deposits have been removed. The controlled heating effect of the laser provokes new collagen and elastin formation within the skin. Shrinking is more pronounced and the skin is much smoother than after classical liposuction. The general steps of the treatment are as follows:

**Step 1 - ACCESS:** A 1-2 mm incision is made to create an entry hole and tumescent anesthesia is infiltrated. In addition to its anesthetic effect, tumescent liquid inflates the region and spreads the fat tissue, enabling easier cannula penetration.

**Step 2 - MELT and TIGHTEN:** Using the same entry points made previously for tumescent infiltration, the cannula with the laser fiber is introduced into the subcutaneous fat. Laser energy from a Nd:YAG laser is delivered to the desired location and as the adipocytes are heated by the laser they rupture to create liquefied fat emulsion. During

the laser action a »popcorn popping« like effect indicates the rupturing of adipocytes. While melting the fatty tissue the Nd:YAG laser also tightens the surrounding skin.

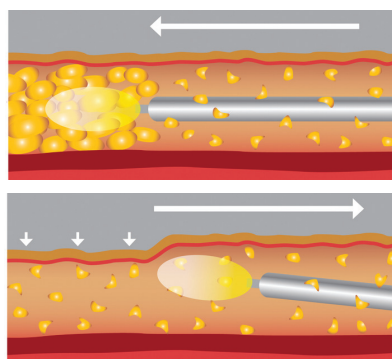


Fig. 2: Melting of fatty tissue and simultaneous skin tightening.

**Step 3 - REMOVE:** Smaller quantities of liquefied fatty tissue are easily absorbed and naturally removed by the body's own immune system, while larger quantities of liquefied fat are easily and safely removed by suction.

## Why is Fotona's Nd:YAG perfect for Laser Lipolysis?

Fotona's Nd:YAG's 1064 nm wavelength can achieve deep penetration and is suitable for all skin types. Studies show that compared to other wavelengths, using the Nd:YAG wavelength in laser lipolysis exhibits the largest directly heated volume of subcutaneous tissue, making it more efficient. This wavelength also has the smallest undesirable thermal effect on neighboring dermal tissue and is therefore, less invasive and the treated area heals faster.

Fotona's Nd:YAG laser systems offer the least invasive surgical body shaping method available to aesthetic practitioners. Thanks to Fotona's numerous safety and treatment enhancement features - such as its VSP Technology - procedures are safer, faster and easier for surgeons to learn and perform.

## Advantages for You and Your Patients

Laser lipolysis is less invasive than classical liposuction because only a 1-2 mm incision is required to insert the cannula with a laser fiber and there is usually no need for general anesthesia. The fatty tissue removal process requires less external force and exertion compared to the standard liposuction. Thermally induced coagulation minimizes bleeding and trauma, as well as post-treatment bruising and swelling. Patients can thus expect shorter recovery times and a reduced need for compressive garments, while they can get back to their daily activities virtually immediately after the procedure. Complementary optimal skin tightening effects add to high patient acceptance and shortened recovery times.



Fig. 3: Fotona's Laser Lipolysis treatments produce great results with faster healing.

## Getting started with Laser Lipolysis

Laser Lipolysis can be preformed with Fotona's Nd:YAG laser systems. Fotona additionally offers a Laser Lipolysis Upgrade Kit, giving practitioners the necessary knowledge, accessories and tools to confidently and skillfully perform the procedure on their patients. Training in Laser Lipolysis is provided through Fotona's partnership with the Laser and Health Academy, where participants cover basic laser physics and gain an in-depth understanding of laser-tissue interaction. Live demonstrations give participants an insight in Laser Lipolysis and other surgical procedures that can be performed with Fotona's range of surgical laser systems.

To learn more about **Laser Lipolysis** and what Fotona lasers can do for your practice contact **Fotona** at [info@fotona.com](mailto:info@fotona.com) today.