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CoolLipo™
Frequently Asked Questions

How does the laser energy disrupt the fat?

The CoolLipo treatment does not depend completely on the optical absorption properties of fat as fat is very difficult to target using conventional selective photothermolysis. The CoolLipo laser uses a photoacoustic effect that is produced by a series of very short-duration, high-energy laser pulses. The initial laser energy heats the fiber tip causing a char to form. As the heating process continues, significant amounts of energy are absorbed by the carbon char on the fiber tip vaporizing the tissue in direct contact with the fiber tip. Each pulse of the laser causes this vaporization and generates a powerful acoustic shock wave (explosion) that causes mechanical disruption (lysis) to cellular structures. This effect explodes tissue and fat without extensive thermal effects; the fat is liquefied, not cooked.
Remember this is a photoacoustic effect and is different from the normal thermal effect to tissue caused by the absorption of laser energy.

Is all of the laser energy directed into the photoacoustic effect?

No, approximately 25% of the laser energy passes through the vaporized material and is absorbed by collagen in the surrounding tissue.

What makes the 1320 nm wavelength a better choice for laser-assisted lipolysis?

The unique 1320 nm wavelength characteristics make it a safe and effective choice for laser-assisted lipolysis. The 1320 nm wavelength is much more highly absorbed in normal collagen and tissue and is more effective at shrinking and tightening the skin. This wavelength is absorbed by the water in the skin that allows uniform absorption and can be used on any skin type without skin pigment changes. In addition, 1320 is not absorbed by hemoglobin, this minimizes bruising and purpura.

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Why can't I use a CTEV for this? They are both 1320 nm lasers. What is the difference between the CTEV laser and the CoolLipo combined unit?

Successful laser lipolysis depends almost entirely on the photoacoustic effect. In order to generate this, a very short pulse system along with a special fiber is needed. The CTEV is not a short pulse system and therefore will not provide the photoacoustic effect that is needed for successful lipolysis. The CoolLipo combo unit is a short pulse system so it can perform both lipolysis and endovenous ablation.

How does the CoolLipo™ system compare to the Smartlipo™?

CoolLipo is a safer more effective wavelength with higher peak power and therefore more successful at disrupting fat, this makes follow-up liposuction easier and faster. See the product comparison sheet for specific details.

Can the CoolLipo procedure be performed on the stomach, hip, buttocks or other larger fatty areas?

Currently the CoolLipo procedure is recommended for small volumes of excess adipose tissue that are not easy accessible with standard liposuction such as the neck, chin or jowl areas or for additional contouring or fine-tuning in conjunction with or subsequent to, the treatment of large volume areas of the body that have been treated with conventional liposuction techniques. Studies are in progress for the efficacy of laser-assisted lipolysis on larger fatty areas.

Could a physician use the CoolLipo system as a replacement for liposuction?

CoolTouch's recommendation is to use the CoolLipo system as an adjunct procedure with liposuction and/or aspiration. Clinical studies are in effect using CoolLipo as a standalone modality.

Is the CoolLipo system cleared for lipolysis by the FDA?

Yes, the CoolLipo system was FDA cleared for laser assisted Lipolysis in _____2007.

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What type of training do you provide?

CoolLipo training is included in the sale of a CoolLipo system. CoolTouch offers a 1 day preceptorship for physicians who already perform liposuction within their practice. CoolTouch will arrange for a 2 day training course for physicians who haven't performed liposuction prior to being trained with the CoolLipo laser system.

Fiber FAQs

How is the fiber delivered to the treatment site?

The fiber is inserted through a cannula that is positioned sub-epidermal. Different cannula can be used depending on physician preference. One technique utilizes a 20G (0.89 mm) by 4 inch long metal cannula that the 320 um fiber is inserted through, leaving 5 mm of fiber exposed beyond the tip of the cannula. The fiber is then locked in place with a stainless steel Tuohy-Borst adapter.

Does the CoolLipo require a proprietary fiber?

Yes, the CoolLipo system requires a specially constructed fiber that is proprietary to the CoolLipo system. Fibers sizes are 200, 320 and 500 um. Fibers are provided as re-sterilizable 5-use items.

Do you need to strip and (then) cleave the fiber after each use?

The protective white jacket material needs to be stripped prior to the procedure and cleaved after use. Check for a bright, round aiming beam after each cleave.