

## FACT SHEET

### Laser-Assisted Liposuction

Liposuction has been used to remove pockets of excess fat for decades, with dermatologists continually refining the technique to enhance results and improve the safety of the procedure. Dermatologist Robert A. Weiss, MD, FAAD, associate professor of dermatology at Johns Hopkins University School of Medicine in Baltimore, shared the added benefits of using lasers with liposuction.

### How Lasers Enhance Liposuction

- Lasers enhance liposuction by heating the fat, essentially turning a semi-soft substance into a liquid state, to facilitate its removal.
- Normally, lasers absorb about 90 percent water. Certain wavelengths used during laser-assisted liposuction are absorbed more by fat than by water, allowing the laser to selectively melt fat. Lasers also create a better channel to eliminate the tumescent fluid that is injected into the treatment area as an anesthetic.
  - Following a standard tumescent liposuction procedure, the amount of tumescent fluid that is injected into the body slowly seeps out within about three days.
  - With a laser-assisted procedure, this fluid usually dissipates in 12 to 24 hours.
- Patients also may experience an improvement in the tone and texture of treated areas with laser-assisted liposuction.
  - Dr. Weiss noted that lasers are used on the surface of the skin to tighten lax areas, and the same principle applies to lasers used during liposuction.
  - Patients with loose or crêpey skin, typically those over age 45, can benefit from the laser's tightening properties because their skin does not bounce back as easily as a younger patient's skin following liposuction.
- A number of different laser systems for liposuction are available.
  - Some lasers deliver the laser energy through a thin fiber that is combined with the cannula (the tool that is inserted into the body to break up and remove fat).
  - Other systems use the laser *first* to melt the fat in a targeted area, then the cannula is used to quickly remove the liquefied fat – resulting in a faster procedure.
  - Other lasers are used *after* the standard liposuction procedure to tone and tighten treated areas of loose or sagging skin.

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### **Overall Benefits of Laser-Assisted Liposuction**

- More efficient removal of fat and more fat can be removed than with standard liposuction.
- Less bruising following the procedure.
- Faster healing/recovery period.
- Less tumescent fluid is required since less of a cushion is needed due to the liquefied fat.
- Multiple areas of the body can be treated successfully, including the hips, abdomen, thighs, arms, knees and buttocks.
- Patients will notice results faster than with traditional liposuction.
  - With standard liposuction, results aren't fully noticeable until two to four weeks.
  - With laser-assisted liposuction, results can be seen after only one week.

### **Best Candidates for the Procedure**

- Patients who might be 20 percent overweight or those with some localized pockets of fat that won't respond to diet and exercise.
  - The procedure is not a solution for obese patients.
- Patients in good physical condition and with good muscle tone respond best to the procedure.
- Patients who regularly exercise and follow a calorie-controlled diet will have enhanced results.

### **Potential Safety Concerns**

- Dr. Weiss noted that early on there were some reports of lasers puncturing through the skin and creating small scars.
- Safeguards on the equipment have been added to ensure the utmost safety of the laser procedure, including:
  - Very tiny laser fibers (0.5 millimeter to 1.5 millimeters) with a more rounded, redesigned tip that cannot easily puncture through the skin.
  - An added device to detect how fast the laser fiber is moving, with an automatic shut-off mode.
  - Some new devices also monitor temperature and shut off if the temperature rises too quickly.

### **Questions to Ask Before the Procedure**

- Dr. Weiss recommended that patients discuss the physician's experience with laser surgery.
- Ask how many years the physician has been performing liposuction.
- Patients should discuss their expectations with their physician to ensure the procedure is right for them.
  - Patients with lax abdominal muscles may not benefit from the procedure as much as a patient with tighter abdominal muscles.

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- Similarly, while the procedure can remove fat deposits in the knee area, it cannot change the anatomical width of the knee.
- Patients should understand if they gain significant weight after the procedure, fat will be deposited in new and unpredictable areas of the body.

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