

Laser-assisted liposuction aids wound healing

By **Patty Reiman**
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Chicago — Low-level laser therapy during liposuction appears to satisfy the patient's and cosmetic surgeon's hopes of wound healing and overall results, according to feedback from an academy study.

Although not widely practiced now, low-level laser therapy during liposuction was studied by several members of the American Academy of Cosmetic Surgery, including a group that completed a preliminary study last fall.



Dr. Lack

Edward Lack, M.D., one of the study group's dermatologic cosmetic surgeons, said the Erchonia laser (Erchonia Medical Lasers) used in their study is the only low-level laser therapy with a 510K approval from the FDA. Dr. Lack estimated he has used laser-assisted liposuction for nearly one year and treated close to 100 patients so far.

He typically applies the low-level (636 nm) laser to the area being treated in 10 to 12 minute increments, although an optimal time exposure has not yet been proven. He administers the laser after tumescing the tissue and before liposuction begins. This adds an estimated 30 minutes to procedure time. He said laser application could take place during recovery without changing the laser's effects on wound healing or results. Doing so would eliminate the need for an addi-

tional 30 minutes of procedure time and would not extend recovery time, he said.

"We think we're accomplishing a markedly improved and altered wound healing process, so it wouldn't matter if you did it before or after surgery. Either way, it will improve wound healing," said Dr. Lack, director for the Center for Liposculpture and Cosmetic Laser Surgery, Chicago.

Studying lasers and liposuction

When setting out to conduct the research, the surgeons wanted to evaluate the effects of the low-level laser during surgery and two weeks afterward. They treated an estimated 40 patients, most of whom were women, in various areas of the body; some were treated at the hips, others at the thighs, etc. Each patient had one side of the body treated with just liposuction. The other side of the body received laser therapy in conjunction with liposuction.

Group results showed that during surgery, the addition of laser therapy did not appear to impact or improve the procedure for the surgeon. Surgeons could not identify — on the whole — any consistent differences between liposuction-only procedures and those accompanied by low-level laser therapy. However, on an individual basis, the laser therapy made the procedure easier to do, resulted in less blood loss, and the fat removed was more liquid and emulsified, Dr. Lack noted.

The more noticeable benefits of laser-assisted liposuction appeared two weeks after surgery. Surgeons reported patients had less swelling and less induration on

areas treated with the low-level laser therapy when compared to the liposuction-only treatment areas. Patients reported less discomfort during healing in areas treated by laser, as well.

An informal survey of Dr. Lack's patients showed that the laser decreased discomfort, healing, and swelling. Several of his patients had traditional liposuction performed a few years ago and then recently underwent laser-assisted liposuction done for this study. Most, if not all of these patients, preferred the addition of the laser to their liposuction procedure.

"They said the presence of the laser was very dramatic," he said.

In general, Dr. Lack said surgeons and patients "were much more impressed with the laser than the study would indicate."

If future studies indicate an intraoperative surgical benefit of laser-assisted liposuction, the laser would have to be administered before liposuction, and not during recovery, Dr. Lack said.

He explained that low-level laser therapy appears to work at the cellular level, not tissue. As such, the laser's effects may be generalized and felt throughout the body and its cells. Because study participants received both liposuction-only and laser-assisted liposuction, the laser's effects probably traveled throughout the body, possibly improving the liposuction-only wound healing process.

"Those of us who do this procedure are very enthusiastic. Patients certainly like it," Dr. Lack said. "It behooves us to do studies to prove it scientifically." CST

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