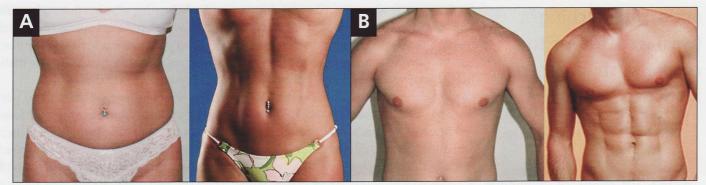
Cosmetic Surgery Times

Where the Exchange on Aesthetic Perspective Begins



High definition lipo 3D sculpting highlights muscle tone

A. (left) 41 year old female patient of Dr. Millard before and four months after high definition LipoSelection of circumferential torso; no change in diet or exercise.

B. (right) Male high definition liposculpture patient of Dr. Hoyos, pre- and post-op.

Photos:John A. Millard, M.D. and Alfred Hoyos, M.D.

QuickREAD

High-definition liposculpture is a technique developed by Alfredo Hoyos, M.D., that involves removal of deep and superficial fat to enhance the visibility of well-toned abdominal muscles. It is performed with ultrasound-assisted lipoplasty technology (LipoSelection, Vaser) and is intended for generally fit men and women who seek greater visibility of their muscular detail. Successful outcomes depend on intensive training in the surgical technique combined with an understanding of how superficial anatomy influences external appearance.

By CHERYL GUTTMAN SENIOR STAFF CORRESPONDENT

Lone Tree, Colo. — High-definition liposculpture is an advanced liposuction technique that enhances the visibility of well toned muscles and simultaneously has the potential to enhance the liposuction segment of a cosmetic surgery practice, according to John A. Millard, M.D.

"High definition liposculpture **Dr. M** elevates liposculpting to a new, higher level and targets a whole new demographic group in the population who would otherwise never have considered themselves candidates for liposuction.

"As a result, it can provide an avenue for practice expansion and may change perceptions about liposuction in the future so that it will be viewed as an adjunct to a fitness program rather than a response to failure," Dr. Millard, a private practitioner in Lone Tree, Colo., tells **Cosmetic Surgery Times**.



Dr. Millard

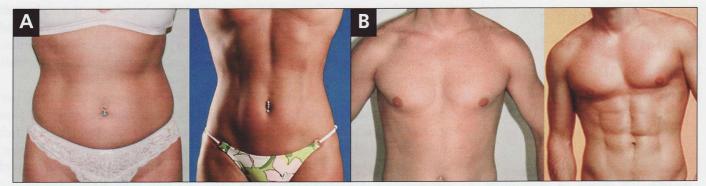
Define the muscles

Developed by Colombian plastic surgeon Alfredo Hoyos, M.D., high-definition liposculpture creates a sculpted, athletic appearance by improving the contours of the subcutaneous fat and the definition of the underlying musculature.

It involves precisely performed, deep and superficial liposuction around muscle groups in the abdomen, the chest in men and the lower back and gluteus in women using ultrasoundassisted lipoplasty (LipoSelection, Vaser). The procedure was enabled with the advent of that advanced liposuction technology, but its success requires that the surgeon have well-trained hands and an artful eye, Dr. Millard says.

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"...The failure of abdominal etching... (was) its **attempt to create a 'six-pack'** in all patients."

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"In fact, the failure of abdominal etching as a previous liposculpture approach can be attributed in part to its attempt to create a 'six-pack' in all patients. While appropriate for men, the end result in women was an odd and unnatural appearance," Dr. Millard says.

"Abdominal etching also failed in that it ignored the contribution made by other muscles, and because, unlike high definition liposculpture, it was not a 3D approach."

Ideal candidates

Since high definition liposculpture is designed to be a sculpting procedure rather than a debulking technique, the appropriate candidate is the person who has good muscle tone without excessive amounts of fat or lax skin.

"Probably about 95 percent of people who undergo this procedure work out three to five days a week and the majority work out five or six days. However, they may fail to achieve the desired muscle definition because that depends on the presence of a very low level of total body fat, about 3 percent. High definition liposculpture produces that endpoint locally by aggressively removing the deep and superficial fat, which otherwise obscures the detail of the underlying muscles," Dr. Millard explains.

Turn up the tone

The procedure is performed with tumescent anesthetic infiltration.

Dr. Millard performs most of his cases using epidural anesthesia, although he notes that the majority of surgeons would likely undertake the procedure using general anesthesia.

The first step is to mark the muscle bellies that will be enhanced. In women, high definition liposculpture targets the serratus muscles, the obliques and the rectus muscle in the abdominal area as well as the gluteus and perispinal muscles in the lumbosacral curve. In males, the same abdominal muscles are targeted with attention also directed to the transverse tendinous intersections within the rectus abdominous muscle in order to create a washboard appearance. In addition, the pectoralis muscles are enhanced because of their contribution to the anterior topographical view.

The sculpting procedure begins with fat removal that creates a "picture frame" around the muscles to be enhanced. Next, the surgeon performs more precise sculpting that leaves behind small amounts of fat to amplify the underlying muscle tone.

Cosmetic outcomes

After the procedure, patients must wait about a month before returning to their exercise routine.

The first evidence of the improved muscle definition can be seen at about two weeks when the postprocedural edema has appreciably resolved. By two months, the appearance may be close to maximum in the morning but may be less optimal as the day progresses due to the onset of swelling. Final results are seen after about four months.

Since learning the procedure from Dr. Hoyos in 2006, Dr. Millard has performed high definition liposculpture in approximately 50 men and women. Cosmetic outcomes have been excellent and there have been no cases of burns or serious complications. However, Dr. Millard notes the risk of seroma is increased slightly with this procedure, probably because it involves removal of the superficial fat. "Seroma is less likely after traditional liposuction that primarily involves removal of deeper layers of fat. However, if it occurs, seroma is easily treatable in the office and has not adversely affected the final result of the high definition procedure," Dr. Millard says.

Data capture

Currently, he is planning a prospective study that will include analyses of patient satisfaction, complications and long term outcomes.

Dr. Millard hypothesizes that study results will show higher patient satisfaction as well as greater patient ability to retain their postprocedural appearance relative to the traditional liposuction population.

"In the literature, only about 50 percent of patients who undergo traditional liposuction are able to maintain their body weight and post-treatment appearance, and those data are consistent with the fact that only about half of that patient population works out on a routine basis. When it comes to being in the gym, the demographic group undergoing this procedure is much more motivated from the outset, and that characteristic is likely to translate into better long term results," he says.

High definition liposculpture is **designed to be a sculpting...rather than a debulking** technique.

Dr. Millard emphasizes that high definition liposculpture requires one on one training with a skilled surgeon. He visited Dr. Hoyos at his clinic in Bogota, Colombia, and, after returning home, worked for a month with Dr. Hoyos at his side.

Currently, he and Dr. Hoyos are developing a three day course that will involve hands-on training with live surgeries. **CST**

For more information: john@millardplasticsurgery.com