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A sculpted bod could be yours!

Two FDA-approved, high-tech 'fat blasters' promise results with no surgery. But should you do it?



Story
by Rita Rubin
USA TODAY

Are your love handles getting you down? But does the thought of liposuction make you queasy?

Well, in the past month the Food and Drug Administration gave two companies the go-ahead to market non-invasive fat blasters. With these machines, the makers say, you'll get a slimmer physique with little pain.

CoolSculpting by Zeltiq, based in Pleasanton, Calif., promises to kill fat cells with coldness. And, according to Zerona "cool laser" maker Erchonia, based in McKinney, Texas, that device pricks the membranes of fat cells, letting the fat flow out like air from a popped balloon.

Before the FDA approved the machines as stand-alone fat blasters, CoolSculpting was on the market for pain relief; the Zerona laser was on the market for pain relief and as an adjunct to liposuction, in which a doctor cuts through flesh to suck out the fat. So doctors had been using them "off label" as liposuction alternatives.

So far, about 50 U.S. medical practices own the CoolSculpting machine, co-developer Dieter Manstein says. About 20,000 patients have been treated with the Zerona laser in 700 U.S. clinics, says Ryan Maloney, Erchonia medical director.

Manstein says CoolSculpting costs \$700 to \$1,500 for each site treated. Maloney says a typical two-week Zerona treatment on average costs \$1,800.

How they work

The CoolSculpting device draws up a fat bulge between two cooling panels. At first, patients feel intense cold that soon dissipates.

"If cold, just cold, is in a very specific manner applied to the skin, it's able to selectively damage the fat

cells," says Manstein, a dermatology instructor at Harvard Medical School. "The fat is basically frozen."

Treatments last one hour to three hours, according to Zeltiq. For a week or two afterward, the area might feel a little irritated, Manstein says. For some people, he says, one application is enough, but others require a second application in a month or so.

The Zerona laser is called cool because it doesn't heat the skin, Maloney says. The laser targets light receptors in fat cells, creating holes in their membranes, he says. Treatments last 40 minutes — 20 minutes each side. Erchonia recommends three treatments a week for two weeks.

How safe is it?

Although Maloney says the Zerona laser doesn't destroy fat cells, both devices probably really do, says Boston University scientist Susan Fried, whose research focuses on obesity and the biology of fat tissue.

"I don't really doubt that they can get rid of some fat this way," Fried says. "I'm just not convinced that it has no long-term health consequences."

Breaking up the cells can release tiny fat droplets, which, if they escape into the bloodstream, she says, could cause a lethal embolism, or obstruction. Another possible scenario: Macrophages, the scavenger cells of the immune system, could eat the fat cells' remains and deposit the material elsewhere, like in the coronary arteries.

Even if fat deposits could be destroyed safely, would you really want to? Fried asks. If you gain weight, "you're going to put it someplace else, and that other place could be bad" — specifically, around the organs in the abdomen, considered a riskier location than on the hips or thighs.



Zeltiq's CoolSculpting:
Freezes the fat.



Zerona: "Cool laser" emulsifies fat tissue.