

PLASTIC SURGERY

Removing fat the painless way

When it comes to fat removal, there are non-invasive and largely pain-free alternatives to liposuction. We speak to an expert on two such techniques, VelaShape III™ and LipoCryo®.



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Liposuction is a technique of removing fat from under the skin using a hollow tube, called a cannula. A high-pressure suction is applied to the cannula, which the doctor carefully moves around the area to be treated.

However, for people who are considering fat removal or body-shaping procedures but prefer not to go under the knife, there are non-invasive procedures available that are virtually pain-free. Best of all, there is no downtime — the patient can get up and go after each session.

Two such techniques to consider are VelaShape III™ and LipoCryo®. These non-invasive treatments need to be done a few times to any one particular area, so patients need to commit to a programme of at least three to five sessions. The frequency of these sessions depends on the modality: for VelaShape III™, once a week; for LipoCryo®, once every six weeks. This is to give time for the body to recover and metabolise the by-products that will result from the treatments.

VelaShape III™

Heat is generated using a combination of infrared (IR) and radiofrequency (RF) technology. The energy is directed at the fat cells, connective tissues, fibrous bands as well as dermal collagen fibres that cause cellulite. At the same time, suction and mechanical agitation allow the heat to penetrate deeper and mobilise the fat from the cells.

This promotes an increase in tissue circulation, lymphatic drainage, cellular metabolism and collagen deposits. Furthermore, it stimulates fibroblast activity and remodels the extracellular matrix. The end result is a localised reduction of fat volume and an overall improvement in skin surface texture and tightness.

LipoCryo®

This technique combines vacuum and specifically controlled targeted cooling technology. The patient experiences the sensation of being pulled as the subcutaneous fat tissue is rapidly cooled via a handpiece





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positioned on the treatment area. Over the next few months, the crystallised fat cells break down and are naturally passed out of the body.

Here are answers to some frequently asked questions about these two procedures:

Are VelaShape III™ and LipoCryo® as efficient as traditional liposuction?

It's a popular misconception, but non-invasive techniques will never be as effective as liposuction. Firstly, liposuction offers surgical precision; with it, doctors can remove as little or as much fat as they want from where they want, all in one go. Nothing else can be as precise as that. These non-invasive treatments are an alternative to liposuction; they can also be used in combination with

liposuction to further refine the results after liposuction. Secondly, they also need to be done a few times to any one particular area — one treatment alone is unlikely to solve the problem significantly, so the results take time.

Can these two modalities be combined?

Very often, for patients who don't want surgery, a combination of these two treatments can be customised. Applying two modalities on patients stresses their fat cells, which leads to a more effective fat loss. But the stress is only to the fat cells, not the body. So these two modalities of treatment are highly specific.

Why are fat cells so susceptible to temperature changes?

That's just the nature of fat cells, whereas

other tissues — such as blood vessels, nerves and muscles — are very resilient to temperature changes. The effect of high heat and extreme cold brought on by these two techniques on such cells is minimal. This is why VelaShape III™ and LipoCryo® have no side effects.

Besides heat and cold, are there any other non-invasive techniques to destroy fat cells?

Radiofrequency, ultrasound, microwaves — these are just different techniques, but they deliver ultimately one thing: heat energy.

How much fat can be removed?

As a general guide, your skin needs to be at least 1.5cm thick in order to have good tone. So that involves skin and a bit of fat to maintain a smooth skin texture after the process. Anything more than that can be treated.

Can visceral fat (the fat surrounding organs) be targeted?

No, these techniques are only for superficial fat that is above the body muscles. We are not able to remove visceral fat with these techniques. No current technology can go that deep, and there may be potential danger to the internal organs.

Would there be any ground-breaking non-invasive fat removal technology in the near future?

Anything new would be just a refinement of either of these two techniques. [🔗](#)