

# mesotherapy explained

Mesotherapy can be used to help reduce and eliminate localised areas of fat and cellulite. **Tara Casey** reports.

Have you ever wished those troublesome areas of fat would dissolve away? If you answered 'yes', the solution may be a treatment called mesotherapy. In actuality mesotherapy is a field unto itself and although the media is abuzz with talk of its ability to melt away fat, it is widely practiced in Europe and parts of South America as a means to treat various types of medical problems, especially sports injuries. The treatment of fat is only one aspect of mesotherapy. The term itself derives from the fact that the mesoderm, an embryological skin layer that forms many structures in the human body, is the target tissue and fat is part of the mesodermal layer.

The person most responsible for promoting the use of mesotherapy is Dr Patricia Rittes from Brazil. She actually coined the term 'Lipodissolve' for her procedure. Dr Rittes theorised that a drug used in Europe to lower cholesterol and triglycerides might be useful for treating localised deposits of fat. The drug contains two components.

One is phosphatidyl choline (PC), which is actually soy lecithin. That's correct – the same as in many food products, and it also exists in human bile to help emulsify fat. The other component is sodium deoxycholate (DC), which is also present in human bile and acts like a detergent to remove fat.

When the solution is injected into fat, there is a reaction that causes inflammation and destruction of the fat. The fat is then absorbed into the bloodstream and taken up by cells that can eliminate the fat. Dr Paul Rose MD, a dermatologist who has received training from Dr Rittes, was the first to publish a study that actually demonstrates the destruction of the fat and the appearance of the fat when observed under a microscope. His work is to be published in the *Journal of Cosmetic and Laser Therapy*. Other work at UCLA has substantiated that the chemicals utilised can alter fat deposits.

Mesotherapy or Lipodissolve is not for everyone. While it can certainly be used to eliminate or improve relatively small areas of fat, it cannot take the place of liposuction and weight loss for those who have very prominent areas of fat. Even with treatment, patients need to maintain good nutrition and exercise habits. The treatment often works well for the love handles, saddlebags, eyelid fat, abdominal areas, inner thighs, jowls, chin and neck.

A typical treatment takes only 20 to 30 minutes. The procedure consists of making several injections into each area. Usually eight to 12 injections into an area about the size of an index card are made. The needle sticks are made

with a tiny needle and there is minimal discomfort. If patients desire, an anesthetic cream can be applied before the procedure to eliminate even the discomfort of the needle sticks.

Following treatment patients will often feel a warm or slight burning sensation for a few minutes to perhaps a day or so. There is usually some swelling and redness in the area treated and typically some bruising. Patients are advised not to exercise for 24 hours but after that time they can resume normal activities. Some patients experience temporary nodule formation under the skin. This is when a patient may feel some firm, pea-sized or marble-sized areas under the skin after treatments. The areas are invisible at the surface of the skin and can take several weeks to even months to dissipate.

Results can be variable and most people need two to three treatments to see significant results. The treatments are often done at two-to-four-week intervals. Dr Rose follows Dr Rittes' protocol and stops treatment after the fifth session. Treatments can be resumed after six months.

Mesotherapy is not the answer to weight loss but it can be used to help sculpt and eliminate localised areas of fat. While it is not intended to replace liposuction it is a minimally invasive technique without many of the risks of surgery.

A recent technology approved by the FDA called VelaSmooth has gained a lot of attention regarding its results with non-invasive body shaping and smoothing. The device utilises both infrared and electrical energies combined with a vacuum suction for a localised thermal affect in the treatment area, resulting in an increased fat metabolism and collagen stimulation. Patients who have treatments with this device alone often report an immediate softening of adipose tissue. Over the course of the treatments, two a week for four to six weeks, there is usually a circumferential measurement change in the treated area as well as a general smoothing and firming of the skin. This results in a reduced appearance of cellulite.

There is talk among many physicians at the moment of enhancing the results achieved with mesotherapy alone and VelaSmooth alone by combining the two techniques. Anecdotally physicians who are using both techniques see larger circumferential reductions and more consistent firming and texture results with their patients.

More thorough research needs to be carried out on the cumulative effects of these two techniques. It has been proposed that certain mesotherapy cocktails may be more suited to the thermal activity of the VelaSmooth, and studies are currently underway. The latest technologies for fat and cellulite reduction and the combination of different synergistic techniques appear to be making headway in the new era of minimally invasive body contouring. **acsm**