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Mesotherapy

Mesotherapy is currently being touted as a nonsurgical, permanent method for fat removal and body contouring. It was first developed in France in 1952 to treat vascular and lymphatic disorders. However, it was discovered that depending on the different substances injected, mesotherapy might also be useful in treating chronic pain, hair loss (alopecia), bone and joint disorders and psoriasis. More recently, with the discovery that body fat can be reduced with the injection of certain substances, mesotherapy is widely being used to help with weight loss, cellulite reduction, body sculpting, wrinkle removal and facial rejuvenation.

Although the technique is widely used throughout Europe and South America, mesotherapy is a relatively new treatment option in the United States and New Zealand. It should be noted that the FDA has not approved any medications for use in mesotherapy or body contouring and that the American Society of Plastic Surgeons does not endorse the use of injectable treatment for any condition at this time (February 2005).

How does mesotherapy work?

The technique involves the injection of certain substances, via a very fine needle, underneath the dermal layer of the skin into the subcutaneous fat tissue in the area selected. The combination of substances injected depends on the concoction prepared by the practitioner or "mesotherapist" but may contain minute quantities of plant extracts, vitamins, enzymes, nutrients, hormones and medications such as vasodilators, non-steroidal anti-inflammatory agents, beta-receptor agonists and antibiotics.

For the treatment of cellulite and body fat reduction, two of the more common substances used are lecithin and isoproterenol. Lecithin is a compound found in human bile and needed for the digestion of dietary fats, whilst isoproterenol is a lipolytic agent that sets off a chemical reaction in the body to breakdown fat cells.

Mesotherapy usually requires a series of anywhere between 3 to 15 treatment sessions, administered at 2-week intervals.

Exactly how mesotherapy reduces fat remains unclear and further research using controlled clinical trials are needed to verify the mechanism of action, efficacy and safety of this technique.

What are the side effects of mesotherapy?

Because mesotherapy is administered directly to the desired area, it is believed that side effects are limited or reduced. Reported side effects of mesotherapy include:

- Immediate or delayed allergic reaction to the injected drugs/solutions
- Lecithin is known to cause inflammation and swelling
- Skin infections
- Pigmentation at the injection site
- Bruising at the injection site
- Ulceration and scarring at the injection site
- [Panniculitis](#)

Currently, it is unknown what happens to the broken down fat cells once they leave the targeted area and what effects the various substances injected have on the body's organs and tissues. Once again, further research into the safety of this technique is needed.

Mesotherapy - yes or no?

Although mesotherapy has been used for decades in Europe there is very little scientific and/or clinical evidence to support this technique. There also appears to be no standardisation within the practice in terms of what substances are used, quantities used and amount and frequency of injections.

The purported advantages of mesotherapy are its non-surgical approach, minimal or no pain experienced, fewer complications and less downtime. In terms of cost, the total cost of several mesotherapy sessions is similar to a liposuction procedure.

According to the American Society of Plastic Surgeons, liposuction is the only method that has been proven to safely and effectively remove fat.

Related information

References:

- [Mesotherapy: policy statement](#). American Society of Plastic Surgeons. February 2005
- [Mesotherapy: your alternative to cosmetic surgery and liposuction](#). Magaziner Center for Wellness & Anti-Aging Medicine

On DermNet NZ:

- [Liposuction in cosmetic dermatology](#)

Other websites:

Books about skin diseases:

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DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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