BODYWORK

Ever-newer non-invasive localised fat removal technologies offer alternatives to liposuction for removing stubborn bulges. **Clinical Aesthetics** checks them out.

CRYOLIPOLYSIS: PUTTING THE FREEZE ON FAT

Fat reduction technology harnessing frigid energy was born from research conducted by Harvard scientists who observed that babies and toddlers given iceblocks to suck to relieve teething pain lost their chubby cheeks. The baby fat had literally been frozen to death.

Fat cells are more sensitive to cold temperatures than other skin cells. Cryolipolysis freezes the lipids in fat cells which then slowly dissolve with no trauma or injury to surrounding tissues. For this reason, fat layer reduction becomes visible gradually over the course of two to six months.

Since 2005, introduction of suction-assisted cryolipolysis has become one of the most popular techniques for body contouring, with many studies supporting its safety, efficacy and reliability.

The latest entry to the Australian market in this category is CLATUU from Cryomed, which has several advantages over other technology: double applicator, a 3D cooling suction cup as opposed to conventional flat-plate technology, with faster baseline to endpoint temperature.

A pilot study was conducted with eight patients (of both sexes, aged over 18) over a four-month period, followed by post-treatment evaluation using standardised photography, calliper measurements, circumference tape measurement and patient self-assessment.

The validity of standardised photography was additionally rated by blinded dermatologists.

All patients were treated with a standard protocol at their nominated "problem" site(s) involving initial prior application of a matrix gel pad followed by application of either a flat or wing (curved) suction cup depending on the body location and contour.

One patient was excluded because of an unrelated traumatic injury to the shoulder requiring surgery.

All patients noticed a reduction in localised fat loss over the treated area, typically at two months but as early as one month. The lateral abdo was the most commonly nominated site followed by the inner thigh. The procedure was well tolerated with initial "suction' discomfort lasting for 5-10 minutes prior to subsequent cold-induced numbness. Five patients elected to have a repeat treatment two months after the initial treatment. Patients were highly satisfied with the outcome.

CRYOMED.COM.AU/PRODUCT/CLATUU

OTHER ENERGY TECHNOLOGIES

Radiofrequency devices drive controlled heat deep within the fat cells, subsequently destroying them. It can be used on any area of the body, from large areas like the abdomen to very small areas such as the chin. As well as reducing fat it tightens the skin by directing energy to target collagen. Examples: BodyFX, truSculpt, Viora Reaction

Ultrasound harnesses high-intensity, focused ultrasonic waves to cause mechanical (rather than induced by temperature extremes) destruction and leakage of fat cells. The energy penetrates the skin layers into the targeted fat without harming skin or surrounding tissues. Fat cells dissolve gradually over time. Example: Liposonix

Hyperthermic laser is a new addition to fat reduction energy technology; FDA-approved and clinically proven to reduce fat by non-invasively disrupting subcutaneous fat cells. It uses a 1060nm laser and can treat an anatomical area (even two areas at once) in just 25 minutes. Example: SculpSure

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