The Fat-Melting Frontier

Two of the newest fat- and cellulite-elimination techniques seem to have been lifted straight out of a sci-fi movie. Yet they have a chance at becoming realities.

- **The Injection Connection:** Mesotherapy—a series of 100 to 500 injections purported to eliminate cellulite and fat—is practiced by thousands of doctors in South America and Europe. Formulas vary but generally include a small amount of the heart medication isoproterenol, an analgesic to make the shots bearable, and various homeopathic drugs. After the application of a numbing cream, the shots are injected directly into the desired area (most commonly hips and thighs), Lionel Bissessar, an osteopath who has treated hundreds of patients in his New York, California, and Florida offices, claims that the injection liquefies the patient’s fat, which is then released into the body, where it’s burned as energy or excreted. A moderate degree of cellulite might call for a series of 10 to 15 multishot treatments ranging from $350 to $500 per session. Though mesotherapy, like any alternative medicine, is unregulated in the United States, it’s becoming more available as American physicians travel abroad for training. But many doctors warn that far more study is needed before such a procedure becomes accepted practice. “There doesn’t appear to be much in the scientific literature to support claims made for mesotherapy,” says Richard Logue, clinical professor of dermatology at the University of California, San Francisco. “But there are several reports of complications, ranging from infection to psoriasis.”

- **Riding the Waves:** If permanent, painless fat removal sounds too good to be true, the developers of two similar new devices, called UltraShape and LipoSonix, would like to have a word with you. The claim: A handheld nozzle emits a special frequency of ultrasound waves that liquefy the underlying fat when passed over the hips, waist, stomach, or other areas to be reduced—all without breaking the skin. It uses the same technology as familiar diagnostic ultrasounds but at a higher intensity, says Jens Quistgaard, chairman of LipoSonix in Seattle. The liquefied fat is then processed by the lymphatic system and liver and metabolized by the body. The skin has a rippled look after the procedure, but “in 10 to 14 days, it shrinks to fit,” says Ami Glicksman, a plastic surgeon at Sheba Medical Center in Tel Aviv and the developer of the UltraShape device. “Then you begin to see the actual results.” To avoid overloading the lymphatic system, only 500 cc (one pint of fat) can be dissolved at a time—one fourth of the amount removed in an average liposuction procedure—but treatments can be repeated indefinitely at one-month intervals, Glicksman says. Ronald M. Krauss, an endocrinologist at Children’s Hospital Oakland Research Institute in California, cautions, “That’s a few hundred grams—a lot more fat than the 60 to 80 grams that enter the body every day in our diet.” He says the “serious possible effects” could include fat embolism, an obstruction of blood flow caused by a droplet of fat.

With the recent approval from Israel’s Ministry of Health (which follows the same bioeth-

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