



M

Does the arrival  
of mesotherapy  
signal the demise  
of conventional  
contouring  
treatments?

By Linda Jacobson-Kossoff

# THE GREAT ELTDOWN

## IT'S THE NATURE OF TRENDS:

They start with a murmur, develop into a low, steady hum, grow into a healthy buzz and, ultimately, explode into popularity. Whether they remain over the long haul, however, depends upon their validity. Mesotherapy began murmuring in United States self-improvement circles a few short years ago. Today, the word is bandied about in mainstream media and frequently spotted in advertisements for wellness centers and clinics. Its proponents say we can settle back for a long stay. Others strongly disagree. As a spa professional, what do you need to know about mesotherapy?

First, understand that while mesotherapy is a relatively new idea in this country, it's not a new practice. The technique was formulated in 1952 in France by Dr. Michel Pistor to treat vascular and infectious diseases, osteoarthritis, chronic pain and generally compromised circulation. Its esthetic advantages—to treat cellulite, stretch marks, acne and even hair loss—were subsequently discovered by French practitioners. It's believed that today approximately 15,000 doctors throughout France and parts of South America are practicing mesotherapy, and there are still others offering the treatment in Switzerland, Belgium, the United Kingdom and, of course, the United States, where the estimated number of practitioners is 5,000—and growing.

When your spa clients—especially your body contouring clients—come to you with questions about mesotherapy, you must be ready to respond. Whether you're pro, con or on the fence, it's important to understand the unquestionable appeal of this treatment. What man or woman wouldn't be drawn to the idea of melting away unwanted fat, smoothing away bumpy cellulite or tightening a sagging jaw without the use of a scalpel and general anesthesia, and without a slow and painful recovery period?

## DISSECTING THE LAYERS

The principle behind mesotherapy is fairly simple. Tiny quantities of medication “cocktails” are injected into targeted areas in the mesoderm, or middle layer of skin where fat is located. The injected substances work to break up—theoretically, emulsify or “melt”—the fatty tissue in these areas, increase the fatty cell membrane permeability (making it easier for the fatty tissue to leave the cell), then increase microcirculation to help the tissue mobilize.

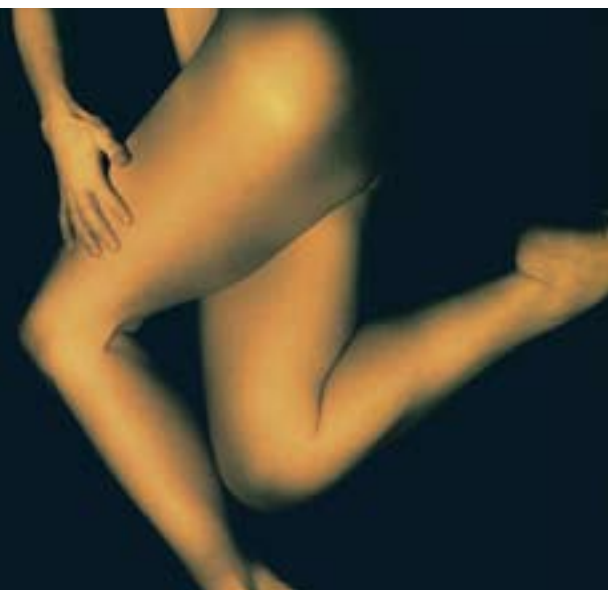
Let's analyze this principle in steps.

**1) The cocktail.** Perhaps the most controversial aspect of mesotherapy concerns the medication cocktail administered via injections. What's in the cocktail? This varies, depending upon the practitioner's preference, but it's always a combination of off-label medicines approved for other purposes by the FDA, along with plant extracts. Medical suppliers offer prepared cocktails that make it easier and safer for practitioners. “All of our medications come from licensed compounding pharmacies and are sterile,” explains Robert Pitera, M.D., Aesthetic Alternative, New York City. “If you over-inject you can't take it out, so I start with a base and then customize based on how the patient responds. I like to

WHO WOULDN'T BE DRAWN TO THE IDEA OF MELTING  
AWAY UNWANTED FAT OR SMOOTHING AWAY CELLULITE ...

... WITHOUT THE USE OF A SCALPEL AND  
WITHOUT A PAINFUL RECOVERY PERIOD?

BY INJECTING THE MEDICATION IN A TARGETED FASHION, THE PRACTITIONER CAN USE THE SMALLEST AMOUNT OF MEDICATION NECESSARY TO YIELD THE MOST EFFECTIVE RESULTS.



see some degree of warmth and swelling; if there's nothing, I know I need to adjust the medication."

Some of the ingredients found in the typical mesotherapy cocktail include:

- **Phosphatidylcholine.** This is a phospholipid that naturally occurs in the cell membranes of plants and animals. For mesotherapy, it's extracted from lecithins contained in egg yolk and soybean. According to "Mesotherapy for Body Contouring," a safety efficacy report submitted by plastic surgeons Alan Matarasso, M.D., Tracy M. Pfeifer, M.D., and the Plastic Surgery Educational Foundation DATA Committee, phosphatidylcholine is found in human bile and "acts to promote the emulsification of dietary fat." By injecting the substance, the mesotherapist seeks to reproduce this activity in targeted areas.
- **Isoproterenol.** This is a beta-receptor stimulant used in mesotherapy to increase natural lipolysis (decomposition of fats) in fat cells.
- **Aminophylline.** Originally used as an asthma medication, this chemical drug is believed to stimulate the release of fat into the bloodstream. Its effect is similar to that of caffeine.
- **Carnitine.** This amino acid is used to stimulate the fat cells to burn fat.
- **Procaine.** This is an anesthetic to minimize internal discomfort and enhance the absorption of other drugs with which it's injected.
- **Plant extracts.** Asian centella, ginkgo biloba and artichoke are just a few of the substances used to improve circulation, reduce edema and treat skin.

**2) The injections.** Needle-shy patients might wonder why, if these medications are so effective, they can't just be administered orally. Proponents explain that orally administered medications dilute throughout the body, thus requiring a much higher dose. By injecting the medication in a targeted fashion, the practitioner can use the smallest amount of medication necessary to yield the most effective results. Further, the needle used is so tiny that any discomfort is generally compared to that of an ant bite. However, it should be noted that the number of injections given per treatment can be as high as 200, so most practitioners use topical anesthetizing cream. Lance Ashworth, D.O., of Ashworth Medical in Ormond Beach, Florida, uses a cooling machine that completely numbs the areas being injected.

Mesotherapy injections are performed with the use of a battery-powered microinjection gun into which the practitioner inserts the syringe. This helps to control the depth of injections into the mesoderm.

**3) The results.** Mesotherapy practitioners report stunning success rates. Lionel Bissoon, D.O., a pioneer in the field, states that when properly administered, mesotherapy is a success on 90% of clients. Marion Shapiro, D.O., director of Mesotherapy Associates PC in New York City and West Orange, New Jersey, sees approximately 150 patients per week and reports that the procedure works "spectacularly" on 95% of them. Pitera's number is even greater: "I can improve 30% to 50% of the problem for 100% of my patients," he says.

Mesotherapists agree, however, that long-term

results rely on some patient cooperation. While the procedure may “melt” fat, the fatty acids must still be metabolized—and that’s where exercise comes in. “There has to be some lifestyle change with the procedure,” says Pitera. “If a post-treatment patient doesn’t make the effort to exercise and limit simple carbs, she’ll be in my office a year later saying, ‘I’m back where I was.’”

**4) The fee.** Shapiro generally charges \$400 to \$500 per session. She recommends 5 to 10 sessions for full results. Other doctors charge as much as \$1,500 per session. Pitera’s service fee ranges from \$350 to \$750 depending on whether there are multiple areas to be treated. The number of sessions varies as well. “Fat treatments take 5 to 10 sessions; cellulite is harder and we usually recommend 10 to 15 treatments,” he says.

### REDUCING RISK

Proponents of mesotherapy point out that in 50 years of practice, the procedure has never caused a reported death. However, there have been some problems. Last year the Centers for Disease Control along with state and local departments in Virginia, Maryland and Washington, D.C., reported prolonged skin reactions in 14 mesotherapy patients. It appears that the practitioner in question was unli-

censed and didn’t follow proper procedures. The incident caused the CDC to warn mesotherapists that they must follow basic rules of medical sanitation. Other side effects from mesotherapy have included atypical mycobacterial infections, skin atrophy, necrosis (death of localized cells or tissues) and eosinophilic granulomas (lumps under the skin that usually resolve on their own).

Pitera is vehement on the subject of safety. “We do a complete history and physical on each of our patients,” he says. “Everyone is tested for allergies of the medications used. Contraindications to the procedure include allergies, skin disorders, autoimmune disease and congestive heart disease. We even limit the dose and amount of time exposed to the topical anesthetic to avoid toxicity issues.”

The size of the patient is a factor as well, says Pitera. “We try to limit patient weight realistically,” he says. “You need to be 10 to 40 pounds over-weight. More than that, and it’s too difficult.”

Even in the presence of adequate screening and sanitation, however, other medical professionals are dubious about the safety of mesotherapy. “There’s no standardization of formula and technique,” says Matarasso, co-author of the aforementioned safety and efficacy report, clinical professor of plastic surgery and spokesperson for the American Society

## MESO-MORPHOSIS

The mesotherapy principle and technique is already taking various forms with scaled-down versions of the treatment:

- Beverly Hills Aesthetics in Beverly Hills, California, is offering a MesoFacelift as an alternative to Botox and fillers. Dr. Sam Assassa uses the treatment for patients in the 35 to 50 age range in a series of two to four treatments. Microinjections of antioxidant formulas are done on the face and are followed by a Glow Peel treatment.
- In one recent study, plastic surgeons have reported cautious optimism in the use of mesotherapy to reduce eye bags. Another study by Dr. Patricia Guedes Rittes, Clinica Patricia Rittes, São Paulo, Brazil, concluded that injection of phosphatidylcholine (commonly used in mesotherapy) into lower eyelid fat pads might “postpone or even substitute for lower eyelid blepharoplasty.”
- DermaWave ([www.dermawaveusa.com](http://www.dermawaveusa.com)) claims to provide “needle-free mesotherapy technology,” applying and transmitting mesotherapy solutions to the skin through electrical waveforms. Dr. Mitchell Chasin, aesthetic physician and medical director of Reflections, a skin and body center in Livingston and Bridgewater, New Jersey, touts this procedure as a viable alternative for patients who can’t tolerate conventional mesotherapy.



## ENDERMOLOGIE, LYMPHATIC MASSAGE AND BODY WRAPS CAN STILL PLAY A STRONG ROLE IN ACHIEVING A TRIMMER, SMOOTHER BODY.



of Plastic Surgeons. “There are different formulas, different standards used. The medications are FDA-approved but so is everything that goes into dynamite. We need to scrutinize the technique and the drug—right now there are too many variables.”

In addition to keeping with the laws and policies of the FDA, anyone administering mesotherapy needs to be either a physician or a medical professional in the presence of a physician.

### CONNECTIVE ISSUES

When it comes to body contouring, there appears to be room for a variety of methods; most medical professionals believe that spa treatments such as Endermologie, lymphatic massage and body wraps can continue to play a strong role in achieving and maintaining trimmer and smoother arms, legs, abdomens and buttocks. Just as plastic surgeons often refer their pre- and post-treatment patients to spa professionals, mesotherapists are prepared to do the same. “Mesotherapy can be one part of an arsenal,” says Pitera. “Endermologie, for instance, would be very effective after mesotherapy to help tone the skin.”

Still, a client or patient has only one body and so much money to spend, and that shrinks the economic pie. When it comes to mesotherapy, as with any service or product that stands to make a lot of money, it’s important to weigh any information carefully. There’s nothing wrong with supporting a practice that’s deemed both effective and financially rewarding, just as there’s nothing wrong with opposing a practice that’s deemed both questionable and unprofitable. But as the spa, wellness and health industries continue to overlap in widening proportions, it’s realistic to note that people are apt to support or denounce certain practices for economic reasons.

“I always take into account where the criti-

cism is coming from,” Pitera states frankly. “When someone has a financial gain and a procedure that competes with yours, it’s easy to say your procedure doesn’t work. I’d be concerned if a gastroenterologist complained, but I never hear that.”

Pitera’s remarks are no doubt spurred by the Policy Statement issued by the American Society of Plastic Surgeons on the subject of mesotherapy: *The American Society of Plastic Surgeons does not endorse the use of injectable treatment for any condition at this time. Further research into the safety and efficacy is needed. The seemingly painless approach to body contouring will always be appealing to many, but without scientific evidence to verify mesotherapy’s usefulness, practitioners and patients must be aware of the risks of the treatments and the lack of FDA approval of medications used in the injections.*

However, plastic surgeons have not discounted mesotherapy as a valid treatment in the future. Matarasso and colleagues’ study on 40 patients did find noticeable improvements in its subjects in the form of reduced body measurements and reduced appearance of cellulite. “In the months since our study, people have been researching and looking at the formulas out there and some are showing promise. No one here is claiming that mesotherapy is a substitute for liposuction,” the surgeon notes, “but in the right hands for the right indications and reasons, there may be a small role for mesotherapy.”

But mesotherapists see a much brighter future for their practice and so far, their patients seem to be on the bandwagon. “We treat everyone from runway models to students,” says Pitera. “This is a nonsurgical alternative to lipo and it’s usually at a fraction of the price. It appeals to everyone. And it works if it’s done right.” ●

**Linda Jacobson-Kossoff** is *DAYS SPA*’s managing editor.