

Medical Needling

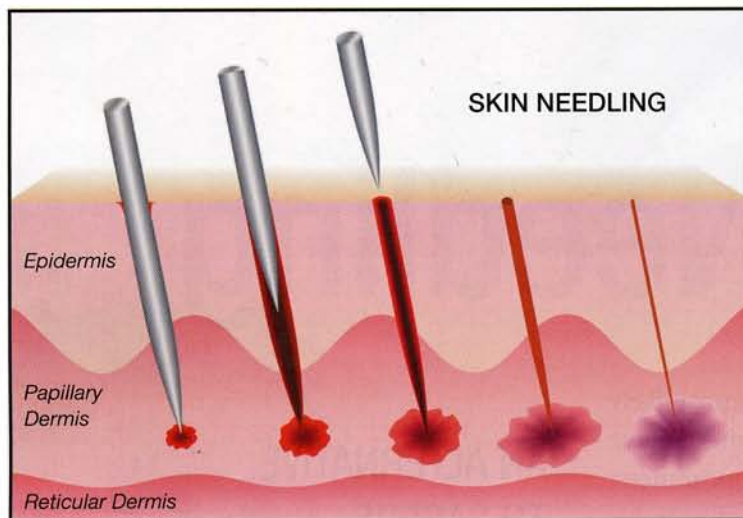
EVER SINCE the days of Cleopatra, and most likely long before, women and men (yes, men) have been in search of ways to enhance their appearances. History demonstrates the use of a myriad of potions, brews, spells, creams, acids and herbs to enhance beauty and reverse or limit the effects of aging.

From 2000 to 2004 there was a 43-percent increase in minimally invasive cosmetic procedures and a 16-percent increase in total cosmetic procedures, according to the American Society of Plastic Surgeons. There are no signs of this increase abating. In 2004, there were more than 9 million cosmetic procedures of which approximately 7.5 million were minimally invasive.

Modern technology has brought us ever-improving and less-invasive surgical techniques; even stronger skin-peeling agents; lasers, from CO2 to erbium and beyond; intense pulsed light (IPL); ever-evolving prescription and nonprescription topical products; and a new generation of injectables such as Botox, fat, collagen, hyaluronic acid, polylactic acid and calcium hydroxylapatite, to name just a few. And now, the new “kid” on the block is something called “medical needling.” ➤

**AN ALTERNATIVE
TO LASERS
AND DEEP
CHEMICAL
PEELS**

by Rob and Carol Trow



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What it is

Medical needling is a physician-performed medical procedure that has created great interest in the cosmetic community because of its efficacy, minimal downtime, ease of use, costs and patient satisfaction. It has been used successfully to treat fine lines, wrinkles, lax and photo-damaged skin; to reduce the appearance of stretch marks; and to improve acne, post burn and ice pick scars. It has also been used after liposuction to tighten skin.

The three-step approach

With medical needling, as with any medical cosmetic procedure, a three-pronged approach is needed to address the skin's conditions in a manner that produces measurable, sustainable and visible results. This is done through the

skin care professional who prescribes (used as a term of art) a home care regimen; licensed estheticians who administer professional, in-office, esthetic treatments; and physicians who carry out minimally invasive medical procedures. Working in partnership, this three-step method produces extraordinary, lasting results.

Home care protocol

Keeping in mind the three-step approach, a crucial part of any cosmetic procedure is to prepare the skin prior to treatment. Many physicians believe that the most essential elements of an efficacious skin care regimen are vitamins A and C, a brigade of antioxidants, growth factors, and polypeptides. These elements will reduce downtime and patient discomfort, and speed the recovery process. It is not only important to ensure that a client is using these ingredients, but it is imperative that the formulations, packaging and manufacturing process of a skin care product are designed to protect products so they remain active, free from bacterial contamination and that light and air do not biodegrade them.

Our environment (sun damage, pollution, nicotine, carbon dioxide, etc.) contributes significantly to the aging process. Topical skin vitamins go a long way in helping to repair and restore skin health. As described by internationally renowned plastic surgeon, founder and chief medical director of **Environ Skin Care**, Dr. Desmond Fernandes, these vitamins improve the overall skin function and result in thicker, smoother skin. Cellular structures become better organized, are more effectively bound together and more evenly distributed, which results in dramatically strengthened glycosaminoglycans and intercellular lipids. Fibroblast functionality improves along with increased collagen and elastin. Simply put, use of these vitamins, polypeptides and growth factors, pre- and post-procedure, yield improved and longer-lasting results.

Please note, however, that there is no one magical product or regimen. A skin care professional should develop a pre- and post skin care protocol based on a patient's particular skin condition and the type of procedure. Traditional skin care products available at your local beauty supply or drug store may not contain enough of the required active ingredients to produce the desired results.

Professional skin treatments

Once a client has started on vitamins A and C, and other elements essential to an appropriate skin care protocol, a series of professional treatments must follow suit to enhance skin preparation. The procedures must target the enhancement of skin health, with *penetration* as the operative word. The use of topical penetration enhancers, plus iontophoresis and sonophoresis, will go a long way to restore skin health and create an environment that adds to the success of any medical procedure.

One must ensure that the vitamins are not only chirally correct, but are ionized in the proper format to work effectively. Low frequency ultrasound, using cavitation, is a superior way to make essential vitamins penetrate skin, which rapidly restores skin health. A series of three to six treatments, pre- and post-surgery, adds great value for patients.

Collagen induction therapy

Once the skin is prepared, the physician can proceed with medical needling. The principle behind medical needling, also called collagen induction therapy, is quite simple. The medical needling instrument, a sterile roller with needles all around, is rolled across the skin, which causes thousands of micro wounds. These minute injuries to the dermis result in the start of the wound-healing cascade. The punctures begin the wound-healing cascade, which causes the body to produce its own collagen, even in peri- and postmenopausal women. Because the body produces its own collagen, there is no rejection. This is a medical procedure preformed with the aid of either a topical or local anesthesia. The patient will experience little or no pain. If treating the entire face, neck and décolleté, some physicians prefer conscious sedation.

Why it works

There are three primary phases to the body's natural wound-healing process. All take place in a predictable series of events according to Laurence Rosenberg, M.D., of the University of Alabama. The first is the inflammatory phase which is characterized by hemostasis and inflammation. Collagen is exposed at this stage. The second stage is proliferation where epithelialization, angio-
continues

It is the body's own collagen production that results in tightened skin, less fine lines and wrinkles, and a softening and reduction in scarring.

