

## What is Microneedling?

**INTRODUCTION** to Microneedling (MN): Microneedling is the insertion of very fine and short needles into the skin usually to either increase collagen production in the skin or to increase transdermal absorption of cosmetic or medical applications. This is usually achieved through the use of rollers<sup>1</sup> or stamps with up to 200 micro needles attached. Microneedling (MN) is very shallow needling of the skin. The needle depth is 0.5 mm or less for most areas and slightly deeper to breakup dark spots or scar tissue. This treatment can be done in most areas of the face and neck or hands plus scar tissue almost anywhere. It is also very useful to clear up acne or acne scars and for restoring head hair that has thinned.

Microneedling has been extensively researched, because it is a useful means of drug delivery for the pharmaceutical industry and is an effective and rapid way of inducing collagen production in both scarring and simple anti-aging treatments. For this reason, there has been a large body of research into its effectiveness<sup>2</sup>. There is so much evidence already proven that it is hard to argue about the potential effectiveness of microneedling to decrease wrinkles, improve skin tone and scar tissue as well as breakup and resorb dark spots .

**THEORY** of MN: The surface layer of the skin is the epidermis. It is 0.1- 0.15mm thick. At the bottom of the epidermis are stem cells, at the 0.15mm level. Below this layer is the dermis. Fibroblasts in the dermis at 0.5mm depth produce collagen. BIOMEDICINE has extensively researched the rejuvenation/healing effects that can be produced by mildly injuring skin tissue. This generates a 'controlled wound' that promotes increases in both epidermal STEM CELLS and the deeper, dermal, COLLAGEN. In Oriental Medical Theory microneedling is recognized to significantly increase fluid circulation and 'vent' heat. Cosmetic acupuncture needling with standard acupuncture needles has a long history of effectively 'lifting' sagging tissue or organs. But microneedling, a modern technique, generates enhanced cosmetic results for local wrinkles and these effects last much longer.

**HISTORY** of MN: At first, microneedling was done with deeper penetration of needles to up to 3.0 mm. This required a sterile clinical environment to manage the bleeding and some form of numbing support to manage the pain. This has changed dramatically in the last ten years. At least one study has shown that even with very long needles, collagen induction only takes place to a depth of 0.6mm in the skin. Another study has shown that a roller with 0.5mm needles is actually more effective than longer 1.5mm needles at increasing transdermal absorption. This and practitioner experience have lead to the use of shorter needles with very little blood being produced. Performing microneedling in this way requires a less strict sterile environment and little or no anesthetic. This has allowed acupuncturists, a profession specializing in needling, to step up as the ideal providers of the technique of microneedling. Microneedling is now commonly used to assist scarring, particularly acne scarring as well as gynecological scars, visible signs of aging, stretch marks, cellulite, and hair restoration. In addition, it can be used on a wide variety of areas of the body. The face is the most common, but it can also be used for signs of aging on the hands, décolletage, arms, breasts and lower body.

Acupuncturists are trained to use the 0.5mm depth settings which, as mentioned above, research has established provides the best results. At this depth no anesthesia is required. Swiss Apple Stem cell serum or other Chinese herbal serums for specific problems are applied during and or after the microneedling.

Acupuncturists can provide additional acupuncture to help the health of the 'whole' body during these sessions. This is customized to your specific health challenges and it is included with the cost of the session. Additional acupuncture sessions can be scheduled in between the once a month microneedling appointments to further enhance your cosmetic goals and promote general health. These additional treatments are offered at a significantly reduced rate for the duration of the MN series.

How does microneedling enhance and restore skin health? It provides micro (tiny) holes for absorption of topical serums used to promote healthier skin cell growth. And the wounding generated by the tiny needles **'induces'** the growth of collagen and new skin tissue. Both of these effects 'boost' collagen to lift and fluff

sagging flesh as well as break-up dark spots. Acupuncture with its longer needles can further enhance the micro treatment for deep wrinkles by needling *under* them to provide an effect called 'subcision'. This breaks up the adhesions in the tissue in the bottom of the wrinkle trough; thus allowing the sunken tissue to float back up to the surface in response to the microneedling and serum applications. The between MN acupuncture treatments are especially helpful for deep wrinkle recovery and sagging areas that need to regenerate firmer flesh.

You may have noticed some 'unique' effects from microneedling. In addition to the short-term findings listed above; the effects generated by microneedling have been research proven to last 3 to 5 years. This duration is not available from other noninvasive cosmetic treatments like Botox. And, Botox can't help with the wrinkles on your décolletage or hands!

**Protocol:** The treatments are additive, so, microneedling is recommended once a month for a series of 3 to 6 treatments. Skin rejuvenation generally does not begin for at least 48 hours. And you may not see results until two weeks after a treatment. The full cycle of controlled wound healing takes three to four weeks so additional results may emerge all month. Most people see a big change within 3 weeks of the first treatment but some patients have poor results. Lifestyle and diet upgrades plus Chinese herbs for health problems may enhance the results of microneedling on the face. No one can guarantee results. Adding Chinese herbs and weekly acupuncture treatments also enhances the extent of results.

**Tools Used:** 18,000 RPM Micropens from ACUMICRO with individually packaged, disposable, gas sterilized, needle tips. These newest generation pens have twice the speeds of most other company's microneedling pens. Faster RPMS makes for more comfortable as well as more effective treatments.

**Microneedling Session:** Duration: 30-45 minutes. Begins with serum selection for your specific skin problems with skin testing to rule out sensitivity. Then microneedling the areas of concern. Ends with cooling mask and body acupuncture points, customized to your unique needs. Be sure to arrive 10 minutes early for your appointment so you are relaxed and can enjoy the 'spa type' of appointment.

There are some contraindications, general PRECAUTIONS and specific instructions that will be provided to prepare you for a MN treatment.

*FOOTNOTES:*

<sup>1</sup> If Microneedling is not in your budget, another tool available for home use is called a 'dermaroller'. It penetrates just half the depth of MN and so has milder restorative impact. Used with high quality, natural serums that promote restorative processes; it too has visible results. Home (or clinic MN) treatments should be limited to once a month so the skin has time to grow through its turnover cycle. Do not press hard and generate bleeding trauma, this does not improve results. And be careful to sterilize your derma-roller after each monthly session.

<sup>2</sup> Some researched findings include:

- An average 206% increase in collagen and up to 1,000% increase in collagen production after a single treatment.
- A possible 140% increase in epidermal thickness.
- Patients described an average 80% improvement in post burn scars with micro needling.
- Some forms of microneedling can increase the absorption of some products through the skin by up to 10,000 times.

Research data and the majority of the information in this article was gathered from a professional class on 'Microneedling for Acupuncturists', taught by Josh Nerenburg, LAc. in March of 2022. He owns *San Diego Cosmetic Acupuncture* and teaches microneedling to acupuncturists.

FYI- Swiss Apple stem cell serum has been shown to increase human stem cell production by 80%.

Reference: 'Life Extension Magazine', November 2008

See also my patient education handout for details on Chinese Herbal serums for specific cosmetic therapies.