

# Micro-Needling with Epidermal Infusion Therapy

## What is Automated Micro-Needling?

Automated Micro-Needling (also known as Collagen Induction Therapy or CIT) is a new innovation in aesthetic medicine for the treatment of fine lines, acne scars and improvement of the skin's overall appearance. CIT or Micro-Needling works by stimulating the immune system and wound-healing mechanisms. As the micro-needles penetrate the skin causing micro-wounds, it triggers an intense inflammatory reaction that begins a cascade of subsequent reactions.

A Micro-Needling intrusion is caused by tiny surgical needles. The skin's nerve receptors and defense mechanisms sense these fine needle intrusions as a specific type of injury and heals accordingly. During the healing process, skin cells release growth signals to undifferentiated cells otherwise known as skin stem cells. These signals also stimulate rapid growth of new fibroblasts and other wound repairing cells.

Many cell types including new fibroblasts rush to close the wound by migrating to the point of intrusion. These new fibroblasts then transform into collagen fibers which integrate with existing collagen in the upper dermis. The new collagen fibers thicken the skin, filling in atrophic scars. The Micro-Needling procedure creates thousands of micro wounds in a treatment area. As each wound induces new collagen formation, it forms a new, healthy collagen layer in the treatment area. This reaction is called collagenesis.

The wound healing process also stimulates rapid growth of endothelial cells (the thin layer of cells which line capillaries and blood vessels). In turn, this creates new capillaries for better blood supply to the skin. This reaction is called angiogenesis.

During the Micro-Needling procedure, tissue damage is unlikely because the needles are very fine and thin. In fact, skin integrity actually remains intact even though the skin reacts as if it had been "injured." The tiny wounds caused by the micro-needles are repaired and close very quickly. No tissue lesion can be detected, infections are rare, and there is nothing to repair. Micro-Needling can be done on face, neck, décolleté, arms, hands, legs, abdomen and back. The patient resumes regular activities almost immediately.

#### What are the Benefits?

The benefits of Micro-Needling are a reduction in the appearance of fine lines and wrinkles, younger-looking skin with fewer signs of aging. Micro-Needling also has a positive effect on hyper-pigmentation as well as on hypo-pigmentation, acne scars, traumatic scars and stretch marks and generally creates a fresher appearance or glow to the skin.

## What is the downtime?

Immediately after the treatment you will notice a bright redness to the skin with swelling. The total healing time depends on the depth of needles used and the number of overlapping passes your skincare professional performs. On average, patients are red **up to 2 to 5 days**. Some patients heal completely in as little as 24 hours.

#### When will I see the results?

Patients notice an immediate "glow" to their skin. Visible changes to the skin develop over the course of several weeks. Results continue to improve up to 6 months after the treatment as collagen production continues.

## How many treatments will I need?

It is recommended for most patients to receive a series of 3-4 treatments spaced about 6-8 weeks apart. For patients with deep wrinkles, advanced photo-aging, stretch marks or acne scars it is recommended to receive 6-8 sessions at 6 week intervals. Then, once per year to achieve optimal results. Treatments for scars can vary depending on the age and severity of the scar. Everyone's skin heals and repairs at different rates.

## **Cold Sores**

If you have a history of cold sores, please let us know so we can call in a prescription for you to your pharmacy so you can pre-treat before your Micro-Needling treatment.