

THE AGING PROCESS

Skin cells are regenerating until the average age 25, which is why it is normal to see the visible signs around the age of 31-31 years old Aging occurs when free radicals attack and damage the cellular structure.

The dermis has less collagen, elastin and hyaluronic acid



epidermis is thinner and wrinkled

The layer of subcutaneous fat is thinner

GLYCATION

- **Glycation** is where the glucose in your bloodstream attaches to proteins (such as collagen) and **degrades collagen and elastin** in the dermis by making them link.
- **Cross linking** is a process in which undesirable bonds are formed in the presence of oxygen. These chemical bonds can be between proteins, as in crossed-linked collagen.
- This linking inhibits/prevents their ability to slide over each other causing them to **harden and lose elasticity** - the same way rust weakens and degrades metal. This is a huge factor in skin wrinkling.
- **Think of it like scaffolding on a building.** If the tension and strength of the scaffolding is compromised, if it rusts and weakens, if it becomes unable to bear loads and if there's no flexibility or elasticity when tension is applied then the scaffold begins to bend, sag, crack and eventually collapse.
- **The plasma treatment repairs and rebuilds this scaffolding.**



THE SCIENCE BEHIND PLASMA

- Plasma is the 4th state of matter alongside liquid, solid and gas.
- The *Plasma Device* converts electrical energy into electrostatic energy to create plasma.
- Inside the device, an electrical discharge is made by introducing voltage between the two electrodes separated by a “dielectric barrier.” As the charge collects on the surface of this barrier; a gaseous arc of ionized plasma is created.
- The plasma energy we create transfers rapidly to the skin’s epidermal layer. Simultaneously, it heats and disrupts the deeper dermal structure via thermal conduction.
- In order to fix the collagen and increase the mechanical properties of the scaffolding, the Plasma procedure kickstarts the process of collagen production, alignment and cross linking- all critical to the process of reducing lines and wrinkles.

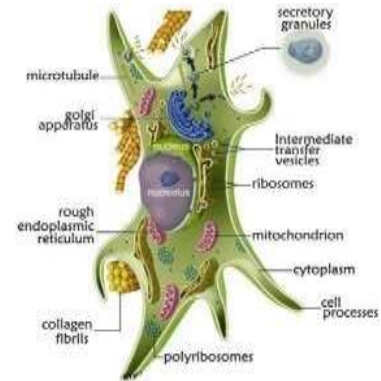
WHY DOES CAUSING TRAUMA TO THE SKIN CAUSE SUCH INCREDIBLE RESULTS?

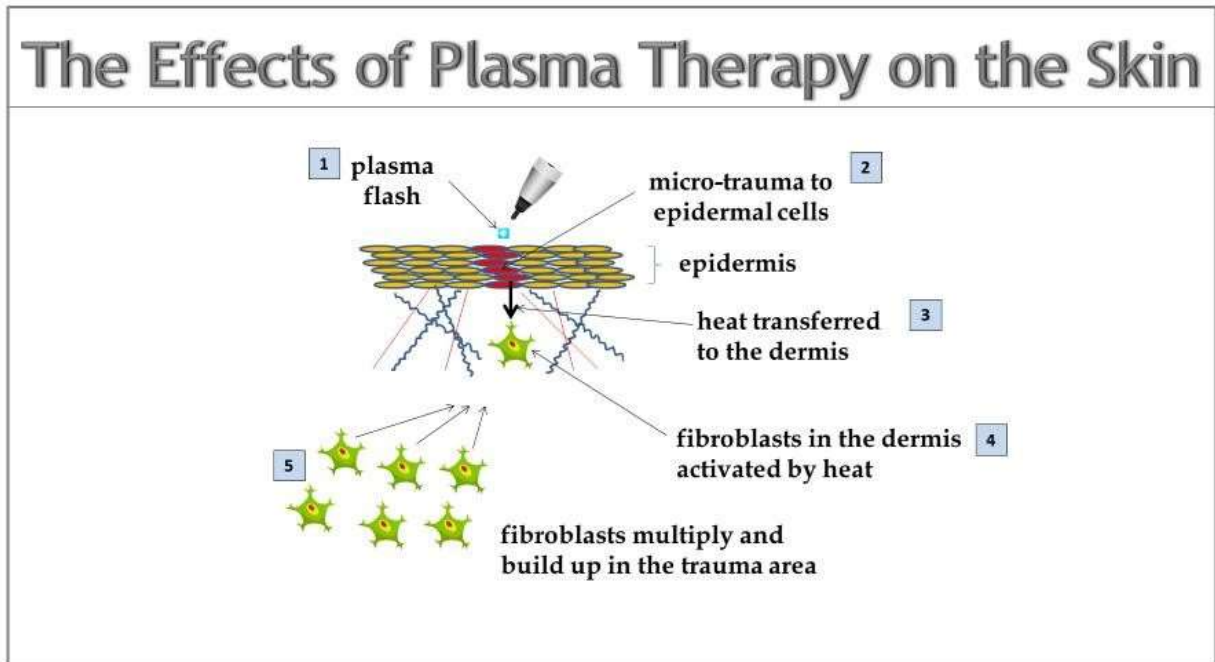
The Plasma device specifically targets “fibroblasts” – the most common cells of connective tissue and those which synthesize the extracellular matrix and connective tissue fibers (including collagen and elastin fibers). In adults, fibroblasts rarely undergo division within connective tissues unless they’re stimulated by the wound healing process or an inflammatory response. We do exactly that with the Plasma device- when the body recognizes that the skin has been compromised.

That’s why we call it “fibroblasting”

We target fibroblast cells with precision heat and trauma. Inflammation starts minutes after these micro-injuries occur which increases blood flow to the area. Next, the fibroblast cells spread inwards towards the trauma, leaving behind collagen and elastin cells.

Increased levels of Type III Collagen are formed and the fibroblast cells continue to produce new collagen for weeks and months after the trauma. They also begin the process of alignment and cross-linking (part of the process to reduce fine lines and wrinkles).





JUST HOW MANY PLASMA TREATMENTS WILL BE NEEDED FOR EACH CLIENT?

This depends on the condition and age of your client's skin and the results they expect/desire. You should never promise one treatment will always be enough to achieve their desired result- **it is always better to under promise and over deliver!** Some low to medium intensity treatments (like a Plasma skin rejuvenation treatment or 'Plasma Peel') are entirely designed to be delivered over a course of treatments. Plasma treatment results can differ from client to client- some get optimal results after a single treatment while others need 2 or 3 treatments to experience the best possible results. Some heal in 3 days and others take longer. In addition, pain tolerance will differ for each client.