

# Cold Laser Facial Therapy

## WHAT IS MICRODERMABRASION?

Microdermabrasion is a gentle yet deep exfoliation that produces four types of effects:

- 1) A direct action of smoothing the skin by eliminating the residues from dead cells.
- 2) The action of the microdermabrasion combined with laser therapy allows for deeper and more effective penetration of skin product.
- 3) Microdermabrasion stimulates metabolic processes resulting in a firmer, more contoured and supple complexion.
- 4) Microdermabrasion uses a vibration technology on the surface of the skin allowing for lymphatic massage, thereby stimulating detoxification and drainage of toxins from the dermal layer. By removing the toxic impurities from the dermis, more debris is removed and more oxygen and nutrients can infiltrate the skin to stimulate healing of acne blemishes, blackheads and scars, rosacea, skin pigmentation, sun damaged skin and improve the tone and texture of the skin. The same process improves the metabolic effects of skin cells allowing for increased collagen production, thereby reversing the aging process and resulting in a dramatic reduction in the appearance of pores, fine lines, wrinkles and sagging skin.

Unlike other microdermabrasion technologies, the equipment used at Rosemary Heights Clinic allows for a painless and surprisingly pleasant and relaxing experience.

# WHAT IS COLD LASER THERAPY?

Photo-laser therapy stimulates cellular regeneration and collagen production and is applied in a step-by-step process after microdermabrasion. It is the final step in ultimate anti-aging and healing capability, producing a smooth, radiant, clear and glowing complexion. Rosemary Heights Clinic uses only cold laser technology, which generates a low power “cold” energy which does not cause thermal changes in tissue. It applies a stimulating effect rather than a destructive one. Hot lasers are used only in the medical field because of their ability to cause thermal changes and potentially destroy tissue. Cold Laser is safe even if used for long periods of time. It combines electric current (high frequency) and light energy with the exclusive feature of selective ionization on products with biochemical and photo energy properties. A specific phyto-active ingredient will be chosen for your specific skin type and skin care needs (acne, rosacea, anti-aging, scars, age spots, stretch marks or cellulite).

Three different wavelength lasers are used at Rosemary Heights Clinic, each of which have certain therapeutic characteristics.

**Red Laser:** effective for reducing wrinkles, fine lines, rosacea, eczema, psoriasis and lifting sagging skin

**Blue Laser:** effective for sun damage, acne, eye bags, blemishes, and lip plumping

**Green Laser:** effective for treating broken capillaries, age spots, scars, and wounds

# HOW MANY TREATMENTS ARE NECESSARY?

The results obtained are instantly visible from the first treatment, with progressive improvement as cellular tissues renew at overnight. Treatments are typically performed 1x/week

for the first 4-6 treatments and maintenance is recommended every 4-8 weeks depending on your desired outcome and goal of treatment. A typical treatment session is for 60 minutes.

## **ARE THERE ANY SIDE EFFECTS?**

Because the technology used at Rosemary Heights Clinic does not utilize crystals or thermal laser/heat application, and because each treatment is customized to suit your individual skin care needs and desired therapeutic outcome, there are no side effects to treatment and it is safe for all skin types including fragile and sensitive skin. Minor redness may persist for 2-6 hours post treatment depending on your degree of skin sensitivity. Immediately after a session, most of our clients will continue on with their day with a simply radiant and glowing complexion, without any down-time at all!

Use of sunscreen post treatment and between treatments is highly recommended and should be a part of your daily skin care routine (with or without treatment) to prevent damage from harmful UVB and UVA rays. While receiving treatments, we advise you to avoid or minimize direct sunlight exposure as much as possible to optimize your results. Your technician may make additional recommendations for at-home skin care maintenance between treatments.

The entire treatment is a very pleasant, relaxing and rejuvenating experience – don't be surprised if you fall asleep during a session!

## **HOW COLD LASER WORKS?**

When the body has an injury the cells are damaged and fail to function within normal parameters. Cold Laser (also called Low level lasers) penetrates deeply into the skin and works by restoring this abnormal cellular function. Rosemary Heights Clinic uses a non-heat producing light laser, which is locked

at a specific wavelength that is optimal for treatment and can penetrate deeply into tissue.

The biological effects of cold laser therapy have been shown to significantly accelerate and enhance the body's natural defense and repair abilities when injured. By reducing the duration of inflammation as well as enhancing specific repair and healing process, cold laser therapy has been proven to provide pain relief, reduce damage due to the injury and loss of function. It enables the body to have a more rapid repair and stronger tissues once healed. Physiologic effects include improved metabolism, circulation and tissue healing.

## **THE SCIENCE OF LIGHT (LASER) THERAPY**

“Light therapy is not a new concept. The sun's rays cause a seed to sprout through RNA and DNA changes. The sun's rays are full-spectrum light, which means many wavelengths are present (400-800 Nanometers), but only one specific wavelength, or frequency, causes the seeds to germinate. In 1924 Bose and Einstein, great men of science, predicted the Laser. Laser is an acronym for Light Amplification by Stimulated Emission of Radiation.

Human cells, tissue and organs have specific energy frequencies that regulate important cellular functions such as protein synthesis, cellular division and communication. Quantum physics helps to explain that a cell's living matrix must produce coherent or laser-like oscillations or unique resonances. These resonances serve as signals that integrate processes such as growth, injury repair, immune mediation and the overall functioning of the organism. Each molecule, cell, tissue and organ has an ideal resonance frequency that coordinates its activity. Using certain laser frequencies can alter or balance the body's systemic defense and repair mechanism.

In the past few decades, it has been shown that many pathologies manifest themselves as chemical imbalances with the underlying cause being electromagnetic. By applying a specific frequency, normal function and balance can be restored.

Physicists Schawlow and Townes brought the laser into modern medical arenas, where they are being used for a variety of treatments. Most of the lasers used in the medical field have been High Frequency Hot Lasers, which are catabolic (destructive) in nature such as the ones used in eye surgery. Cold Lasers are anabolic, or regenerative in nature. Laser therapy is based on photochemical and photobiological effects of the cells and tissues. With laser light, cell functions are stimulated, especially the increase of a cells ATP (energy). This increase in ATP synthesis is associated with increased cell metabolism; increase collagen synthesis, stimulation of DNA formation, improved immune system function and increased new formation of capillaries. The laser also has been shown to increase neurotransmitters (serotonin), to increase enhance tissue regeneration through increasing fibroblasts and keratinocytes, to increase antioxidants and to accelerate bone and scar healing. Cold laser uses coherent light, which is light traveling in the same direction at the same wavelength. The human cell functions at 630-640 nanometers (NM). It has been documented that DNA replication occurs at 635 NM, and cellular phagocytosis (cellular housecleaning or detoxification) happens at 634 NM, and that injured neurons (nerve cells) heal best at 635 NM. Most significantly, research shows that every cell has a least three kinds of basic receptors for neurotransmitters (i.e., serotonin, dopamine), hormones (insulin, thyroid, estrogen) and photoreceptors. The laser affects the human cells through the photoreceptors, causing a physiological effect. Nerves, for example, are affected by the temperature, the pH within the cell, the oxygen available, and the amount of ATP (a cellular unit of energy) available. The laser stimulates ATP production and oxygen at a cellular level, which activates enzymatic

cascades that help the cell to detoxify itself. These changes result in activating cells or nerves and setting up an environment in which they function best.