

## Photorejuvenation

With the passing time, the skin gets an aging appearance, influenced by several factors. The age signs and the solar damages are more visible on the people's face. There are several kinds of treatments to improve these conditions, from simple creams and other products, to peelings and even surgeries. The observed tendency is the use of combined treatments. The clinics tend to present several treatments. This way, the doctor will be able to suggest the best treatments for each situation. Among these treatments is the LASER and the INTENSE PULSED LIGHT technology.

A new treatment has been offered to treat several situations of the facial aging: Photorejuvenation.

### Photorejuvenation with the Intensed Pulsed Light

Photorejuvenation with the INTENSE PULSED LIGHT is a new technology called "not ablative", that allows to correct several lesions of the facial and body skin as fine wrinkles, facial aging, aging of the hands, of the back and neck, facial vases, rosacea, senile stains, solar damages, changes in the texture of the skin, under eye circles, poikiloderma, stains and pigmentations.

The IPL technology (INTENSE PULSED LIGHT) is a result of the studies of the application of LASERs in Medicine and Surgery.

We use the American Lumenis integrated equipment Quantum, which is versatile and uses high technology, emitting both LASERs and IPL. Both emissions are used in the photorejuvenation process.

It is a technological progress called not ablative treatment, because it doesn't remove skin layers, but treats the lesions on the surface and in the deep layers of the skin, improving the facial, the neck, the chest and the hands skin.

It can be used in a variety of anesthetic benign conditions of the skin. The effect is obtained by light emission with certain physical characteristics, that act on the red and on the dark colors. The red of the vases and the dark color of the superficial pigmentations are reached, while the normal skin is protected by having smaller reaction to the light and by a cooler system. The same physical characteristics make the light reach the depth of the dermis, positively altering the collagen.

### The Action of the INTENSE LIGHT PULSED in the Rejuvenation

The INTENSE PULSED LIGHT acts in two levels of the skin, deep and superficial. The superficial application promotes a significant reduction of stains as melanosé, freckles, hyper pigmentations, senile stains, most due to exposition to the sun. The small vases of the nose and of the face are also treated with this technology, as well as the red stains produced by the action of the Rosacea. Besides the face, the hands, arms, trunk, chest and neck can be treated. The deep application stimulates the production of collagen, because it transmits energy to the deep tissues. The irregularities of the tissues, fine wrinkles and other marks are softened.

## The Treatment

For this treatment, the patient has to avoid exposure to the sun for 30 days before the procedure and, during this period, it is essential to use sunscreen.

The patient's eyes, the eyes of doctors and of the assistants are protected from the light. A cold gel is applied on the area to be treated. The crystal applicator is put close to the skin. The cooler and the crystal start working. Light Pulses of high energy with physical characteristics that are under completely controlled are emitted. As a result of each pulse, the patient can feel a little but acceptable sensation, as if an elastic band hit the skin. For the most sensitive patients, an anesthetic cream can be applied to the skin, but it is rarely necessary. After the application, a light redness can appear. A cream is applied to the skin after the procedure. Sunscreens are applied and the patient can immediately return to his normal activities. The session takes 20 minutes. The patient has to avoid the sun for 2 to 3 weeks after the application.

An average of 6 sessions are necessary, in intervals of 4 weeks between the sessions. The results progressively appear after each application.

The problems that can have solution with the INTENSE PULSED LIGHT

### Male and Female Facial Aging

It is possible to obtain an enhancement of the facial aging appearance, reducing stains and improving the surface of the skin. The INTENSE PULSED LIGHT acts on the dark and red pigments of the skin. It eliminates vases and stains and it enhances the dermal collagen. The treatment can be associated with other procedures of medical aesthetics with good results.

Male and Female Facial Photoaging caused by the exposure to the sun.

Photoaging, action of the sun on the natural aging of the skin, cause stains and degeneration of the dermis, with consequent emergence of wrinkles, flabbiness and furrows. Photorejuvenation has a positive action on these problems

### Roughness of the skin

The roughness of the skin is a consequence of superficial alterations, that are well assisted by Photorejuvenation with INTENSE PULSED LIGHT

### Fine Wrinkles

The fine wrinkles should be treated with techniques of aesthetic medicine, like Botox, fillings substances, peelings, bioplastic, but they can benefit with the treatment of the INTENSE PULSED LIGHT

### Alterations of the pigmentation

As the INTENSE PULSED LIGHT acts on the pigments and the dark color, the stains caused by the Photoaging are the best indications of the treatment.

## Vases

The LASER of Nd: Yag has the best results on the vases of the face caused by rosacea or aging. However, the very small vases that give a red coloration to the face, and that are hardly identified, are better treated by the INTENSE PULSED LIGHT.

## Stains on the hands

The senile stains of the hands get better with the INTENSE PULSED LIGHT treatment. Also an enhancement in the quality of the skin is observed.

## Rosacea

Rosacea is a condition that creates a redness in the face and some vases that are identifiable and other small ones that only give a red diffuse coloration to the face because they are very small. The INTENSE PULSED LIGHT can successfully treat this consequence, although it cannot act on the cause of the problem, which chronic and it should be treated accordingly.

The episodes of Flush, although they get better, don't totally disappear. Nd: Yag is used for the most visible vases and the INTENSE PULSED LIGHT for the most diffuse redness, where the vases can't be well identified.

## Freckles

They are pigmented stains and they can get better with the INTENSE PULSED LIGHT

## Poikiloderma

The Civatte' s poikiloderma is a combination of atrophy of the skin, vases and hyper pigmentation. It is a process that is linked to the solar exposure and a sign of aging of the skin. It is located in exposed areas, as the neck and the chest. The INTENSE PULSED LIGHT acts on all of the consequences of the poikiloderma, resulting in a very interesting improvement of the problem.

## Melasma

It is a pigmented lesion and the lightest cases can be enhanced with the application of the INTENSE PULSED LIGHT, although for this condition, other treatments are preferred.

## FAQ

Can I undergo the treatment after being exposed to the sun or when I am tanned?

No, because the tan darkens the skin, and the LASER can confuse the dark skin with pigmentations. The patient has to avoid sun exposure 30 days before and 15 days after the procedure.

Does my skin change a lot after the treatment?

No, because the technology allows the patient to return to his activities immediately after the treatment..

Can patients with brunet or black skin use this treatment?

Patients with dark brunet or black skin cannot use the treatment with INTENSE PULSED LIGHT. However, the patients with light brunet skin can perform the treatment. An appointment with the doctor will determine the best indication.

Why are several sessions necessary?

Dividing the treatment in several sessions results in a gradual enhancement of the skin, while the patient does not need to interrupt his normal activities. Smaller amounts of energy are applied in each treatment reducing risks and allowing that the procedure to be carried out without anesthesia. The results in each session of the treatment will give the final result.

## **What is 3D Skin Rejuvenation™?**

**Cutera™**

All patients present with different needs. Imperfections at the surface, deeper in the epidermis or at the deep dermis are common. Unfortunately, as we grow older, our imperfections turn into multi-layered problems - solar lentigines, poikiloderma, vascularity, rosacea and wrinkles.

Cutera XEO™ takes a three-tiered approach to skin rejuvenation — resulting in noticeably improved skin tone, texture and tightness. Separately, each clinical application provides a powerful solution for the most in-demand, fastest-growing procedures. Together, they offer your patients flexible, effective skin rejuvenation solutions.

### **TITAN® - Infrared Light 1100-1800nm**

Titan is the first tailored infrared light source for sustained deep dermal heating with the most frequent use on the face, submental area, neck and abdomen.

About the Infrared Wavelength

The broadband spectrum of 1100 to 1800nm was selected and tailored for ideal water absorption and allows uniform and even heating of the dermis to produce volumetric heating. Volumetric heating, 1-2mm deep, is necessary to produce the desired clinical result and requires sustained temperature increase in the dermis. Further, the infrared light-based approach provides uniform consistent heating independent of skin structure, i.e. dermal thickness or fat layers.

Advantages of Titan

- Deep dermal heating with new collagen formation over time

- Precise placement of heat in the dermis with continuous epidermal cooling
- Minimal discomfort during treatment
- Can be used on all skin types including tanned skin

## **Laser Genesis™ 1064nm Nd:YAG Laser**

Laser Genesis is a non-ablative photorejuvenation procedure that provides multiple benefits. Laser Genesis addresses common skin conditions due to the aging process and the result is a healthier, younger-looking complexion. Clinical effects such as reduced wrinkles, diminished pore size, reduction in erythema and improved skin texture are all possible with this technology.

### About the 1064 Nd:YAG Wavelength

The longer 1064 wavelength combined with high-peak energy, microsecond pulses and high repetition rates is ideal to target multiple layers of the dermis. These synchronized features deliver a patented technology that match the thermal relaxation time and are essential to rejuvenate the skin.

### **Advantages of Laser Genesis**

Through gentle heating of the dermis, fine structures such as the microvasculature are targeted and ultimately Type 1 collagen is formed with cross-linking of the fibers. All skin types may be treated—even during the summer—without fear of complications. No gel or anesthesia is required.

## **LimeLight™**

Programmable Wavelength skin rejuvenation for the treatment of diffuse redness and facial telangiectasia.

### About LimeLight

The Cutera LimeLight combines the benefits of three distinct light based devices into one unique solution with a wavelength range of 520-1100 nm. This range of wavelengths allows for both hemoglobin and melanin absorption.

Each of LimeLight's three pre-set modes shift the wavelength spectrum to optimize treatments. In addition, the pulse widths and cooling are tailored to each of the applications to achieve optimum performance, unlike any other flashlamp devices. With a large spot size of 10 x 30mm, treatments are fast and effective.

For patients, the LimeLight Facial is a procedure that will treat their diffuse redness, dyschromia, telangiectasia, solar lentigines and rosacea with more precision - effectively decreasing the number of treatments. And, LimeLight can be used where you need it most - on the face, chest, arms and hands without gel or topical anesthetics.

### Advantages of the LimeLight

Technology delivers three pre-set modes that tailor the wavelength spectrum, pulse width and cooling for superior clinical outcomes

Real-time calibration delivers consistent output control of each and every pulse  
Treat red and brown dyschromia, telangiectasia and rosacea .

#### Naturale Clinic's equipment

Naturale Clinic uses the equipment created by Cutera, Lumenis and Biolitec , companies that produces light energy equipment. They are respected companies and its products are used by for medical purposes worldwide. The several kinds of equipment available include LASER ND YAG, LASER Diodo, INFRARED an INTENSE PULSED LIGHT. They allow most of the treatments with the light energy technology.

#### The CUTERA SYSTEM

The CUTERA XEO is a versatile equipment capable to treat undesirable several skin types and also vases of the body and of the face, even in brunet skins that are characteristic of the Brazilians, what would be a great problem for other equipment.

TITAN® - Infrared Light 1100-1800nm: Titan is the first tailored infrared light source for sustained deep dermal heating with the most frequent use on the face, submental area, neck and abdomen.

Laser Genesis™ - 1064nm Nd:YAG Laser: Laser Genesis is a non-ablative photorejuvenation procedure that provides multiple benefits . Laser Genesis addresses common skin conditions due to the aging process and the result is a healthier, younger-looking complexion. Clinical effects such as reduced wrinkles, diminished pore size, reduction in erythema and improved skin texture are all possible with this technology.

LimeLight™: Programmable Wavelength skin rejuvenation for the treatment of diffuse redness and facial telangiectasia.

#### LUMENIS SYSTEM

Light Sheer - LASER of Diode for Depilation

SYSTEM ELVes - BIOLITEC

EVLt - LASER of Diode for the surgery of varicose veins

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Due to unique characteristics and excellent cost/benefit, this equipment became the favorite of Naturale Clinic.

The treatments with LASER and INTENSE PULSED LIGHT are medical procedures

Naturale Clinic offers the most versatile and efficient equipment for the treatment of the undesired pilosity. But the person who operates the equipment is also important. All of the treatments with LASERs or INTENSE PULSED LIGHT at Naturale Clinic are performed or supervised directly by doctors, Members of the Brazilian Society of LASER in Medicine and Surgery.