

Depilation

Unwanted hair is an aesthetic problem that can bring discomfort for those who suffer from this problem. A form of fast elimination with long-lasting effects is sought by men and women.

Because of cultural habits, even in areas with normal pilosity like the armpit and the groin, the excessive hair become a real problem due to the frequent need of unpleasant and not so efficient methods of hair removal.

Another problem is the dermatitis generated by the simple presence of the hair or for its removal with the conventional methods.

Some hormonal alterations can modify the distribution and location of the hair, also generating discomfort for their sufferers.

A new technology that uses the luminous energy has been offered to treat the normal and abnormal unwanted hair: THE LASER AND IPL - INTENSE PULSED LIGHT.

The main principle is to use the property of receiving the light that the hair melanin has and destroy not only the hair, but also the follicle that produces it. This way, we can intensely reduce the amount of hair, and the ones that still remain, have their thickness reduced.

The depilation with the LASER and the INTENSE PULSED LIGHT should not be just considered a depilation process, but a treatment for the unwanted hair.

With the new techniques of LASER, a prosaic activity as the elimination of hair becomes a high medical technology, bringing to men and to women a reality that some time ago was only idealized.

Naturale Clinic offers the new technology of LASER for Photoepilation with state-of-the-art equipment and the best techniques available for each situation.

The treatment of hair is efficient, but many myths should be cleared up so that the results, that are very good, may be seen in a realistic way.

The Action of the LASER in Depilation

The hair is generated by a structure called pilous follicle.

The hair has the capacity to grow to a certain size and it can fall and be eliminated spontaneously. When a hair is eliminated spontaneously, a new hair is generated by the same pilous follicle.

It is for that reason that when the conventional systems of depilation are used, the hair grows again, in the same or even larger amount, thickness and color.

The phases of hair growth

This cycle of the hair has 3 phases, called growth phases.

The Growth Phases of the hair are Anagena (growth phase), Catagena (intermediate phase) and Telogena (resting phase).

The hair of a certain area can be in several growth phases. In the Anagena phase, the hair is very close to the wall of the pilous follicle, that is narrower. In the other phases, the hair are more separated from the wall of the follicle.

The hair is only eliminated in the Anagena phase, when there is a larger concentration of Melanin and a greater contact with the structures of the pilous follicle that allow its destruction.

For that reason, several applications in different intervals of time are necessary for each area. For each application, a part of the hair and a part of the capacity of production of new hair are eliminated. In the subsequent sessions, a better result is reached.

The selective action of the LASER

The use of the LASER for depilation has been studied by the medicine for some years. The main characteristic of the LASER is Selective Photothermolysis, which means that some structures of the body capture more heat and energy than others when submitted to the light energy.

In the case of the depilation, the Melanin present in the hair follicle receives most of the energy (the chromophore,) while the skin receives less. Melanin is a dark substance, and for that reason it captures more the light energy. The hair and the base of the hair follicle possess great amounts of melanin. The energy is received by the hair and then transmitted to the pilous follicle, which is finally destroyed. That eliminates the possibility of generating a new hair.

The structures of the body that possess color are called chromophores. So, the melanin that has the black color is a chromophore, and so is the hemoglobin of the blood that has the red color. There are many different kinds of light equipment that are capable to perform the Selective Photothermolysis, each one with its own characteristics to act on a specific chromophore. The ones that reach the black color perform the depilation, and the ones that reach the red color perform the treatment of varicose veins.

There are other characteristics too. These characteristics are based on the "Relaxation Time", which in other words means that some structures recover better from the heat and they are preserved, while others take longer to recover and are destroyed. These characteristics and some others, like pulse time, the wave length and other complex properties of the Optical Physics, allow the Selective Photothermolysis even in skins which color is close to the chromophores, as the tanned or black skins.

That's the reason why there are many kinds of LASERs and also other types of light energy generators, called INTENSE PULSED LIGHT.

For each patient , each treatment type and each chromophore type a different kind of equipment is indicated. The skin type will determine the choice of light energy to be used and the most suitable equipment type.

Types of Skin

In 1975, Thomas B. Fitzpatrick, MD, PhD, of Harvard Medical School, developed a classification system for skin typing. This system was based on a person's complexion and responses to sun exposure. Today, this classification system is also used to aid practitioners in the care of their patients. For successful laser and light therapy, it is necessary to determine your correct skin type.

Using this classification the doctor will determine the skin type, the energy and the equipment to be used.

Fair skins have faster results than the darker and black ones. When the skin tends to be darker, it is necessary to use low energies in order to avoid the damage to the skin. That causes a less efficient and slower treatment. The same happens with the lighter and thinner hair . These types of hair absorb less energy, making the treatment take longer.

In the initial phase of hair growth, the treatment will be more effective. The treatment is less effective in the other phases.

Therefore, it is not possible to determine an exact number of sessions for a satisfactory result, but during the initial appointment, the doctor will evaluate the kind of hair and skin, discuss the means and difficulties for the treatment and estimate a program for the treatment.

Any way, it should be clear for the patients that several sessions will be necessary and that this number varies according to each area and to each patient.

For the same reason, the treatment should not be performed in tanned skins because it reduces its efficiency and increases the risks of complications after the treatment.

Fitzpatrick Classification Scale

Skin Type	Skin Color	Characteristics
I	White; very fair; red or blond hair; blue eyes; freckles	Always burns, never tans
II	White; fair; red or blond hair; blue, hazel, or green eyes	Usually burns, tans with difficulty
III	Cream white; fair with any eye or hair color; very common	Sometimes mild burn, gradually tans
IV	Brown; typical Mediterranean caucasian skin	Rarely burns, tans with ease
V	Dark Brown; mid-eastern skin types	very rarely burns, tans very easily
VI	Black	Never burns, tans very easily

The Initial Appointment

Before any treatment with LASER and INTENSE PULSED LIGHT, the patient should have an appointment with the doctor.

In this initial appointment, the doctor will evaluate the area to be treated and suggest the best technique of LASER or INTENSE PULSED LIGHT to be used. The doctor will also estimate the length for each treatment as well as the number of necessary sessions and if maintenance sessions will be necessary. He will also make recommendations for the patient for the days that precede the application of LASERs (like to avoid sunbathing, for example) in order to avoid any complication during the treatment. In Naturale Clinic the evaluation and orientation are performed by specialized doctors and for LASER treatments it is free of charge (exclusively for depilation purposes).

Recommendations

It is ideal that the doctor is experienced in the LASER area. In Brazil, there is the Brazilian Society of Laser in Medicine and Surgery, that gathers doctors that are specialized in treatments and researches with LASER and INTENSE PULSED LIGHT in several areas of the Medicine. Naturale Clinic's doctors are members of the Brazilian Society of Laser in Medicine and Surgery and they are experienced in several performance areas.

The application of the LASER should be made by a doctor or by a trained nurse. However, a specialized doctor in the Clinic is always necessary.

As a general recommendation, the patient must avoid sunbathing during the 30 days that precede the application of LASERs or INTENSE PULSED LIGHT. If the treatment is facial and the patient is exposed to the sun, the use of sunscreen is recommended.

Length of the Treatment

The treatment can take from some minutes up to 1 hour or more. This time always depends on the area to be treated. The number of sessions required depends on several factors related to specific types of hair and skin. That means that the skin type, the color of the hair and the skin, the thickness of the hair, the size of the area to be treated and the amount of the hair in each growth phase will determine the number of sessions.

Number of Sessions

The doctor won't be able to determine in advance an exact number of sessions, but with his experience and after evaluating the patient, he can give a very approximate estimative of the results and the expected number of sessions.

The typical schedule is the following:

phase 1 - Attack

3 sessions each 3 or 4 weeks

phase 2 - Consolidation

3 sessions with intervals of one or two month between them

phase 3 - Maintenance

2 or 3 sessions each 4 or 6 months

The Depilation is Definitive ?

Depilation with LASERs is definitive for most of the treated hair, but the term Definitive Depilation is not appropriate, because it gives the idea that, once treated, the repetition of the treatment will not be necessary. That is a myth, because no LASER or INTENSE PULSED LIGHT equipment available in the world nowadays is capable to perform a definitive depilation of all of the hair. Actually, some equipment reach the definitive depilation of most of the hair and with the correct maintenance, the results can be very close to the ideal of the Definitive Depilation.

As results, we can expect the decrease in the amount of hair and favorable changes in the hair characteristics: thinner and lighter hair with smaller rate of complications as infections and skin irritation.

With the maintenance treatment, the result can be very close to the Definitive Depilation. But the idea that with a single application of LASER a man with a thick beard will never again need to shave, or that a woman with great amount of hair in the legs will never again need to remove the hair is quite imaginative. However, the effects of the treatment are very efficient in the short, medium and long terms, and the association of a series of sessions with a maintenance treatment brings results that it cannot be obtained by none of the old methods of depilation. These characteristics are responsible for the great use of the technique all over the world.

The Technology of Light is the only one that eliminates hair for a long period of time .

Depilation with INTENSE PULSED LIGHT or with LASER of Diode

The LASERs Light Sheer and Cutera ND YAG and the INTENSE PULSED LIGHT , offer soft, effective and convenient solutions for men and women. These treatments use flashes of light energy for the elimination of unwanted hair. The equipment will be chosen according to the color of the skin, the type of hair, and the areas to be treated. The doctor is the responsible or choosing the adequate equipment for the procedure.

The difference between the LASER and the INTENSE PULSED LIGHT is that the LASER has only one wavelength. In other words, the light has only one color, while the INTENSE PULSED LIGHT has several wavelengths and the light is white.

In the case of the INTENSE PULSED LIGHT, the emission can be modulated by filters that allow the light transmission above a certain wavelength that will give the INTENSE PULSED LIGHT a large number of uses, for depilation, photorejuvenation and the treatment of vases.

On the other hand, the LASERs have only one wavelength and for multiple uses, multiple LASERs are necessary.

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 tanned skin with pigmentations and cause burns. The person who is going to be submitted to the procedure should avoid the sun for at least 15 up to 30 days before the treatment and 7 to 15 days after it is performed. Although some LASERs and INTENSE PULSED LIGHT can safely perform treatments on tanned skin, the doctors from Naturale avoid that, even though we have the equipment available (called equipment of long pulse).

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. The skin can be a little irritated and red, but it soon gets better.

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 types of light brunet skin can perform the treatment. An appointment with the doctor will determine the best indication. Most modern LASER technologies allow treatments on darker skins, but a lot of prudence is necessary.

Why are several sessions necessary for the depilation with LASER?

Because the hair has several growth phases and only in the initial phase it will adequately respond to the treatment with LASER. It means that in a certain moment, only the hair in the adequate growth phase will be definitively eliminated and the hair in the resting phase will be removed, but not definitively. This varies from patient to patient and according to each area of the body. Therefore, two patients who receive the same treatment can have different results and one can present faster results than the other.

Why are maintenance sessions necessary?

The skin is a live organ and that's why it always has the capacity to regenerate. New pilous follicles can appear and new hair can appear as a result. For this reason, after reaching the desired result, annual maintenance sessions are necessary.

Naturale Clinic's Equipments

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

LASER and LIP Systems for Epilation

LUMENIS SYSTEM

Light Sheer - LASER of Diode for Depilation

CUTERA SYSTEM

LASER Genesis ® Nd: YAG - LONG PULSE

ProWave 770 ® - INTENSED PULSED LIGHT

Due to unique characteristics and excellent cost/benefit, these equipments became the favorites 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.