

Hair removal Laser

Hair Removal Laser is one of the most recent developmental technologies in the area of Cosmetic Surgery and forms an integral part of total body care in a treatment regime. Queensland Plastic Surgery offers the Coherent LightSheer Diode Hair Removal Laser, with treatments performed by fully trained staff on a daily basis. Appointments for consultation and treatment can be scheduled by telephoning 07 4771 4344.

This information brochure is designed to give you a basic understanding of hair removal laser and in particular the LightSheer Diode Hair Removal laser. Please direct any further questions to our staff who will be happy to answer them or direct you to further information.

Some Basic Anatomy of the Skin:

Hair is made up of keratinous fibres that grow from the epithelial follicles over the entire skin surface, except in certain areas such as the palms of the hands and the soles of the feet. A person's total endowment of follicles is determined during his or her embryonic development. No new follicles are produced after birth.

Hair can be classified into two major types:

1. Terminal hairs – which are thick, pigmented with melanin and long. These are found on the scalp, the eyebrows, the underarm's, and the genital areas as well as on the arms, chest, face, legs and back.
2. Vellus hairs are small in diameter and are non-pigmented.

Hair grows in recurring cycles.

1. The phase of active hair growth is called anagen. During anagen, the hair contains an abundance of melanin. This phase can last up to 5 – 7 years in scalp follicles. Each follicle in human skin maintains an independent growth rhythm from other follicles. At any given time, the majority of hair follicles (80 – 85%) are at some point in anagen. The average scalp hair grows at a rate of approximately 37mm per month while hairs at other anatomic sites grow more slowly. Hairs in the anagen phase are most susceptible to the effects of laser light.
2. Catagen is the phase of regression, during which the growth of the cell ceases.
3. Telogen is the final phase of hair growth, or the resting phase, where the old hair falls out in preparation of a new hair.

Traditional treatments to remove unwanted hair include:

1. Shaving
2. Waxing
3. Tweezing
4. Chemical depilatories
5. Electrolysis / Electrothermolysis

While these methods are all effective in the short term, they are also inconvenient, messy, and painful and may be associated with risks such as infection and scarring.

The LightSheer Diode Hair Removal Laser:

The LightSheer Diode Laser System is designed to remove unwanted hair through selective photothermolysis. This process involves local secretive absorption of an intense light pulse at wavelengths that are absorbed by the desired targets (hair follicles) and not the surrounding



tissue. The melanin or pigment in the hair shaft selectively absorbs the light pulse, and this causes destruction of the hair follicle. The hair growth is significantly impeded or eliminated. Damage to adjacent tissues is minimal.

The LightSheer Diode laser has a special cooling tip, which protects the outer skin or epidermis, and allows higher doses of laser energy to safely and effectively target the deeper hair follicles without damaging the outer skin.

As the method of targeting the hair follicle with laser is through melanin – or pigment, then those hairs with little or no pigment such as blonde hair, white hair or grey hair cannot be treated with hair removal laser. Tests to date indicate that treatment for black; brown, auburn, or red hair has been very successful with long term hair reduction.

Skin pigmentation influences treatment with the hair removal laser significantly. As the laser targets the pigment or melanin in the hair follicle, if there is a large degree of pigment in the surrounding skin, then it too can be targeted giving pigmentary changes along with hair removal. The LightSheer Diode Laser is equipped with variable wavelength and pulselength treatment parameters which can be altered according to skin type and for this reason, you will be queried in regard to your ethnic background prior to treatment with laser, as this will determine the dosage of treatment. A higher dosage can be given for example, for a person with very white skin, and those with white skin and dark hair get the quickest and most effective treatment with laser hair removal. With many other hair removal lasers on the market, dosage cannot be altered, and the risk of altering pigmentation with darker skinned clients often is too high and they are turned away from treatment. The LightSheer Diode laser is suitable for any skin type, from very white to very dark. Results in very dark skin however, may take longer to occur.

The FDA or Federal Drug Administration Board in America has approved the LightSheer Diode laser for hair removal. At the current time, this laser is one of only three that have been approved by the FDA for permanent hair reduction.

Pre-treatment Regime:



The LightSheer
Diode Laser head
against the skin

At the time of consultation for hair removal laser, you will be asked a number of questions in regard to your general health, ethnic background and expectations. You will also be offered a test patch of laser so that you know what to expect if you decide to proceed. This test patch is not a pre-requisite to treatment; you may simply proceed with treatment without this test.

For laser to be effective, a series of treatments is necessary and this varies on average between 4 – 6 depending on the area to be treated, skin type and the amount of hair. Treatments for those areas above the neck are usually scheduled for three to five weeks apart and those below the neck to 8 – 10 weeks apart

All patients are advised to avoid waxing, plucking, depilatory creams or electrolysis for at least four to six weeks prior to treatment. Shaving can be continued and you will be required to shave the areas the morning of your treatment, unless otherwise advised by your therapist.

You are also asked to avoid tanning the area to be treated for several months prior to treatment and most certainly during the duration of your treatment. If the area is exposed to the sun following treatment, the risk of pigment change is greatly increased. Physical block or SPF 30+ applied hourly is recommended if sun exposure cannot be avoided.

What Can Be Treated?

For women, common areas are bikini line, underarms, lip and chin. Also treated are legs, arms, chest, nipples and back. For men, common areas include the back and upper arms. Treatment time varies according to the size of the area treated and ranges from 5 minutes to 60 minutes.

Areas not treated by hair removal laser include:

Eyebrows, male genitals, hairs growing from moles, tattooed areas and hairs close to mucous membranes.

Side Effects:

As with any medical treatment, use of Hair Removal Laser can have some side effects. Side effects are generally minor and included redness and swelling of the area treated, and in very rare instances, blistering. These effects usually subside in 2 – 4 days, however may persist for longer.

No treatment for unwanted hair is completely painless. The Hair removal laser is fast, and in most instances, the sensation is that of pinprick which subsides quickly following treatment. Genital areas are often more sensitive as the hair is often coarser in these areas. Topical creams to numb the area such as Emlar, are available for use with hair removal laser, however these creams require application for one hour prior to treatment.

Immediately after the treatment, the area is often red, slightly swollen and bumpy. A mild steroid cream is applied and you are given an instruction sheet on home care for the area. It is important to avoid sun exposure to the area treated and the use of SPF 30+ is recommended at all times.

In some instances, a crusting or scabbing will occur over the area, which is managed by moisturising lotion.

Areas that are prone to ingrown hairs such as the bikini line, are markedly improved with hair removal laser. In most instances, ingrown hairs are treated extremely effectively and do not recur.

Risks and Complications:

Risks and complications of hair removal laser are minimal and rare, if performed in a controlled environment by a suitably trained technician. Outlined below are the risks that may be associated with laser.

1. In addition to pain, redness, swelling or blistering, transient changes to the skin pigment can occur. This most commonly takes the form of hypopigmentation or bleaching of the skin in the area treated and is often found in darker skin types. It is usual for this condition to be transient and improve in several months, however some pigmentary effects may be permanent. Hyperpigmentation (or increased pigment) may also occur and may require the use of a bleaching agent to treat the area. Pigmentary changes more commonly occur with darker skin types.
2. Patients who carry the herpes simplex virus and receive treatment on their upper lip, chin or lower cheeks, may have an outbreak of their condition. The risk of this complication can be reduced if prophylactic Zovirax is taken prior to treatment.
3. Laser cannot be performed on those patients with a history of epilepsy nor those with a history of excessive scar formation.
4. Protective eyewear is a requirement during all treatment sessions, as laser damage to the eye can cause visual disturbance or blindness. It is a prerequisite to treatment, that protective eyewear is worn. Our Rooms provide this.

A final Note:

Laser Hair Removal can provide a safe, effective and long lasting reduction of body hair in unwanted areas. Clinical tests to date indicate up to 90% effectiveness in permanent hair loss. Results can be seen after one treatment, however a series of treatments are required to produce an effective and more permanent result.

The days of ingrown hairs from shaving or messy depilatory creams are over; laser provides the latest effective and safest alternative.

