

TREATMENT BY DEPILATORY LASER

Last update on May 23rd 2023

Hair removal by laser and pulsed polychromatic light (flash lamps) has been performed since the 1990s and has already proved its worth. More effective, faster and less painful than electrolysis, photo-depilation will improve patients' comfort and quality of life, whether they are daily annoyed by "undesirable" hair or suffer from real diseases such as hypertrichosis, hirsutism, folliculitis or hidradenitis nodules, pilonidal cysts Every folliculitis related to inflammation or incarnation of hair after shaving or waxing, will be easily improved in one or two sessions only. Photo-depilation is not total or definitive but is defined as a sufficient reduction of hair during a hair cycle. Results may vary depending on gender, age, treated area and hormonal changes.

WHAT IS A HAIR?

The hair originates at the bottom of the hair follicle.

Each hair is characterized by:

- Its color (quality and melanin content)
- Its type which determines its depth and thickness: down (thin and superficial), intermediate and terminal (thick and deep).
- Its stage of growth, over 5 to 18 months depending on the areas, (anagen: growth, catagen: rest, telogen: fall).

Attention: In the same area, all the hairs are not in the same phase nor implanted homogeneously at the same depth. Each hair follows separately its hair cycle and the laser will not be able to destroy all of them in one session...

MECHANISMS OF ACTION

The monochromatic energy of lasers or the polychromatic energy of pulsed lamps will be absorbed by the melanin located in the hair bulb and transformed into heat. The aim is to thermally destroy the deep germinative structures (bulb and bulge) of the hair so that it can no longer regrow, without damaging the other structures of the skin. It is the intracutaneous part of the hair shaft (called "root" by the patients) that conducts heat to the germinative structures to destroy them.

PRACTICAL CONSEQUENCES

During the session, the hair bulb is necessary for an effective treatment, that's why, depilation with wax or tweezers is not allowed before a laser session. However, depilatory creams, scissors or shaving, which leave the hair shaft in the follicle can be used without problem. Anagen (growth) hairs are the most sensitive to the effect of laser treatment because they are richer in melanin and higher in the skin. Unfortunately, they represent only 20-70% of the hairs in a given area at a given time. To get good results, you have to repeat the sessions. In general, patients are treated every 4 to 10 weeks depending on the area. The total number of sessions depends on the color of the skin, the treated area and the type of device used. On average the attack treatment requires 4 to 7 sessions. It is important to note that the less powerful

pulsed lamps used by beauticians require more sessions and will allow only partial depilation.

Maintenance sessions (more spaced) may be necessary especially in hormone-dependent areas such as the face or in men. The results are generally longer to get and less perfect in hormone-dependent areas, especially for women having an untreated excess of male hormones (hyperandrogenism).

The best candidates for laser hair removal are patients with light skin and dark hairs. White hairs can't be treated (no melanin target), blond or red hairs but also thin hairs are more difficult to treat because there is less "target" for the laser.

Tanned, mixed or black patients are more difficult to treat. In this case, the laser beam first encounters melanin from the surface of their skin with the risk of crusts and dyschromias (white spots). The use of specific lasers such as Nd: YAG laser or diode laser is required.

CONTRAINDICATIONS

There are no contraindications

2 circumstances may lead to delaying treatment:

- Tanned skin, it will be easier to treat "untanned" skin.
- Pregnancy is not the best time to treat without being a contraindication.

Vitiligo patients should report this to the doctor as they may develop a Koebner phenomenon (appearance of permanent white spots on laser treated areas).

NORMAL AFTERMATHS

- Sensation of sunburn (a few hours in general, maximum 2 days)
- Redness and swelling for 1 to 24 hours
- Small crusts.

SIDE EFFECTS

Possible and without long-term consequences:

- Crusts and small blisters
- Transient brown or light spots (a few months)
- Eczema (allergies to anesthetic cream, contact gel or hair debris themselves ...) or urticaria
- Small vascular disorders without severity (livedo, bruises, thrombosis of varicosities)
- Folliculitis (inflammation of the hair)
- Paradoxical hypertrichosis is the appearance of thin hairs on the area treated with depilatory laser or at the periphery of the treated area. This is a rare side effect occurring most of the time on the face of patients with dark skin and hormonal instability. It is random, requires more sessions (sometimes 20) which will then be covered by the patient.

Much rarer:

- Change in sweating
- Definitive scars may exist but are exceptional.

SHOULD WE DO A TEST?

Usually a test is not necessary. In some special cases (doubt about a tan or very dark skin, blond or light hair), a test can be performed. In these cases, it allows to evaluate:

- Tolerance (crusts, eventual blisters ...) within 48 hours

- Efficacy, because in the treated area the hairs must fall after 15 days.

METHODS OF TREATMENT

The patient is wearing eye shields to prevent any ocular injury risk associated with the use of laser. A gel is sometimes applied to the area to be treated. The area should be clean and shaved beforehand (if possible 2 to 3 days before the session so that the skin is not irritated and the emergence of the hair can be visualized).

The laser handpiece is placed in contact with the skin and emits the light pulse. A feeling of tingling, stretching or very brief burning is felt. The effect sought by the physician is the formation of small areas of edema looking like stings of nettle around the hair orifices. The hair is carbonized or vaporized according to the laser used. Sometimes it falls in the weeks following the session. The redness and the swelling are witnesses of an effective treatment and disappear within a few hours.

Rarely, crusts or blisters can be observed, and will rapidly resolve with an appropriate treatment (healing ointment). Brown or white spots may also occur but everything goes back to normal in a few weeks or months (after a summer).

This information sheet recommended by the French Laser Society can be given to you by your dermatologist. Even if it is not sufficient to have an estimate, it helps to give the patient a clear information.

The information consultation provides clear explanations on expected outcomes, side effects and possible complications. There are not any reimbursement from social security or medical leave for these aesthetic treatments. Prices are mainly based on the area to be treated. The total cost is to be evaluated with the patient and is the subject of a signed quote.

A post-operative order and an advice sheet are given to the patient with the doctor's contact information.



Laser et Peau: **the French-language information site for patients, written by expert dermatologists from the Société Française des Lasers en Dermatologie.**

Everything you need to know about laser treatments, pulsed light, radiofrequency and other techniques for skin care or aesthetic applications.



SCAN ME