

How does laser hair reduction work?

Laser systems emit a beam of light that passes through the skin to the hair follicle. By a principle called **selective photothermolysis**, the light energy passes harmlessly through the unpigmented skin, but is absorbed by the pigment in the hair follicle and hair shaft. The hair absorbs it, the energy from the laser is transformed into heat and the hair follicle is disabled. The process requires a pigmented target (the hair and hair follicle) so the laser is effective only on hair follicles in the active growth phase (anagen).

Why are several treatments required?

The laser works by disabling hair in the active growth stage (anagen) at the time of treatment. Not all hairs are in this stage during treatment. Those follicles in the resting stage (telogen) may not have a hair in place and will not absorb the laser energy. Treatments given at intervals of 4-6 weeks, or when new hair growth is noticed, are designed to treat as many follicles as possible in the active growth stage. Depending on your skin type, several or more treatments may be necessary.

What is my skin type and how will it affect my treatment and results?

The many different skin types are the result of various amounts of melanin, the pigment present in the skin. The response to sun and laser is different for each skin type. Below is a chart of the various skin types and the associated properties from which you can determine your own skin type.

Skin Type	Skin Color	Sun exposure results in:
1	White	Burn, never tans
2	White	Burn, tans minimally
3	White	Tan, minimal burn
4	Light Brown	Tan, minimal burn
5	Brown	Tan, rarely burns
6	Dark Brown or Black	Tan

Persons with light skin are the easiest to treat, require fewer sessions and often have the most satisfying results. Persons with dark skin (or lighter skin that is sun tanned) may require more sessions and may have less satisfying results because the melanin, the dark pigment in skin, is also present in hair. The melanin in the skin absorbs some of the laser light leaving less energy to disable the hair follicle.

Anyone on a diet high in beta-carotene will need to change eating habits if they want best results. Beta-carotene, found in vitamin A, carrots, squash and other vegetables produces a yellow or orange color in the skin which absorbs the laser energy and interferes with it reaching the hair follicle. As beta-carotene can remain in the body for months, an adjustment in diet may be needed well in advance for optimum results.

How does it compare with electrolysis?

Electrolysis can be a tedious, painful process destroying each hair follicle one at a time. This can sometimes require treatment over years at regular intervals. Lasers on the other hand can treat hundreds of hair follicles simultaneously so the process is much quicker.

How do I prepare for treatment?

Laser hair removal works best when the hair is about 1/8" in length. Unwanted hair should be addressed only by shaving for a couple of weeks before the treatment and then allowed to grow to the 1/8" length at the time of the treatments. Avoid waxing, electrolysis or chemical hair removal methods well in advance of the treatment. Avoid bleaching of the unwanted hair. Avoid any type of tanning or tanning products prior to or during treatment. Between treatments, unwanted hair should be addressed only with shaving. As mentioned above, avoid a diet high in beta-carotene before and during your treatment period.

How long does the treatment take?

Treatment times vary among individuals depending on the skin type, density of hair, hair coloring, and coarseness of the hair. The table below is a general guide for several common areas of treatment, and estimates the amount of time you might plan to spend in the office, including before and after the treatment. The actual treatment itself is usually shorter than that listed below.

Treatment area	Time
Back	1 ½ to 3 hours
Underarms	15 minutes
Bikini Line	15 minutes
Upper lip and chin	15 minutes
Legs	1 ½ to 3 hours

Is the treatment uncomfortable?

This varies among individuals depending on their sensitivity. Many people describe it like the snap of a rubber band on the skin. In all cases, the period of discomfort is very short and should not require anesthetics or pain medication before, during or after the procedure.

What can I expect after the treatment?

Shortly after treatment the area may become slightly red and puffy, similar to a mild sunburn. This redness is temporary and usually disappears within a few hours, and almost certainly within a day. No bandages are necessary. However, cold packs may help with the redness, and emollients and moisturizers of your choice may provide a soothing comfort after the treatment. Depending on the area treated you should plan work or social engagements accordingly.

Avoid using Retin-A, alphas hydroxy acids, glycolic acids, and other astringents. The best care for skin after laser hair treatment, and in general, includes cleaning the area using mild

soap and water, using plenty of moisturizing lotion, avoiding sun exposure, and the liberal use of a sunscreen whenever exposed to the sun.

When can I expect to see results?

Around 3-10 days after treatment hairs will begin to surface and may **appear** to be regrowing. These are actually hairs that have been successfully treated and are being shed. The disabled hair follicles need to purge the hairs that remained under the skin. Over the next month or two additional hair will gradually fall out. Those hairs that were in the quiescent stage (telogen) of growth during the treatment will continue to grow. These hairs can be shaved, but should not be plucked, waxed, or bleached and will be targets for the next treatments when they themselves are in the growth (anagen) phase. The number of treatments required to gain an acceptable reduction in hair will depend on the factors discussed above. Only after the series of treatments (over several months) will you see long-lasting and significant results.

Is complete and permanent hair removal guaranteed?

Unfortunately not. Although most individuals with favorable skin type and hair color experience excellent results, others will have somewhat less good results. The results depend on numerous factors that cannot always be predicted or controlled for.

Is it safe?

Yes. In general, the procedure is very safe. However, like any procedure, there are some risks. There have been reports of patients injured by the laser resulting in blisters, burns, permanent scars, and changes in skin color (hyperpigmentation or hypopigmentation). These cases are extremely rare and the risk to you is very small.