



About the effectiveness of
Laser
and
**Intense
Pulses Light**
Hair Removal

Laser and Intense Pulsed Light are powerful technologies approved by Health Canada for cosmetic applications.

Think of your body and your health first, not your wallet!



Laser hair removal

As the definitive hair removal method of choice in North America for almost 20 years, lasers have a proven track record¹. Dating back to the 1970s, this technology was used in the medical field long before it started to be used for cosmetic applications in 1995.


The primary principle behind laser hair removal is "selective photothermolysis", a high precision technology. Indeed, a laser is a device that amplifies light and makes it converge into a narrow optical beam². It transmits monochromatic rays, with a single wavelength, where all particles are moving

in the same direction. The effect of these beams is therefore stable and measured, as the energy emitted remains constant. The tip used is small and targets hair with precision. The device provides the ergonomics, power and skin depth needed to achieve permanent hair removal.

The safety of laser hair removal is also proven³, in part, because of its precision, but also because lasers usually feature built-in, temperature-controlled skin cooling systems that prevent or significantly reduce burn risks. It should be noted that newer

generation lasers are specifically designed for hair removal.

Another benefit of laser hair removal is that it is the only method that can treat all skin types, including olive or darker skin⁴. People should also know that lasers not only target the destruction of the hair bulge (a reservoir of germ line cells), but that of the hair bulb (the lower extremity of the hair follicle in the dermis). Lasers make the hair "explode" from the bulb to the bulge, which is rarely the case with IPL lamps because many of them are of inadequate quality.



Contrary to popular belief, IPL lamps do not use laser technology.

(IPL)

Intense pulsed light hair removal

This method has become increasingly popular, especially since 1997, because it has been marketed as being quick and inexpensive. But is this really the case?

Most of the time, the price difference can initially be explained by the devices' cost difference. Contrary to popular belief, IPL lamps do not use laser technology. They are xenon flash lamps that often cost around \$15,000 versus \$85,000 for a laser device, if we compare the cheapest models.

Now, in terms of function: Unlike laser systems, IPL devices emit non-coherent polychromatic light with a wavelength of 500 to 1,200 nm, depending on the interposition of the filters⁵. IPL lamps emit light pulses of

different wavelengths and do not offer the same precision as laser systems, despite the filters. Broad spectrum wavelengths are used to treat a larger area, without specifically targeting unwanted hair. Each session is therefore shorter, but less effective.

The number of sessions needed and the total cost to obtain "definitive" results is often substantially greater with IPL treatments than with laser treatments⁶, resulting in little or no savings in the final analysis.

According to comparative studies⁷, IPL treatments also pose a greater risk of skin injuries and of inconsistent results. It should be noted that IPL lamps were not initially designed for hair removal, but rather for skin rejuvenation.

Another factor to consider is that IPL treatments are only for people with white skin and dark hair, not for those with tanned, olive or darker skin tones. As well, sun exposure must be completely avoided during the months of treatments.



It is true that IPL sessions are considerably less painful than laser sessions, as the rays do not penetrate as deeply in the dermis. Using IPL can be very effective for certain applications, including reducing and lightening unwanted hair, such as arm hair.



References

¹ According to Dr. Daniel Barolet (Le Clinicien, January 2002) (liberal translation), "The clinical effectiveness of diode lasers is well documented. They have an excellent epidermis safety record and are the industry gold standard."

² Definition borrowed from ETMIS (Québec)'s 2008 report, No. 4, Vol. 4, « Utilisation de lasers de classe 3B et 4 et de la lumière intense pulsée à des fins esthétiques dans un contexte non médical » (Use of Class 3B and 4 lasers and of Intense Pulsed Light for aesthetic purposes in a non-medical context)

³ Source: Le Clinicien, January 2002, extract of article written by Dr. Daniel Barolet, Clinical Training Manager, CHUM (liberal translation): "Laser hair removal is an extremely safe procedure; no serious side effects have been reported in scientific publications between 1995, when it was first used, and now."

⁴ Dr Daniel Barolet (Le Clinicien, January 2002) (liberal translation): "The median wavelength of laser diode systems enable safely treating all skin types..."

Note: Approved by Health Canada and the FDA (US), laser diode systems, such as the LightSheer used by Epiderma, are considered the industry gold standard. Epiderma has treated more than 70,000 customers and has administered more than 700,000 laser hair removal treatments to date, a level of expertise that is unmatched in Canada.

⁵ Definition borrowed from ETMIS (Québec)'s 2008 report, No. 4, Vol. 4

⁶ This finding is corroborated by several laser hair removal clinics, which report many cases of patients who underwent laser hair removal after undergoing a long series of unproductive IPL hair removal treatments.

⁷ Extract from the study, "Laser Hair Removal: Comparing Single Wavelength and IPL Technologies" by Philip L. Bailin, M.D., F.A.C.P., Chairman, Department of Dermatology, Cleveland Clinic Foundation: "At the Cleveland Clinic, we had far more adverse skin reactions (usually minor and transient, but occasionally serious) from IPLs than from any Laser system..."

Based on our experience at the Cleveland Clinic, we have ceased using IPL devices in our department due to the inconsistency of response between patients and even between sessions on the same patient. Another reason for the cessation of IPL use was the unacceptably high complication rates."

"True or False" Quiz

7 Questions for Hair Removal Champions

1. Intense Pulsed Light (IPL) hair removal is a form of laser hair removal.

FALSE

The device used for IPL hair removal is not a laser, but a xenon flash lamp.

2

IPL is a "definitive" hair removal method that is **FASTER** than laser hair removal.

FALSE

IPL sessions are usually shorter since the tip used is wider, but to obtain a "definitive" result, the full treatment usually takes longer as more sessions are required.

3.

IPL is a "definitive" hair removal method that is **MORE AFFORDABLE** than laser hair removal.

FALSE

Since the lamps tend to cost less, prices for IPL treatments may initially seem more appealing than laser treatments, but given that more sessions are required, they do not provide any real time or cost savings.

4. Lasers are the only devices that can treat **ALL SKIN TYPES**.

TRUE

including olive and darker skin, whereas these skin types cannot be treated with IPL hair removal.

5.

IPL offers the **SAME BENEFITS** as lasers.

FALSE

IPL treatments are generally less painful and help reduce or lighten unwanted hair. However, when it comes to hair removal, laser devices are more effective. Lasers are high precision instruments with a single wavelength that can perfectly target hair, whereas IPL lamps are a source of "non-coherent" polychromatic light that cannot offer the same level of precision. IPL also presents a greater risk of burn than lasers, most of which have a built-in, temperature-controlled skin cooling system.

6. Lasers can effectively treat blond, white or light red hair.

FALSE

Neither lasers nor IPL lamps can effectively treat blond, white or light red hair.

7.

An IPL session is **LESS PAINFUL** than a laser session.

TRUE

This is true, as the laser beam is more targeted and penetrates deeper.

