
Vascular Laser Therapy

What is it & is it safe?

Vascular lasers use light to target and destroy unwanted capillaries and blood vessels of the skin. The laser wavelength is chosen to selectively target the abnormal blood vessels only, sparing the surrounding normal skin structures. When used properly by trained staff, the procedure is extremely safe and effective. Eye protection must be used by both the patient and the operator during therapy. This type of laser treatment is not associated with any long-term problems such as skin cancers. To make the procedure more comfortable however, the skin is kept cooler with a chiller plate so that the heat energy is not transferred to other areas of the skin to cause unwanted side effects.

How does it work?

The skin structures such as capillaries and veins contain red blood cells with haemoglobin that absorb light energy at a specific wavelength. Vascular lasers are scientifically and clinically proven methods of delivering light energy to these unwanted targets to reduce their appearance.

The haemoglobin absorbs the light energy that gets converted to heat leading to destruction of the blood vessels.

What is the difference between BBL/IPL and Lasers?

Lasers utilise a single wavelength to deliver energy to skin targets. IPL or BBL uses a spectrum of wavelengths. Lasers have a reputation of precision and power and are well proven and established processes in cosmetic dermatology.

What can vascular lasers do for me?

Blood vessels & facial redness

- Reduces and eliminates broken capillaries
- Facial redness may be the result of thousands of fine broken capillaries that when treated will lead to reduction in the appearance of facial redness
- Leads to less facial flushing and burning
- Other vascular lesions that can also be improved include:
 - Spider angiomas
 - Venous lake
 - Hemangiomas
 - Capillary malformations

What does the procedure involve?

In most cases, one to three treatments should be enough. However, in some individuals, more treatments may be necessary for best results, usually spaced a month apart. Certain vascular birthmarks may require multiple (5 to 6) treatments for significant fading.

The treating doctor will determine if topical anaesthetic is required. There is a cooling plate on the laser that both protects the skin and also reduces the treatment discomfort, so the cream anaesthetic will be applied 60 minutes before the procedure.

Protective eyewear is required and provided during the procedure, as blood vessels in the retina of the eye must be protected. A cool gel will be used on the skin to facilitate skin contact of the handpiece. When the device fires, there is a bright flash followed by a brief stinging pain similar to a rubber band flick. This is followed by a mild burning sensation that lasts for a few hours.

What happens after treatment & how long will the results last?

The treated area will be red and slightly sensitive for a few hours. Make-up may be applied if desired. Occasionally this may be accompanied by swelling (especially around the eyes) and/or mild point scabbing that will settle within a week. Treated vessels may darken which is a good sign but is not necessary for the treatment to be effective. Most of the treated vessels will disappear although some may return after 24 hrs indicating a need for further treatment. The treatment results are long lasting but new vessels may occur naturally, or as part of the underlyingly cause, requiring top-up treatments from 6 months to years later.

What are the unwanted side effects of vascular lasers?

Side effects are uncommon but may include:

- Burns to the skin leading to crusting
- Alteration in pigment – darker or lighter
- Darker skin individuals are those with recent tanning are at greater risk of developing both increase or decrease in pigment
- The alteration in pigment may either be temporary or rarely, permanent
- Scarring and indentations – usually as a result of burns (extremely rare)

Is everyone suitable for vascular Laser?

There are certain circumstances in which we may not treat:

- Pregnant or breast-feeding women
- Children under age 18 without parental consent
- Current significant skin disease / infections such as cold sores at the site of treatment
- History of keloid scarring (special precaution in high risk areas)
- Patients on medication that causes sensitivity to light
- Any emotional, mental or medical condition that may lead to unrealistic expectations

Post Treatment Response

The laser energy is capable of deep penetration and selective coagulation of blood vessels without damage to the epidermis. Vessels may disappear, darken, lighten or appear unchanged but fade with time. Variations depend on the depth, diameter and oxygenation of the blood in the vessel. Contraction, disappearance, lightening or darkening of the vessel will become apparent within 15 seconds after the laser treatment. Redness and swelling may be visible for 4 to 6 hours following the laser treatment. Blistering rarely occurs during the first 3 days following laser treatment. Blistered areas should be treated with care, keeping the area moist with vaseline until the area has healed. Some patients develop raised papules similar to hives, this is a normal variation and usually subside in a few hours.

Post Treatment Care

Post treatment discomfort may be relieved by paracetamol or a similar mild analgesic. A cold compress or an ice pack can be used after treatment and is recommended in darker skin types. Apply for 10minutes every hour until discomfort subsides. Shower with cool water on the treated area.

Avoid sun exposure. A broad spectrum sun block must be applied 15 minutes prior to sun exposure and reapplied every 2 hours or after swimming.

A moisturiser should be applied to the area to prevent drying and crusting. If crusting develops it should be allowed to fall off naturally (no picking). Contact the clinic if there is an indication of infection such as increased redness and tenderness or pus. If blistering develops please keep the area moist with Vaseline, do not break the blister.

Do not use hot water to shave the treated area for three days following treatment.

Your doctor may advise you not to do activities that will dilate your blood vessels such as aerobics, spas, saunas, alcohol, spicy foods, and caffeine etc for 48hours. The treated area is very delicate and should be treated with care.

You should schedule a follow-up appointment for 4-6 weeks.