

Laser for Vascular Lesions

What are vascular lasers?

Vascular laser treatment uses focused beams of light to target blood vessels in the skin. The laser energy is absorbed by haemoglobin (the red pigment in blood), heating and destroying the vessel without damaging surrounding tissue. Different types of vascular lasers exist, such as pulsed dye laser (PDL), Nd:YAG, and KTP lasers, each suited to different depths and sizes of vessels. These treatments are commonly used for redness, thread veins, rosacea, and vascular birthmarks.

Why might I choose to have this procedure?

You may consider vascular laser treatment if you are bothered by visible facial redness, thread veins (telangiectasia), rosacea-related flushing, spider angiomas, port-wine stains, or other vascular lesions. It is a safe, effective way to reduce unwanted vascular markings and improve skin appearance without surgery.

What does the procedure involve?

Before treatment, you will have a consultation to review your medical history, skin type, and treatment goals. You may be asked to avoid sun exposure, tanning, or certain skincare products beforehand. During the procedure, protective eyewear is worn. A cooling spray, gel, or device may be used to make the procedure more comfortable. The laser handpiece is applied to the skin, delivering short pulses of light energy. You may feel a stinging or snapping sensation. Sessions typically last 15–45 minutes depending on the size of the area treated.

What are the benefits of the procedure?

Vascular lasers can safely and effectively reduce or eliminate unwanted blood vessels in the skin. Results include reduced redness, improved skin tone, and clearance of visible vessels or vascular lesions. Many patients notice significant cosmetic improvement after as few as one session.

What are the risks and potential side effects?

Immediately after treatment, redness, swelling, and a sensation similar to sunburn are common. Small treated vessels may appear darker before fading. Bruising (purpura) can occur, especially with pulsed dye lasers, and usually resolves within 1–2 weeks. Less common risks include blistering, scabbing, temporary or permanent pigment change, and

scarring. Rarely, infection may occur. Vascular lasers are generally not recommended for recently tanned skin, as this increases the risk of pigment changes.

What alternatives are available?

Alternatives may include intense pulsed light (IPL) for more generalised redness, camouflage make-up, topical treatments for rosacea (e.g. brimonidine or oxymetazoline creams), or no treatment. Surgical options are rarely used for superficial vascular lesions but may be appropriate in some cases. Your dermatologist will advise the best option for you.

What should I expect after the procedure?

After treatment, the skin may look red, swollen, or bruised. This usually settles within a few days, although bruising may last up to 2 weeks. Ice packs, cooling gels, and gentle skincare can help. Sun protection is essential after treatment to minimise risk of pigment change. Most people return to normal daily activities immediately, though makeup may be used to cover redness or bruising once the skin is intact.

How many treatments will I need?

The number of treatments depends on the condition and area being treated. Thread veins or small vascular lesions may clear in 1–2 sessions, while conditions like rosacea or port-wine stains often require multiple sessions (typically 3–6 or more) spaced 4–8 weeks apart. Maintenance sessions may be needed over time.

Who should not have this procedure?

You should avoid vascular laser treatment if you have a suntan, active infection, or cold sore in the area. It is not recommended during pregnancy or breastfeeding. People with certain medical conditions, those taking photosensitising medications, or individuals prone to keloid scarring may not be suitable. A consultation will assess your individual suitability.

Who can perform this procedure?

Vascular laser treatment should only be carried out by trained healthcare professionals such as consultant dermatologists or other practitioners with accredited laser training, working within a regulated clinical setting. Proper training and safety protocols are essential to minimise risks.

Will I need a consultation?

Yes. A face-to-face consultation is essential to assess your skin, review your medical history, and determine whether vascular laser treatment is appropriate. A test patch may be performed before the first full treatment to check your skin's response.

Where can I get more information?

You can find more information from:

- The British Cosmetic Dermatology Group (BCDG)

- The British Medical Laser Association
- The Joint Council for Cosmetic Practitioners (JCCP)

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