

Laser for Pigmentation

What are lasers for pigmentation?

Pigment lasers, including Q-switched and picosecond lasers, are devices designed to target areas of excess pigment in the skin. They deliver very short bursts of high-energy light that are absorbed by melanin (the pigment in skin and hair) or by tattoo ink. This causes the pigment particles to break down into smaller fragments, which are then cleared away naturally by the body. These lasers are used for treating pigmentation problems, sun spots, freckles, and for tattoo removal.

Why might I choose to have this procedure?

You may consider pigment laser treatment if you are bothered by brown spots, freckles, certain birthmarks, or unwanted tattoos. These lasers can lighten or remove areas of pigmentation and improve overall skin clarity. Picosecond lasers may achieve similar results to Q-switched lasers but often in fewer sessions and with less risk of surrounding tissue damage.

What does the procedure involve?

Before treatment, you will have a consultation to review your medical history, skin type, and goals. You may be advised to avoid sun exposure, tanning, and certain skincare products beforehand. During the procedure, protective eyewear is worn. The laser handpiece is placed against the skin, delivering very short pulses of light. You may feel a sharp snapping or stinging sensation, sometimes likened to the snap of an elastic band. Cooling may be used to improve comfort. Treatment usually lasts 10–45 minutes depending on the area. For tattoo removal, multiple colours may require different laser wavelengths in one session.

What are the benefits of the procedure?

Pigment lasers can effectively lighten or remove areas of unwanted pigmentation and tattoos with minimal damage to surrounding skin. For benign pigmentation, results are often seen after just 1–3 sessions. For tattoo removal, gradual fading occurs across multiple treatments. Modern picosecond lasers may achieve faster and more complete clearance compared to older technologies.

What are the risks and potential side effects?

Temporary redness, swelling, and darkening of pigment spots are common after treatment. The treated area may crust or scab before healing. Less common risks include blistering, scarring, and changes in skin colour (lightening or darkening). Darker skin types carry a higher risk of pigment changes. Rarely, infection can occur. For tattoos, incomplete clearance or “ghosting” of the design is possible. Eye protection is essential.

What alternatives are available?

Alternatives for pigmentation include topical creams (such as hydroquinone or retinoids), chemical peels, intense pulsed light (IPL), or no treatment. For tattoo removal, surgical excision, ablative laser or dermabrasion are alternatives but may carry greater risks of scarring. Your dermatologist will help decide the best option.

What should I expect after the procedure?

After treatment, pigmented lesions usually darken before flaking off over 1–2 weeks. Redness and swelling are common for a few days. Treated tattoos may form small scabs as the pigment fragments clear. Sun protection is essential during healing to reduce the risk of complications. Improvement is gradual, and multiple sessions are often needed for optimal results.

How many treatments will I need?

For benign pigmentation, 1–3 treatments may be sufficient. For tattoos, multiple sessions (commonly 6–10 or more) are usually required, spaced 6–10 weeks apart. The number depends on the size, colour, and depth of the tattoo and the type of laser used.

Who should not have this procedure?

Pigment laser treatment is not suitable if you have a suntan, active infection, or cold sore in the area. It is not recommended during pregnancy or breastfeeding. People prone to keloid scars, with certain medical conditions, or taking photosensitising medications may not be suitable. Your dermatologist will assess your suitability during consultation.

Who can perform this procedure?

Pigment laser treatment should only be carried out by trained healthcare professionals, such as consultant dermatologists or other practitioners with accredited training, working in a regulated clinical environment. Expertise in skin of colour and laser safety is particularly important for pigment treatments.

Will I need a consultation?

Yes. A face-to-face consultation is essential to review your goals, check your skin type, and assess the risks and benefits. A test patch may be carried out to see how your skin responds before proceeding with full treatment.

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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