BEAUTY

Before You Book a Pigmentation Laser

The evidence is uneven, so these questions help you clarify what is being treated, the likely result and the chance of making it worse.

A laser is not the starting question

You have found the clinic, studied the photographs and perhaps already imagined the dark patch fading. Then the consultation fills with device names. Before that happens, pause. The most useful question is not "Which laser?" It is "What exactly do you think this pigmentation is?"

Pigmentation simply means skin colouring. Melanin gives skin its colour, and changes in its production can make skin darker or lighter. Those changes do not all have the same explanation. Sun exposure and pregnancy can darken skin, while infections, blisters and burns can leave lighter areas. Some pigmentation disorders affect patches; others affect the whole body.

That variety matters because the laser evidence supplied here covers two limited situations: post-inflammatory hyperpigmentation and dark circles around the eyes. It does not establish that laser is effective for every brown, grey or uneven area someone might call "pigmentation." A confident recommendation should begin with a clear account of what is being treated, not merely what colour it appears to be.

Ask the practitioner to name the suspected condition and explain why laser fits it. If the pigmentation has not been medically assessed, or you have questions about a change in your skin, that is the point at which this stops being a shopping decision. It becomes a conversation with a healthcare professional about what the change represents.

Ask what is making the area look dark

This question becomes particularly important around the eyes. What looks like one problem in the mirror may have pigmentary, structural, vascular or mixed causes. In other words, the colour itself may not tell you which feature is creating the appearance.

A 2021 systematic review included 39 studies of treatments for periorbital hyperpigmentation, often called dark circles. It found that lasers were mildly to moderately beneficial for vascular and pigment types. But the review also found that different approaches suited different

underlying causes: fillers or fat grafting were most effective where volume loss was responsible, while surgery was best when excessive skin laxity was the cause.

That does not mean you should choose one of those alternatives. It means "laser for dark circles" is not a complete proposal until the practitioner explains what kind of dark circle they believe you have. Ask whether they think the main issue is pigment, blood vessels, structure or a mixture-and which part the laser is intended to change.

The review's authors also warned that high-quality evidence was scarce and that its conclusions should be interpreted selectively. So ask how certain the practitioner is about the cause, and how that uncertainty affects the result they expect. If the explanation skips directly from "dark area" to "laser," it has skipped the decision that matters most.

The evidence does not produce a simple winner; it shows several imperfect options.

Make "improvement" specific

Laser conversations can turn on a deceptively elastic word: improvement. A patch may become somewhat lighter without disappearing. If you and the practitioner are picturing different outcomes, even a technically successful procedure can feel like failure.

A 2024 systematic review of post-inflammatory hyperpigmentation gathered 41 studies involving 877 patients. This type of pigmentation follows inflammatory skin conditions and was more common in people with darker skin. Most of the cases included in the review were associated with acne, which limits how confidently its findings can be applied to pigmentation from other causes.

Among 309 patients treated with laser and energy-based devices, 18.1% had a complete response and 61.2% had a partial response. Another 18.1% had a poor response or no response. Those figures do not predict what will happen to you, but they make one point clear: partial fading was much more common than complete clearance.

Ask what the practitioner means by success in your particular case. Are they discussing complete clearance or partial change? What result would count as little or no response? Also ask whether any examples or expectations they offer concern the same kind of pigmentation you have. The evidence does not support treating every dark mark as interchangeable.

Ask plainly about getting darker

The hardest question is also the one worth asking directly: "Could this make my pigmentation worse?" In the 2024 review, post-inflammatory hyperpigmentation worsened in 2.6% of

patients treated with laser and energy-based devices-eight of the 309 people in that group.

That percentage is not a universal complication rate for every laser or every pigmentation disorder. The review combined laser and other energy-based treatments, and most included pigmentation followed acne. Still, worsening occurred. It belongs in the consultation rather than in the small print of your thinking after you have committed.

Ask how the practitioner applies that finding to your type of pigmentation and your skin. Then ask what would happen if the area became darker or failed to change. The available sources do not provide a dependable answer about a specific device, recovery plan or individual risk, so the practitioner should be clear about where evidence ends and professional judgement begins.

It is equally useful to ask why laser is being proposed instead of, or alongside, another approach. In the same review, partial responses occurred with combination treatments, topical treatments and peels as well as energy-based devices. Complete responses were unsatisfactory across the current approaches. The evidence does not produce a simple winner; it shows several imperfect options.

Take these questions into the room

Before Monday's consultation, make a one-page question list. This takes a sheet of paper and a pen-or a blank note on your phone. Put the suspected condition at the top. Under it, write: "What makes you confident this is the right diagnosis?" and "What feature is the laser meant to change?"

Next write down the outcome questions: "Do you expect partial fading or complete clearance?" "What would count as no response?" and "Is your estimate based on evidence for this same type of pigmentation?" If the area is around your eyes, add: "Do you think this is pigmentary, vascular, structural or mixed?"

Then include the uncomfortable questions: "Could this become darker?" "How does my type of pigmentation affect that possibility?" and "What would the plan be if it worsened?" Finally, ask why laser is being favoured over topical or combination treatment, and how much of that choice is supported by evidence rather than extrapolated from other pigmentation problems.

Leave space beside every question and write down the answers. You do not need to decide in the room. A consultation has done its job when you leave knowing what is being treated, what degree of change is realistic and what remains uncertain-not when you leave with a booking.

Where this comes from

- Skin Pigmentation Disorders

  MedlinePlus, U.S. National Library of Medicine · https://medlineplus.gov/skinpigmentationdisorders.html
- The effectiveness of shockwave therapy on patellar tendinopathy, Achilles tendinopathy, and plantar fasciitis: a systematic review and meta-analysis.

  Frontiers in immunology, 2023 · https://pubmed.ncbi.nlm.nih.gov/37662911/
- Treatments of Periorbital Hyperpigmentation: A Systematic Review.

  Dermatologic surgery : official publication for American Society for Dermatologic Surgery [et al.], 2021 · https://pubmed.ncbi.nlm.nih.gov/32740208/
- Physical therapy for acute and sub-acute low back pain: A systematic review and expert consensus.

  Clinical rehabilitation, 2024 · https://pubmed.ncbi.nlm.nih.gov/38317586/
- Post-inflammatory hyperpigmentation: A systematic review of treatment outcomes.

  Journal of the European Academy of Dermatology and Venereology : JEADV, 2024 · https://pubmed.ncbi.nlm.nih.gov/37843491/