



University Hospitals Birmingham
NHS Foundation Trust



Carbon dioxide (CO₂) laser treatment

Building healthier lives

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This leaflet has been designed to explain why this treatment has been recommended for you, what it involves, and the risks and recovery following the procedure.

Is CO₂ laser suitable for my scar?

CO₂ laser can be used to treat scars from many causes including burns. Many patients find it provides mild to moderate improvement of appearance, texture, itch and tightness. This is not guaranteed but it is relatively low risk and it is relatively quick and easy.

How does fractionated CO₂ laser work?

Multiple microscopic laser beams create micro holes in the scar in a grid pattern. This is believed to stimulate collagen to remodel the surface, with the hope that visually, there is a better result than before the treatment.

What anaesthetic will I need?

For smaller scars, local anaesthetic (LA) cream (EMLA) is used. This may be provided to you beforehand to apply yourself. If so, you will receive instructions about how to apply it. It takes approximately 1 hour to work. Alternatively, we inject the area with local anaesthetic (LA). Patients with big areas to treat occasionally require a general anaesthetic (GA) (be put to sleep). This will be discussed with you beforehand.

Can I eat and drink?

Most patients have the procedure under LA (cream/injections) so can eat and drink beforehand. If you are having a GA you will have fasting instructions (nil by mouth).

What will happen on the day?

You need to come to the Ambulatory Care Unit (ACU) on the ground floor (Level 0) of the Queen Elizabeth Hospital Birmingham (QEHB).

You may be sent a photography consent form, in which case, please come at an earlier date to have photos taken in Medical Photography (this department is just opposite the ACU reception and waiting area).

You will be seen by a member of the team who will check which areas you are having treated. You will be given a chance to ask any further questions and asked to sign a consent form. You will be asked to confirm your details several times as part of our routine checks.

How long will the laser procedure take?

For most procedures under local anesthetic the laser procedure takes less than 30 minutes. However, please be prepared to wait for a few hours as there are many patients on the same waiting list, and you may be towards the end of the list. To make the day of the treatment and our waiting list as efficient as possible, we ask all patients to arrive before it starts.

What can I do to prepare for the laser procedure?

- Avoid getting a tan (including fake tan) for 6 weeks before your procedure by using sunblock on exposed areas
- If you are on medications, please bring a full list to your appointment
- For face laser, please stop retinoid products two weeks prior to your procedure
- Please advise on the day of the procedure if you have a history of herpes or cold sores as you may require treatment to prevent reactivation following your laser

- If you have unstable scars or unhealed wounds please wash with a topical antimicrobial wash (such as chlorhexidine or Octenisan – your local pharmacy can advise on this) for two days before your procedure
- Take your usual medications on the day of the procedure

What should I do after my laser procedure?

- For best results, carefully follow the instructions given to you on the day of procedure
- Expect the treated area to look red for up to 6-8 weeks
- Simple painkillers such as paracetamol or ibuprofen may be required for several days
- If dressings have been applied to the area, remove these at 48 hours, or when instructed by your specialist
- After this, or immediately if a dressing was not applied, wash the area gently once a day with a mild antiseptic washing lotion (such as Dermol 500) and apply non-perfumed moisturising cream four times daily
- After facial treatments, wash gently twice a day with a non-perfumed foaming facial cleanser (such as Cetaphil) and apply non perfumed moisturiser four times each day
- The aim is to prevent the area drying out or the exudate forming a crust
- Refrain from scratching or picking at the treated area
- Do not wear pressure garments or tight clothing over unhealed treated areas
- Avoid swimming for two weeks after the procedure
- Your skin will be more sensitive to the sun where you have had laser treatment, so use sun screen that provides a protection level of SPF 50, or cover up the area to prevent sun burn and pigment changes for at least one year afterwards
- If the skin becomes encrusted or you are concerned about infection (excess ooziess from the site, or it feels warm or looks very red), please contact us

Are there any risks?

- The risks of laser treatment are very low. There will be some pain afterwards but this is usually treatable with simple painkillers such as paracetamol or ibuprofen (please always read the label)
- Some people notice no difference and are unsatisfied with the outcome
- **Colour change:** there is a small risk of permanent increased or decreased pigmentation to the skin, which is more common if you have darker skin or a tan
- **Eye damage:** special glasses are used to protect your eyes during the procedure to prevent this but the lasers we use could cause permanent loss of sight if accidentally aimed at eyes
- **Infection:** rarely, an infection occurs (see above for signs). If you have concerns and think your laser site may be infected, please contact us
- **Wound breakdown:** this is rare but may occur following any laser procedure. If you have wounds forming where you have had laser, contact us. If this happens you may have scars that are more lumpy or raised

Contact details

For any non-urgent concerns contact the Burns Secretaries on
0121 371 4884

In an emergency attend an Emergency Department (A&E), or please contact your GP who can contact the on call Burns team.

Please use the space below to write down any questions you may have and bring this with you to your next appointment.

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If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email **interpreting.service@uhb.nhs.uk**.

Burns and plastic surgery

Queen Elizabeth Hospital Birmingham
Mindelsohn Way, Edgbaston
Birmingham, B15 2GW
Telephone: 0121 371 2000
