

Pulsed-dye laser treatment

Information and advice for patients

Birmingham Regional Skin laser Centre

What is pulsed dye laser treatment?

Pulsed dye laser treatment is a treatment used to remove or lighten the colour of vascular lesions such as Port Wine Stains, Facial Red Veins, some complicated Haemangiomas, Spider Naevi, Hypertrophic Keloid scars and many others. It is also used to reduce the appearance of birthmarks that are caused by an excess of blood vessels that are bunched together or do not grow normally.

Even though most vascular lesions and birthmarks do not cause physical harm, they can make some people feel very shy or self-conscious.

The number of treatment sessions you need will depend on the problem. The consultant or specialist nurse will give an estimate of the number of sessions you may need.

What are the benefits of pulsed dye laser treatment?

The benefit of pulsed dye laser treatment is that it can remove or lighten the colour of the vascular lesion being treated and may also improve the texture. Over a number of treatments you may notice the overall appearance and redness of the skin has lightened. By improving the appearance of the lesion this can help you to feel more confident and less self-conscious.

The outcome of the treatment is different for every individual.

How does the treatment work?

The energy from the laser is absorbed by the redness in the blood vessels in the lesions, causing them to heat up. The heat destroys/damages the blood vessels which results in the colour of the lesion reducing.

What are the risks of pulsed dye laser treatment?

Skin reaction

Most patients will experience a temporary reaction to the treatment such as bruising, whitening or crusting of the treated area. However, this shows that the laser therapy is effectively breaking down the unwanted colour in the skin and will resolve itself.

Increased sensitivity to sunlight

After laser treatment your skin will be very prone to sunburn for up to 6 months so it is important that you use sun protection for this period.

Changes in skin pigment (colour)

Changes in the skin pigment (colour) can occur in between 3 and 27 out of 100 people who have this treatment. The skin can become lighter or darker.

- Darkening of the skin (also known as post inflammatory hyper-pigmentation) is the most

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common change to the skin colour and is more likely to occur in people who have darker skin. Hyper-pigmentation will usually fade naturally in the next 6 months.

- Whitening of the skin (hypo-pigmentation) can also occur. This only occurs in 1 out of 100 patients but can be permanent.

Scarring

1-5 in 100 people develop a scar in the area that has been treated. Scarring rarely occurs on the face but can occur in the area around your ankles if this area is treated and you have varicose veins.

Are there any alternatives to this treatment?

Medications may be an alternative treatment option for some patients. You may also find counselling or support groups helpful.

Another alternative may be to conceal or camouflage the mark with special covering creams or make-up. You can go to the Changing Faces website for advice on skin camouflage creams and services.

What will pulsed dye laser treatment feel like?

Most people feel some discomfort during the treatment, which they describe as being like 'a warm elastic band hitting your skin', but most do not find it too painful. If you are concerned about this you can talk to the consultant about using a local anaesthetic cream to numb the area and they can give you a prescription for this.

Some children find the procedure too painful even with a local anaesthetic and may need their treatment under a general anaesthetic (where they are put to sleep), especially if a large area is being treated. If you or your child are having a general anaesthetic you will be given more information about the risks of this.

Preparing for pulsed dye laser treatment

- A test treatment will be carried out on your skin to check how it reacts. If the results are satisfactory and there are no concerns you will be seen after 4 - 8 weeks for the treatment.
- Pulsed dye laser treatment cannot be performed if you have a suntan. If you have a tan this must be allowed to fade before having the treatment.
- Please purchase Aloe Vera gel and sun block (SPF 30 at least) as you will need to use these after your treatment to protect your skin and help it to heal.
- If you have arranged with your consultant that you will use anaesthetic cream you will

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need to come to the hospital 1 hour before your appointment to have this applied and allow it time to work.

- Remove all make-up, creams and perfume before the treatment. Skin wipes are available in the clinic for you to use.

During the treatment

The treatment will be carried out by a consultant or specialist nurse and the amount of time each session takes will depend on the problem. This is what happens:

1. If you have had local anaesthetic cream applied this will be removed from the surface of your skin. You will also be asked to remove any make-up, perfumed products, jewellery and piercing's from around the area being treated.
2. You will be asked to wear a pair of goggles to protect your eyes from the laser.
3. The consultant/nurse will set the laser to the relevant settings.
4. The laser will be directed to the area being treated using a hand-held device which is gently pressed on your skin.
5. You will feel a cool spray and the laser will then deliver brief pulses of light.
6. When it is safe to do so the consultant/nurse will ask you to take your goggles off.
7. Aloe vera gel is then applied to the treated area to cool and soothe it

After the treatment

You will be able to go home straight after the treatment. When you are at home it is important to follow the advice below. The area that has been treated will develop bruising that lasts for 7 – 14 days. The bruised area often darkens for 1-2 days after treatment but this is normal.

Caring for the treated area

- The skin does not usually break after treatment but it is important not to pick at it even if some crusting develops.
- Apply Aloe Vera gel as regularly as you wish to the treated area with clean hands. This will cool and soothe your skin and help it to recover.
- If you experience any pain or discomfort after treatment you can relieve this by applying ice packs and Aloe Vera gel to the area. If this is not effective enough you can take Paracetamol.

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- Avoid using any soaps or perfumed products on the treated area for 48 hours after treatment.
- Avoid hot baths and showers, saunas and swimming for 24 hours after treatment.
- You can apply make-up over the treated area and wash the skin, as long as this is done gently.
- Avoid exposure to the sun and ultraviolet light by covering the area with clothing and applying sun block with an SPF of 30 or above every day in between treatment sessions and for 6 months after your last treatment.

Your next appointment

Your next appointment will either be booked before you leave the centre or you will be sent an appointment through the post. After your final treatment you will not need to come back for a follow-up appointment.

Symptoms to report

Check your skin regularly for any problems with healing or skin pigmentation changes and contact us if you are concerned.

Contact details

If you have any questions or concerns about this treatment please contact:

Birmingham Regional Skin Laser Centre

0121 507 6637/6639/6636

Monday – Friday, 8.30am – 4pm (except bank holidays)

Further information

For more information about our hospitals and services please see our websites www.swbh.nhs.uk and www.swbhengage.com, or follow us on Twitter @SWBHnhs and Facebook www.facebook.com/SWBHnhs.

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Sources used for the information in this leaflet

- Cochrane Collaboration, 'Lasers or light sources for treating port wine stains', 2011
- American Family Physician, 'Management of keloid and hypertrophic scars', August 2009
- Journal of the American Academy of Dermatology, March 2006, 54(3): 487 – 93, Evaluation of the treatment of port-wine stains with the 595-nm long pulsed dye laser: a large prospective study in Japanese adults
- S.W. Lanigan, 'Lasers in dermatology', 2000

If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5420 or email: swb-tr.swbh-gm-patient-information@nhs.net



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