Portwine stain birthmarks
Welcome to the Bristol Laser Centre

We are part of the Plastic Surgery Department at North Bristol NHS Trust and were set up in 1992 as one of the first UK centres to offer skin laser treatments.

We treat patients from all over the South West area, both private and NHS referrals. All our staff are fully trained doctors and nurses who have received specialist training in skin laser treatment. A variety of lasers are available for different skin conditions.

We also provide non-laser treatment via our camouflage clinic and Outlook clinic offering emotional support and counselling services.

What is a portwine stain?

A portwine stain is a birthmark that may look pink, red or purple in colour. It is made up of many layers of blood vessels, which are larger than they should be, and near to the surface of the skin. It is the blood flowing through these blood vessels that causes the colour.

The birthmark can occur anywhere on the body, it can be any size and it will grow in proportion as the body grows. Over time a portwine stain may darken, thicken, and/or develop small surface lumps.
What has caused it?
The cause is unknown. It is not inherited from either parent, nor is it caused by anything related to the mother in pregnancy. No parent should feel responsible for these birthmarks. It occurs in an estimated three children per thousand births.

What is laser therapy?
The laser is a very powerful energy source that produces a very bright light. By controlling the colour, energy and direction of the laser it is possible to heat the blood in the vessels. This damages them and causes them to shut down.

How successful is treatment?
Most portwine stains fade with laser treatment, but they are rarely completely removed. Some portwine stains also reduce in size with treatment.

Occasionally these marks do not respond at all to laser treatment. In some people the fading is only temporary and the colour may return in time. Further treatment may then be required.

What are the possible side effects?
The risk of side effects is low. The treatment can occasionally cause the normal pigment in the skin to decrease or increase. This means a pale or dark mark where the treatment has been. This usually returns to normal but can take a long time to do so. Very rarely a scar can occur in the treated area. Side effects are more common if the skin is tanned when treated, so you should wear sun block on the area before treatment begins and during the course of treatment.
Which laser will be used?
We use a pulse dye laser for fading portwine stains. We also have a long pulsed Nd:YAG laser that can be used for certain conditions. The first treatment usually consists of several test patches at different power levels. At your next appointment we will decide which settings suited you best.

What does the laser feel like?
The pulse dye laser feels like a rubber band being snapped at your skin. Most people find it uncomfortable but not painful.

What pain relief is available?
Many people find they do not need any pain relief. A skin cooling device is used to reduce discomfort. Local anaesthetic creams are available if needed.

Who will treat me?
At your first appointment the specialist doctor will assess you and discuss treatment. This will give you a chance to consider all the factors involved. You may have a test treatment on the same day. Only experienced doctors and laser nurse specialists who have received specialist training will treat you.
How can I prepare for treatment?

**It is very important that your skin is as pale as possible before treatment. You should not have a suntan or use sun beds, false tan or ‘holiday skin’ moisturisers.**

You must protect the area from the sun before and during the course of treatment by using sunblock or keeping the area covered. If your skin is dry, use a plain moisturiser over the area. If the stain is in a very hairy area, you may be asked to shave your skin.

**Some medication and herbal remedies make your skin more sensitive to lasers. Please bring a list of your medicines to your assessment and tell us each time your medication changes.**

What happens after treatment?

The pulse dye laser leaves purple bruises over the treated area, which last for about a week. Your skin may feel hot and sore, but this does not last long. You may get some swelling over the treated area, and it may itch. Little aftercare is necessary. You will be given written instructions on how to care for the treated area.

How many treatments will I require?

It depends on the size and position of the birthmark. Most portwine stains require at least 10 treatments for maximum fading. Treatments are spaced at least 8 weeks apart. Unless the area is very large the whole area can be treated at every appointment.
**Are photographs necessary?**

We require photographs of the area to be treated before you start a course of treatment and at intervals during your treatment. This helps us to monitor your progress and any side effects of treatment. You can request a photographer of the same sex as yourself if you wish.

**Do I have to have treatment?**

No. Only you will know if fading your birthmark will be of benefit to you.

**How can I make an appointment?**

The Laser Centre offers both an NHS and private service. For NHS patients, a referral letter from your GP or hospital consultant with funding approval is required before an appointment can be arranged. A referral letter may not be necessary for private treatment. Some treatments are only available privately. Staff at the centre can give you further details.

**Other support**

Sometimes people find these marks distressing, and other people’s reactions can be difficult to deal with. We can put you in touch with organisations that can help. We also offer a service called ‘Outlook’, which offers counselling to adults and children.

You may wish to consider using camouflage cover as well as, or instead of, laser treatment. A camouflage make up service is available at North Bristol NHS Trust.
Reference
If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

© North Bristol NHS Trust. This edition published November 2016. Review due November 2018. NBT002016