



Alder Hey Vascular Birthmark Centre

Laser Treatment for Capillary Malformation (Port Wine Stain)

Information for parents and carers

Introduction

A capillary malformation is a collection of abnormal blood vessels in the skin. Although the cause of this condition is not fully understood, it is most likely to be due to a difference in how the blood vessels are formed during early development before birth.

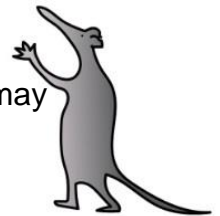
What are the treatment options?

The most effective way of decreasing the colour of the malformation is laser treatment.

Skin camouflage can be useful, particularly on exposed areas such as the face. It may not be practical to apply in young children but this can be discussed with our camouflage nursing team. Surgery is not usually an option in the treatment of capillary malformations.

What will happen if the port wine stain is not treated?

It is possible that the port wine stain will darken and thicken in adulthood and this risk may be reduced if the malformation has been treated in childhood.



When would treatment start?

We usually start treatment at about one year old when the risk from general anaesthesia is reduced. Some parents or carers prefer their children to have treatment without anaesthetic and this can be commenced from the age of six years. There is some evidence that treatment is more successful in younger children as the blood vessels are closer to the surface.

What is laser treatment?

Laser treatment involves a specific light source that targets the blood vessels in the skin. The light source heats up the blood causing damage to the abnormal vessels. Laser treatment aims to lighten the colour of the port wine stain. Usually treatment is given at six to eight weekly intervals. A break of six months is given after four treatments under general anaesthetic. Your child will be assessed at each clinic appointment to see if further treatments would be helpful.

How successful is laser treatment?

Each child responds differently to laser treatment. After laser treatment, there is usually lightening of the colour of the port wine stain. The end results vary between children and on different parts of body. In general, port wine stains on the face responds better than those on the limbs.

Will I need to do anything special before treatment?

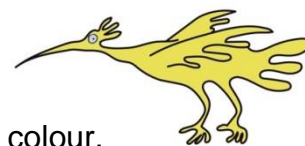
You will need to use a high factor sunscreen on the area to be treated. If your child has a tan, the treatment will be delayed.

Please make sure your child has no sunscreen or moisturiser on their skin on the day of their treatment and please use water rather than wipes to clean the skin before treatment.

Will my child need an anaesthetic?

In younger children, laser treatment is generally carried out under general anaesthesia.

In older children, treatment may be possible without anaesthetic or with Entonox (a pain relieving gas that the child breathes). The suitability of each treatment will be tailored to the age and maturity of your child.



What are the side effects of laser treatment?

Immediately after treatment, the treated area will bruise, and has a blue-black colour. There may also be some mild swelling of the area treated. This takes about seven to ten days to resolve. There is a small risk of blistering that can sometimes result in a scar. Laser treatment can occasionally lead to pigmentation change to the treated area of skin.

What is the aftercare after laser treatment?

You will need to keep the area clean, dry and well moisturised. The area is usually not very painful after treatment but if the pain worsens after 48 hours or becomes red again, please contact the Laser team.

Simple analgesia i.e. paracetamol could be given if necessary as could aloe vera gel which can be kept in the fridge for extra cooling.

Your child will need to use a high factor sunscreen (SPF 50+) to the affected area if spending time outside whilst undergoing laser treatment as having a tan (real or fake) can increase the risk of laser side effects.

It is better to avoid hot baths or showers for 48 hours after treatment, and please avoid swimming for a week as chlorine dries the skin.

Contacts

For further information, please contact:

Laser Nurses email: laser@alderhey.nhs.uk – we aim to reply within 2 working days

Miss Breuning's secretary: 0151 252 5386 / 5510



References

Vascular Anomalies: Classification, Diagnosis and Management. Arin K Greene. Quality Medical Publishing, Inc St Louis Missouri 2013

Br J Dermatol.1998 May;138(5):821-5. Facial port wine stains in childhood: prediction of the rate of improvement as a function of the age of the patient, size and location of the port wine stain and the number of treatments with the pulsed dye (585 nm) laser. Nguyen CM1, Yohn JJ, Huff C, Weston WL, Morelli JG
Br J Dermatol.1998 May;138(5):821-5.

This leaflet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this leaflet alone for information about your child's treatment. This information can be made available in other languages and formats if requested.

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