



Laser Treatment for Skin Conditions

Laser therapy is used to treat vascular birthmarks, including:

- port wine stains
- hemangiomas
- spider veins
- pigmented birthmarks (such as nevus of Ota)

Laser therapy is a treatment that uses light energy to treat growths and skin conditions. Some skin conditions involve having too many blood vessels, swollen blood vessels in one area, or an increase in color (pigment). The laser uses a specific beam of light to target and destroy blood vessels and pigment in a fraction of a second.

What skin conditions can be treated with laser therapy?

Port wine stains

A port wine stain is a birthmark in which an increased number of swollen blood vessels create a reddish purple discoloration of the skin. More blood flows through this skin and so it appears redder than the skin around it. It is not a cancer and does not turn into cancer. The cause is not known.

Pulsed dye laser therapy works well for many port wine stains. It helps to lighten the color and prevent darkening and thickening that may happen over time. Stains on the face and neck often respond better than ones on the arms and legs. The laser works better for lighter port wine stains, but the darker purple marks can also be treated.

Hemangiomas

A hemangioma is a growth of blood vessels in the skin. Hemangiomas grow during the first year of life and then slowly shrink over time. They can sometimes break open, creating an ulceration. Pulsed dye laser treatment works well on the bright red (superficial) hemangiomas and hemangiomas with ulcerations.

Spider veins

Spider veins (telangiectasias) are enlarged blood vessels that can occur almost anywhere on the skin. They are common in areas of the skin that are exposed to the sun. Sometimes they can happen from an injury or other medical problems. In most cases, however, they simply happen and the cause is unknown. Pulsed dye laser treatment also works on spider veins.

Nevus of Ota

Nevus of Ota is a bluish gray over-coloring (hyperpigmentation) of the skin. This is from more color (pigment) producing cells in the deeper layers of the skin than usual. The cause is not known. Q-switched Nd Yag laser treatment can work well at lightening the color of the nevus of Ota and may prevent it from thickening or darkening over time.

What can we expect with laser therapy?

The laser often makes the area treated look bruised or darker after the treatment. This usually fades in 1 to 2 weeks, and then there will be gradual lightening of the area treated over the next 1 to 2 months. There may also be swelling or sometimes blisters after the treatment that can last for a few days.

The area of the skin that can be treated by laser at any one time depends on the size and location of the birthmark. For large lesions we may do a test treatment to decide what intensity of laser will give the best results.

Your child will most likely need multiple laser treatments. Port wine stains cannot be removed in just one treatment. There is no guarantee that laser treatments can completely clear the area being treated. Some people need more treatment than others. We usually wait 1 to 2 months between treatments on the same area.

However, untreated tissue next to these areas can be treated sooner. Port wine stains can sometimes darken again over time and may need repeat treatments (sometimes once or twice a year) to keep them as light as possible.

What are the risks of laser treatment?

The risk of scarring is less than 1 percent. The pulsed dye laser may cause a brownish discoloration of the skin. This comes from the hemoglobin released from destroyed blood vessels. This usually gets better with time and fades away within a few months. Sometimes the area treated can blister. Scars that look like tiny pits and loss of pigmentation can also happen, but these are very rare.

How does laser treatment feel?

Most patients say the laser feels like a brief sting (like an elastic band snapping against the skin). Children often need a form of anesthesia or sedation. We treat smaller port wine stains, hemangiomas and spider veins in the clinic using a numbing cream on the skin. Children with larger lesions often need to be treated in the operating room under general anesthesia. We will talk with you to decide what is the best option for your child.

Where is laser treatment done?

Outpatient laser surgery is done at the Seattle Children's Bellevue Clinic. The laser treatments done under general anesthesia are performed in the operating room at the main hospital in Seattle.

To Learn More

- Dermatology
206-987-2158
- Vascular Anomalies
Clinic 206-987-4606
- Ask your child's
healthcare provider
- www.seattlechildrens.org

Free Interpreter Services

- In the hospital,
ask your child's nurse.
- From outside the
hospital, call the
toll-free Family
Interpreting Line
1-866-583-1527. Tell
the interpreter the
name or extension you
need.

Will laser treatment be covered by insurance?

Having laser treatment covered by insurance depends on your insurance plan. Most insurance plans will assess the treatment of a port wine stain or vascular abnormality to see if it is medically necessary or a cosmetic procedure. If it is found to be medically necessary, it is often covered by insurance. If it is seen as a cosmetic procedure, it may not be covered. Insurance plans look at 3 things about the lesion to make this decision:

- How big it is
- Whether it affects your child's ability to do everyday tasks (function)
- The risks of not getting treatment

For cosmetic treatments you pay for, Seattle Children's offers a 25% discount for services not covered at all by insurance. If you have concerns about costs for medically necessary procedures, you may qualify for financial assistance. Visit www.seattlechildrens.org/financialassistance or call 206-987-3333 to speak with a financial counselor. Seattle Children's Financial Assistance Program does not cover cosmetic procedures.