

Information for Patients

Panretinal Laser Treatment

This is a type of laser treatment applied to the retina (light sensitive layer of the eye). Laser surgery is performed to reduce the risk of vision loss and stabilise the vision, rather than to improve any vision that has already been lost.

Why do I need this?

There are a number of conditions which can affect the blood vessels in the retina.

These include:

- Diabetes
- Blockage of the vein
- Uveitis (inflammation)

These conditions can reduce the blood flow in the retina. The eye tries to compensate for this by producing some new blood vessels. These are very thin and fragile and can bleed into the eye cavity. This is when you notice a drop in vision. This can be detected early by special tests and treatment can be started before you notice a drop in your vision.

In advanced cases, especially in patient with diabetes, scar tissue can pull the retina away from the back of the eye causing a tractional retinal detachment.

Abnormal blood vessels can also increase the pressure within the eye (rubeotic glaucoma).

How does it work?

The laser creates small heat burns on the retina. This helps to reduce overall oxygen demand and indirectly causes the abnormal blood vessels to shrink. The number of laser burns needed can vary from a few hundred to 2500 - 3500 at a time. You may need two or three sessions in the beginning.

What happens on the day of treatment?

The laser treatment is carried out in the outpatient clinic. You should not drive on the day of your appointment. The whole appointment can take 2 to 3 hours including waiting times.

When you arrive your vision will be tested and then dilating drops put in your eyes. When you are ready, the eye doctor will take you to the laser room.

You'll be asked to sit at the laser machine, or in some cases, lie on a reclining chair. You will have some numbing drops put in your eye so that a special contact lens can be put on your eye. This will enable the doctor to see the back of your eye and also prevent you from blinking.

As the laser is applied, you will see many bright flashes of light. The treatment is not painful but can cause some discomfort. The procedure typically takes 20-30 minutes to complete. It is important that you stay as still as possible as we want to avoid treating the wrong area, as the laser leaves a scar, we do not want to treat an area that is unaffected. If at any time you want the doctor to stop, please tap on the table.

What happens after the treatment?

Your vision will be dazzled for some time. You may wish to bring a pair of sunglasses, as your eye may be sensitive to bright light. You must not drive on the day of laser treatment. No other special precautions need to be taken after the treatment. It usually takes 4-6 weeks to assess the response, and further treatment may be required.

What are the side effects?

Pan-retinal laser is generally very safe. The risks include:

- You need to inform the DVLA if you are having this type of treatment to both eyes even if you don't have any problems as a reduction in field of vision/side vision can occur following this type of treatment. Most people don't notice a problem, however, in severe cases this may affect your ability to drive.
- Possible reduced night vision or a reduction in colour vision.
- Small risk of vision getting worse.
- Laser can occasionally cause some inflammation in the eye which leads to scar formation or swelling in the central retina that can affect vision.
- On rare occasions, the eye can become red and painful.
- Bleeding can occur if the abnormal blood vessels don't regress.
- Looking directly at the Laser beam can cause damage to the central retina.
- Glare - difficult to see clearly in bright light.
- Pain; this type of laser is not a painless procedure. You may feel some discomfort. Please take pain relief medication for example Paracetamol if you are in any discomfort.

How successful is it?

PRP laser will prevent severe sight loss in 90% of cases. In most cases, it will be able to save your reading and driving vision.

What happens if I don't have the laser?

If left untreated, severe vision loss, and even blindness can occur.

What other treatments are available?

- Intravitreal Injections: These are injections into the eye. Your doctor will advise you if you require this treatment.
- Risk factor control: It is important that if you have any risk factors like diabetes, blood pressure and cholesterol you keep these as well controlled as possible. It is also advisable to cut down/stop smoking

Where can I find more information?

www.nscoretinopathy.org.uk

www.diabetes.org.uk

www.nhsdirect.nhs.uk

www.nib.org.uk

What should I do if I experience any problems?

If you have any problems following the laser treatment or any questions on anything contained in this information leaflet, please contact a member of staff in Clinic Eye D on (0161) 276 5543 Monday – Friday 8.00 am – 5.00 pm.

If your problem is urgent and the department above is closed or you are unable to get an answer, please contact Ward 55 through the hospital switchboard (0161) 276 1234. They are available 24 hours every day.

