

Pan-retinal Photocoagulation Laser Treatment (PRP)

Information and advice for patients

Birmingham Midland Eye Centre (BMEC)

What is Pan-retinal Photocoagulation Laser Treatment (PRP)?

Laser is a very focused light beam on to an area of the eye. There are different types of laser depending on which part of the eye is to be treated. PRP Laser treatment is done with lasers which are effective on the retina.

Why am I offered PRP Laser Treatment?

Various conditions (e.g. Diabetes, Vascular obstruction) can affect the amount of blood supply to the retina (light sensitive layer at the back of the eye) which in turn produces some special chemicals. These chemicals can cause new blood vessels to grow in the retina or over the coloured part of the eye or in the drainage system within the eyeball. These new blood vessels are very fragile and they bleed inside the eye. This can cause severe permanent damage to the eye and in some cases even blindness. PRP Laser Treatment is usually offered when these new blood vessels have developed.

What are the benefits?

There is good scientific evidence that this laser treatment causes changes in the retina which reduces the special chemicals responsible for the abnormal new blood vessels to grow. This prevents growth of these new blood vessels and encourages the existing vessels to shrivel and scar up. This in turn, prevents them from bleeding into the jelly at the back of the eye (vitreous haemorrhage) or to increase the pressure within the eye (neovascular glaucoma) and reduces the risk of blindness.

Will this improve my vision?

The aim of the treatment is not to improve the vision, but to prevent any visual loss. Please note that the treatment only reduces the risk of bleeding and does not eliminate the risk altogether.

What are the risks?

This treatment usually will cause some damage to your peripheral vision. About half of the patients treated notice some difficulty in their night vision. About one in five patients will notice some loss of peripheral vision and generally the more laser you need, the chances of these side effects increase. This in turn can affect your ability to drive and you may not meet the visual legal requirement for a driving license. As this treatment could affect your license to drive a vehicle, you could discuss this further with your Ophthalmologist. If you have laser treatment to both eyes you need to inform the DVLA (Driver and Vehicle Licensing Agency).

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Other side effects could be a build-up of fluid at the back of your eye and extremely rarely accidental laser to the centre of the retina. All these can sometimes result in a temporary or longstanding decrease of vision.

What are the risks of not having the treatment?

If no treatment is done, then the new blood vessels that have developed are very fragile and they bleed inside the eye. This can cause severe permanent damage to the eye and in some cases even blindness.

Are there any alternatives to this treatment?

Currently Laser PRP is the only treatment available for your eye condition and there is no alternative treatment available.

Consenting for the procedure

The doctor, who advises you about the procedure, will explain the details of the treatment and get you to sign the required consent form for the procedure. You will be given a copy of the consent form with all the discussed risks and benefits of the procedure after your signature.

Preparing for the operation

We strongly advise you not to drive to and/or from your appointment, as you will need to have dilating drops applied in the eye. These drops do blur your vision for up to four to six hours after the treatment.

It is a day procedure and we suggest to bring someone with you. As the bright laser light dazzles you, we advise you to have a pair of sun protective eye wear (prescription) with yourself.

We also recommend you to take all your medications prior to this treatment as normal.

You do not need to fast for the procedure unless specifically advised. We advise patients who have diabetes to ensure they have enough provisions for food and medicines as needed.

PRP laser involves multiple light burns to the retina. This can often need more than one session to complete. The total procedure usually takes 15-30 minutes, depending on the number of burns intended.

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What happens on the day?

Usually the laser rooms are specifically designated in the Out-patients clinic at the Birmingham Midland Eye Centre. The nurse will direct you to the seating area. Sometimes, the treatment is carried out in the Operating Theatre.

A nurse will check your vision and instill the dilating eye drops, which will blur your vision for four to six hours. These drops help your doctor to examine the area to be lasered.

Usually a local anaesthetic drop or sometimes, an injection may be given before the laser treatment.

The laser is applied by either by a microscope similar to the one used in clinic by the Ophthalmologist/Optician to examine your eyes or by a special instrument worn by the surgeon around the head. A contact lens with an ocular lubricant is often used to view the retina better.

After the treatment

Following the treatment, you can go home after few minutes.

You are advised to avoid driving for 24 hours after the treatment.

Slight discomfort or a dull ache in the eye after the treatment has been reported and pain relief medications are suggested as per personal requirement/suitability.

You could experience dazzling or darkening of vision up to 24-48 hours after the procedure.

A further session of PRP laser or a clinic review appointment will be arranged to assess the need for further laser or the response to the laser treatment.

Follow-up

If there is any persistent ocular pain for more than a few hours or there is an acute drop in your vision, please ring the Eye casualty, Birmingham and Midlands Eye Centre for advice/urgent appointment for assessment.

Phone number: 01215076780

Monday to Friday: 8.30am – 7pm

Saturday: 9am – 7pm

Sunday and Bank Holiday: 9am – 6pm

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Contact details

Outpatient Department Manager

Phone number: 0121 507 6754

Monday – Friday: 9am – 5pm.

Further information

You can find more information from the sources used in this leaflet.

Sources used in this leaflet:

- National Institute of Blind People (RNIB) (2016), Eye conditions related to Diabetes (online): Accessed on December 2016: <http://www.rnib.org.uk/eye-health-eye-conditions-z-eye-conditions/understanding-eye-conditions-related-diabetes>
- National Eye Institute (NEI) (2015), Facts About Diabetic Eye Disease (online): Accessed on December 2016: <https://www.nei.nih.gov/health/diabetic/retinopathy>

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

If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5303 or email: swb-tr.swbh-gm-patient-information@nhs.net



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