

Pan Retinal Photocoagulation (PRP) - Laser Treatment

Important information for patients

You have been diagnosed with abnormal blood vessels developing in the retina (light sensitive inner layer of the eye) as a complication of your retinal condition. These abnormal vessels may rupture and bleed inside the eye causing scar tissue, retinal detachment and loss of vision.

For this reason, when new blood vessels are seen, a laser procedure called Pan Retinal Photocoagulation (PRP) is usually recommended. This treatment stops the retina from producing new blood vessels to grow. If the treatment is successful, the new vessels shrink and disappear over a few months.

When new vessels are first detected, your vision may be very good and you may not have noticed any changes to the way you see. This is because, in the initial stages, new vessels have very little effect on the vision. After the treatment your vision may be different, for example your peripheral vision may be quite poor. You may feel that the laser has made your sight much worse. The difficult issue is that, if left untreated, the new vessels will soon bleed and cause serious loss of vision. The laser treatment is the best option for preventing this.

It is important to remember that laser treatment aims to prevent your vision from getting worse. It cannot make your vision better. The goal of PRP Laser is to prevent further loss of vision, not to improve vision.

What to expect on the day

Your treatment will be performed in a specially equipped laser room in the Eye Care Centre. It is performed by focusing a laser light into the eye. You will have eye drops to enlarge your pupils so that your eye specialist can look into your eye.

Your eye is then numbed with drops and a small contact lens is put onto your eye to stop blinking. During the treatment you will be asked to move your eyes in certain directions and you will be able to do this easily with the contact lens in place. You may feel an occasional sharp pricking sensation when certain areas of your retina are being treated.

Treatment takes approximately 15 to 30 minutes per eye. You will not have an eye pad or any drops after treatment. Your vision will be blurred immediately after the treatment, but will recover to the pre-treatment level the next day. Rarely, your sight can take longer to return to normal.

If you have a lot of treatment on your eyes, it can cause them to ache. Over the counter painkillers, such as paracetamol, should help ease the pain.

You should have someone drive you home. Most patients resume activity within a few hours. Several sessions are sometimes required to complete the course of treatment. Until the new vessels have gone, regular follow-up visits are required.

Does laser treatment have any side effects?

No treatment is free from some side effects, but the risks to your vision of laser treatment are far fewer than the risks of not having laser treatment.

The short-term effects of the laser treatment are due to the brightness of the laser. It can cause a temporary reduction of sight which may last an hour or two after the treatment. You may also lose a little central vision which may improve with time or notice the after effects of the laser as small black spots in your vision.

The more extensive pan-retinal treatment can have more lasting effects on your vision. It is quite common to lose some vision to the sides (peripheral vision) and this may affect your ability to drive safely.

Night and colour vision may also be affected. Occasionally your central vision may not be as good as before so that, for example, print is not as easy to read. The possible side effects of treatment depend on your eye condition and the extent of treatment.

If you drive and have had laser treatment in both eyes or your one remaining eye, you must inform the Driver and Vehicle Licensing Agency (DVLA). They may ask that you have a detailed eye examination to make sure your central and peripheral vision are good enough for safe driving.

If you have any concerns after your treatment, please contact the Hospital Switchboard on 01270 255141 and ask for the Bleep holder in the Eye Care Centre.

This information is available in audio, Braille, large print and other languages. Please telephone 01270 612209 for a copy.

The Eye Care Centre, Leighton Hospital, Middlewich Road, Crewe, Cheshire, CW1 4QJ. Direct Line: 01270 612209.

Reference - RCOphth RNIB Understanding Diabetes Booklet.

Reviewed by Readers' Panel.

Printed October 2019 Review October 2021 Ref: SC/ECC/0481019