Ophthalmology

Laser Treatment for Diabetic Retinopathy

Eye problems are common in diabetes and can, in some cases, seriously affect vision. **Laser treatment** is very effective in preventing loss of vision. Best results are achieved if laser treatment is applied before any vision is lost.

Laser treatment rarely restores vision. A small number of patients lose vision despite timely laser treatment.

There are two types of sight threatening diabetic retinopathy:

- Diabetic Macular Oedema
- Proliferative Diabetic Retinopathy

Diabetic macular oedema

Diabetes causes blood vessels near the centre of the retina (macula) to leak fluid. The retina becomes water logged (oedematous). This causes gradual loss of vision. Laser treatment causes the retina to dry out, thus preventing loss of central vision.

Possible side effects of macular laser treatment:

- Small ‘blind spots’ near the centre of vision
- Reduction in colour vision
- Rarely, some permanent loss of central vision

Proliferative diabetic retinopathy

Diabetes causes small retinal blood vessels to block and the retina is starved of blood. Abnormal blood vessels then grow on the retina. This can lead to permanent loss of vision from bleeding into the eye, retinal scarring and retinal detachment. Laser treatment is usually highly effective in preventing this loss of vision if done before visual loss occurs.

Possible side effects of treatment for proliferative diabetic retinopathy:

- Poor night vision and reduced colour vision.
- Reduction in peripheral vision. In some cases this can be severe enough to prevent you holding a driving licence (80% of patients retain driving vision).
- Permanent loss of central vision from a laser burn inadvertently hitting the centre of the retina. This is very rare.

Treatment

- The treatment is performed while the patient is sitting at an instrument that is used to examine the eyes.
- Drops are put in to dilate the pupil and anaesthetise the eye.
- A contact lens is placed on the eye to focus the laser beam and minimise eye movement.
- Very brief intense bursts of light are shone into the eye.
- Some patients find laser treatment uncomfortable. In some cases, a local anaesthetic injection renders the procedure pain-free. Several treatment sessions are required.
- After laser treatment, the vision will be blurred. This normally clears in a few hours, but may last a few days if extensive treatment is required.
- Please **do not drive until your vision has recovered.**
- Occasionally, there is some pain after the treatment. Common pain relief tablets will help.

Follow up

Patients are reviewed from two to six months after treatment. Several sessions of laser treatment are frequently required. Most patients retain good vision following laser treatment, but regular review is advisable as severe retinopathy can occasionally recur. This is unlikely with good control of blood sugar and blood pressure.

General advice

Good control of blood sugar and blood pressure is very important in preventing loss of vision from diabetic retinopathy.

If you have severe pain after laser treatment, or have any other questions, please contact the ophthalmic nurses on 01223 217778.

More information can be found on these websites.
www.diabetes.org.uk
www.rnib.org.uk
www.nhs.uk/conditions/diabetes/

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Document history

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