



York Teaching Hospital  
NHS Foundation Trust

# Retinal Laser in Diabetic Retinopathy

Information for patients, relatives and carers

## Ophthalmology Department

① For more information, please contact:

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Wigginton Road, York, YO31 8HE

Tel: 01904 726758

Or

Eye Clinic, Scarborough Hospital  
Woodlands Drive, Scarborough, YO12 6QL

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Depending on where you are being treated

Caring with pride

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## **Retinal laser in diabetics**

Retinal laser treatment is administered in out-patients. You will sit at a machine similar to the microscope you sit at during the examination of your eyes by the doctor. The laser treatment can take between 10 to 20 minutes.

Before treatment, you will be asked to sign a consent form (reference FYCON88-3 Focal and grid laser or FYCON90-3 Pan retinal laser). This is where you show you understand what is to be done and confirming that you wish to proceed. Make sure that you discuss any concerns and to ask any questions you may have before signing the form. The form will be kept in your Patient Notes and you will be given a copy for your own records.

## **Focal and grid laser**

In diabetic eye disease there can be leakage from blood vessels around the macula (macula oedema), which is the area of the retina, which is responsible for fine vision. This leakage causes thickening or oedema of the retina and can reduce your central vision.

## **What are the benefits of having focal and grid laser treatment?**

It has been shown that laser treatment to this area of leakage can reduce the risk of moderate visual loss by half (50%) at three years. However, there is a possibility that the laser treatment may not help.

In some patients laser is unsuitable due to the very central location of leakage and in these patients other modalities of treatment involving intravitreal drugs may be offered. The central retinal thickness has to be over 400 microns for the eye to be eligible for anti-VEGF injections under the NHS.

In some cases laser may reduce the need for injections when the leakage is off centre.

## **Are there any risks from having focal and grid laser treatment?**

- A central burn causing reduction or loss of central vision
- An enlarging laser scar causing a blind spot in the central vision
- A choroidal neovascular membrane formed by blood vessels growing from the deeper choroid into the retina around the laser scars (less than 1 in 100 cases)
- Fibrosis
- A small risk of failing the DVLA driving field

Many patients require more than one treatment and often up to three or four treatments. Patients are reviewed at approximately three to four months after this type of laser treatment.

## **Panretinal Laser**

In diabetic eye disease there can be growth of new blood vessels. These blood vessels are not healthy and do not help the circulation in the eye. They can cause several problems including vitreous haemorrhage, raised intraocular pressure and most significantly, severe loss of vision.

## **What are the benefits of having panretinal laser treatment?**

By carrying out laser treatment on the peripheral retina it has been shown that the risk of severe visual loss can be reduced by half (50%) at two years.

## **Are there any risks from panretinal laser treatment?**

This laser treatment is not a guarantee that the new vessels will disappear or that visual loss will be prevented. There are potential side effects from this type of laser treatment:

- Haemorrhage
- Macula oedema in 19 out of 100 patients
- Transient loss of vision in 10 out of a 100 patients
- Loss of visual field
- Difficulty in adapting to the dark and night vision
- 10 to 40 out of 100 patients may fail DVLA tests after bilateral panretinal laser
- Fibrosis of the retina
- Inflammation

Patients often need more than one treatment session and will be reviewed approximately one month after the laser treatment.

## **Tell us what you think of this leaflet**

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:  
Miss N Topping, Consultant Ophthalmologist,  
The York Hospital, Wigginton Road, York, YO31 8HE or  
telephone 01904 725588.

## **Teaching, training and research**

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## **Patient Advice and Liaison Service (PALS)**

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [pals@york.nhs.uk](mailto:pals@york.nhs.uk).

An answer phone is available out of hours.

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Braille



Audio e.g.  
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Large print



Electronic

Owner	Miss N Topping, Consultant Ophthalmologist
Date first issued	May 2004
Review Date	May 2021
Version	3 (issued June 2019)
Approved by	Mr J M Hayward, Consultant Ophthalmologist
Linked to consent form	FYCON88-3 Focal and Grid Laser v3 FYCON90-3 Panretinal Laser v3

Document Reference PIL 253 v3

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