Information for patients undergoing Laser Treatment for Diabetic Retinopathy

Patient Information Leaflet

Medical Retina Unit
01253 956739
Laser Treatment for Diabetic Retinopathy

Your eye doctor has recommended laser treatment to your eye/s because the back of the eye/s (the retina) has been affected through your diabetes. This condition is known as “diabetic retinopathy”.

Diabetes is a metabolic disorder that tends to affect many organs and parts of the body, including the eyes. Diabetic Retinopathy is the main eye complication caused by diabetes. This refers to changes in the blood vessels and blood circulation and results in problems of the retina. The retina is the sensitive layer at the back of the eye, which is comparable to the photographic film inside a camera. Abnormalities of the retina are likely to affect the sight.

In Diabetic Retinopathy, some blood vessels may leak or bleed and some get blocked. The visual function gets compromised due to lack of blood supply and collection of fluid.
In later stages, new abnormal blood vessels can form which can cause more bleeding. In more severe cases, there is scarring and retinal detachment with serious implications to the vision.

The condition tends to progress with time and may progress quickly in presence of poor diabetes control, co-existing raised blood pressure, kidney problems and smoking.

Good and consistent control of diabetes and other co-existing conditions, as well as timely and adequate laser treatment, improve the chances of preserving good vision in the long term. If left untreated, your vision may deteriorate causing irreversible damage to your eye and your vision.
What is a Laser?

A laser is a highly concentrated beam of light used to destroy abnormal blood vessels that have developed in the back of the eye because of diabetic complications. The Laser beam is also used to seal off areas of leakage within the retina.

Why do I need a Laser?

Abnormal blood vessels can cause bleeding, scarring and destruction of the delicate tissue of the retina. Laser treatment causes abnormal blood vessels to shrink or disappear. Laser treatment can also be used to try to seal off areas of leakage within the retina.

This is the only established form of treatment for diabetic retinopathy and can preserve vision during the lifetime of an individual. The chances of preserving good vision in the long term are much higher in people who have adequate and timely laser treatment. Therefore, early and effective treatment with a laser can significantly reduce the risk of visual loss.
What will happen on the day of Laser Treatment?

Laser is performed as an outpatient procedure. You will receive a letter informing you of your appointment.

An experienced eye doctor carries out Argon Laser, although sometimes a supervised doctor in training may perform it.

Following a routine vision check, you will have dilating drops put into your eye/s to dilate the pupils (the black part of the eye). The drops can take between 20-45 minutes to fully dilate your pupils.

**NB: You are strongly advised not to drive a vehicle as the drops do have a blurring effect, which can last up to 8 hours after this operation.**

**Please Allow Up To 2 Hours For Your Visit**
Important - Please take time to read the benefits and risks section contained in this information package.

Your eye, which is to be treated, will be anaesthetised using an eye drop, and then the doctor will place a special contact lens onto or near the surface of your eye and hold it there. This will allow the doctor to focus onto the back of the eye and allow the laser beam to pass through to the areas of treatment. The lens also helps keep your eyelids open.

Once the lens is in place, you will see a bright light. This allows the doctor to see the internal structure of your eye. You will be informed of the start of treatment before any laser is applied. The doctor will press a foot pedal to activate the laser. You will experience bright flashes of light as the laser is delivered to the retina.
NB: It is important that you keep your head and eyes still during the laser treatment unless instructed otherwise by the doctor. Should you need to move your head, for whatever reason, please inform the doctor before doing so.

Laser treatment in the majority of patients is usually painless, but sometimes may be a little uncomfortable. Should this be the case, please inform the doctor or nurse.

The doctor may be able to reduce the amount of power being used or temporarily move to a different part of the retina requiring treatment that is less sensitive.

If you experience any aching or discomfort in the eye/s after the laser treatment, you are advised to take paracetamol and lie down for a few hours.
Sometimes, due to a person’s low tolerance of discomfort and pain during laser treatment, an alternative method of anaesthesia to the eye can be offered. This is in the form of an injection of local anaesthetic, which is instilled around the eye, causing complete numbness.

Laser treatment can take between 10-20 minutes per eye.

The duration of the treatment depends on how much laser you need for the type of diabetic retinopathy you have.
After the Treatment

Immediately after the laser treatment the eye will be temporarily ‘blinded’. This is due to the bright light emitted from the laser. Your vision will begin to return, usually in a series of colours, over a period of 5-10 minutes, but may still remain blurred for a day or two.

Follow Up

At the end of your laser treatment, you will be informed of any further treatment that may be required and any necessary follow up appointment.

Once your eyes become stable you will need to continue with 6-12 monthly checks, either in the eye clinic or with the Diabetes Eye Screening Service.
Benefits of Laser Treatment

It must be remembered that diabetic retinopathy is treatable but not curable.

The benefit of laser treatment is that it greatly reduces the chances of visual deterioration by slowing down the progression of the condition. Studies have shown that the majority of patients who have undergone laser treatment have a much more stabilised diabetic retinopathy and preserve their vision for longer than those who have not had the treatment.
Possible risks of Laser Treatment

The amount of risks associated with laser treatment depends on the type of retinopathy you have and the areas of the retina, which needs treatment.

**NB: YOUR EYE DOCTOR WILL BE MORE THAN HAPPY TO DISCUSS YOUR TYPE OF RETINOPATHY WITH YOU AND THE TYPE AND AMOUNT OF TREATMENT LIKELY TO BE INVOLVED**

Immediately after laser treatment, your vision may be blurred for a day or two. The eye/s may experience some discomfort, which may also last a day or two. Taking paracetamol usually relieves this.

Should you require extensive laser treatment over a few sessions, in the long term this may cause a reduction of peripheral (side) vision which, unfortunately, may result in the inability to drive a vehicle.
Extensive laser treatment may also cause a reduction in your night vision, and altered colour vision.

Sometimes there may be increased blurring of vision following treatment which may last for a few weeks. This condition is called “cystoid macular oedema”.

Despite our efforts with laser to maintain and stabilise your vision, it may still deteriorate. It is important that you are aware of this and accept this possibility.
Finally:

There is the possible risk of accidental damage to the centre of the retina during treatment, resulting in marked visual loss. This, we must emphasise, is extremely rare.

We hope this information package is sufficient to help you make an informed choice about your treatment.

Please use the space overleaf to write down any further questions to ask the doctor or the nurse when you come to the clinic for your appointment. The staff will be happy to answer them.
General advice and Information

The Medical Retina Unit is a specialised unit which cares for patients undergoing eye procedures. The unit cares for women and men, therefore there are separate facilities for women, men and disabled patients.

Smoking:
The Trust operates a no smoking policy and your co-operation with this is appreciated.

Health & Safety:
Our patients have poor vision. Please consider their safety by co-operating with the following activities:-

- Try not to obstruct corridors
- To reduce the risk of injury to you and other patients, please avoid assisting others
Where is the Ophthalmic Day Surgery Unit

If you are registered disabled and have a ‘blue badge’ the nearest car park is Woodlands which can be accessed from East Park Drive near the Gastroenterology department.

From the car park, you can walk directly into the Unit.

Enter the hospital from the car park and turn left, we are a short walk along the corridor.

If you are not registered disabled / do not have a ‘blue badge’:

Please park in the multi storey care park.

Enter the hospital using the Main Entrance’ where you will find the retail stores.

Turn right up the stairs, escalator or lift.

Go straight on down the main corridor.

The Ophthalmic Day Unit can be found approximately 200 metres down this corridor.
Options available
If you’d like a large print, audio, Braille or a translated version of this booklet then please call 01253 955588

Patient Relations Department
For information or advice please contact the Patient Relations Department via the following:
Tel: 01253 955588
email: patient.relations@bfwh.nhs.uk

You can also write to us at:
Patient Relations Department
Blackpool Victoria Hospital
Whinney Heys Road
Blackpool
FY3 8NR

Further information is available on our website: www.bfwh.nhs.uk

Useful contact details
Hospital Switchboard:
01253 300000

Medical Retina Unit
01253 956739

References
This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:
Policy Co-ordinator/Archivist
01253 953397

Travelling to our sites
For the best way to plan your journey to any of the local sites visit our travel website:
www.bfwhospitals.nhs.uk/departments/travel/