# LASER TREATMENT

This is a guide aimed to give you some information about your forthcoming laser treatment. Laser treatment to the eyes has been undertaken since 1970's. It is thus a very well established treatment for treating a number of retinal conditions. This type of laser is not to be confused with the Refractive lasers used in the high street to correct your vision instead of wearing glasses or contact lenses. These lasers are totally different.

Lasers have evolved also hugely from the original water cooled laser installed at St Bartholomew's hospital that I first used when I first started Ophthalmology. They are now computer controlled offering many different pattern and regimes. Research is now also under way to semi-automatic lasers guided by photographs and Fundus fluorescein angiography.

Below is an example of new vessels on the disc in a diabetic, and after a Pan Retinal Photocoagulation laser with 2000 burns the new vessels have resolved. The risk of the patient having a vitreous haemorrhage and loss of vision is thus dramatically reduced.



They are also hugely successful in treating diabetic retinopathy as well as sealing retinal tears and holes.

Because of this you must NOT drive/cycle or operate machinery for the remainder of that day or until your vision returns to normal.

2. After this you will be taken into our laser room. We do not normally allow relatives in the room as it is potentially hazardous but on special request we can accommodate this by using special laser safety glasses.

3. You will be asked to sit on the familiar slit lamp to which the laser is attached.

4. We will anaesthetise the eye with drops, these do sting a little just we have been done previously to check the eye pressure.

5. Often a contact lens is placed on the eye. This you do not feel as the eye is anaesthetised though you are aware of it.



## 6. The Doctor

examines the eye in the usual way with the bright light of the slit lamp.

7. He will tell you to fix on a particular spot. This keeps the eye still so that he can work. It is vitally important that you look at this spot and not any other light. Please try to keep as still as possible.

8. He will tell you he is starting and you will be aware of the bright light of the laser. Always look at the fixation point and never the laser light.

9. People describe laser treatment from just a bright light to mildly uncomfortable. Very few actually find it painful and even less often do we have to stop, but do tell us if it is too painful as it is possible to give an alternative anaesthetic.

10. After treatment the vision will be blurred from the drops and contact lens. The vision will return over night. However occasionally if we are treating close to the central vision there may be some swelling of the retina, which take 2-3 days to settle. Normally the vision is unaffected, but do be aware that there is always a small risk to the vision associated with the laser treatment.

11. You may need further treatment. This is quite normal and the doctor will tell you.

## What if the eye is painful when I get home?

- 1. Take some simple pain killers. eg. Paracetamol or Nurofen.
- 2. If it remains painful over night return to the clinic next day. Just occasionally the lens may scratch the eye but this will heal quickly.
- 3. If you feel sick or the eye is painful please telephone your Doctor/local eye hospital

**Is Laser Safe?** The benefits of laser do outweigh the risks, but it must be pointed out that side-effects may occur but are fortunately very rare. Transient blurring of vision due to the lens and lubricant applied is normal. Please feel free to discuss the risks with the doctor.

**Laser and Driving** If you are having an extensive amount of Argon Laser for Diabetes there is a risk that the laser will reduce your visual field below that which is required for driving. It is your responsibility to inform DVLA that you have had laser treatment and they will arrange a formal assessment of your vision for driving.

### Why do we do laser?

### Diabetes.

1. To heal leaking blood vessels which leak fluid and fats into the retina called oedema and exudates. These often respond very well to laser. We often treat before you notice any problems in your vision. Preventative treatment is always better than cure. The argon Laser is a Green Light. We use anything from just a few burns to several thousand pulses of laser light in this treatment.

2. To treat new vessels. This is a potentially blinding condition of the eyes. The laser makes the new vessels resolve and works very well. Untreated they can bleed and this will drastically reduce your vision.

3. The Modern Pascal laser is far more comfortable as it is able to apply up to 25 burns in one shot. This means it is 25 times quicker than the previous single shot lasers.

Any further queries please do not hesitate to ask the doctor. Copyright: Nicholas Lee FRCS FRCOphth Consultant Ophthalmologist Hillingdon & Western Eve Hospitals.

2011