YAG laser treatment for posterior capsule opacification (PCO)

Posterior capsule opacification (PCO) is a relatively common occurrence after cataract surgery but is easily treatable. Sometimes you can develop a thickening of the back (posterior) of the lens capsule which holds your artificial lens in place. Thickening of the capsule means that light is less able to travel through to the retina (the light sensitive layer at the back of your eye). Sight can become cloudy or blurred or you may have problems with bright lights and glare. Current studies show us that this can occur between 10-20 % of patients at any time after surgery.

If this happens you may need to have laser treatment to make vision clear again. This type of laser is safe and has very few complications. The procedure is done by making a gap in part of the back of your lens capsule using a YAG laser, so that the light can once again pass directly to the retina. For the vast majority of people this can improve vision. Figure 1 below demonstrates the YAG laser capsulotomy procedure.

What happens before laser treatment?
Your vision will be checked, and your intra-ocular pressure measured. Drops are instilled to dilate the pupil; these can take up to 30 minutes to work. The retina at the back of the eye is examined to ensure that there are no other problems.

The benefits as well as possible complications of the treatment will be discussed with you prior to you signing the consent form. The procedure only takes about five to ten minutes, but due to the various tests needed please...
expect to be in hospital for up to two hours.

**How is the laser treatment carried out?**
The laser treatment is painless and is carried out while sitting at a machine similar to the one you were examined with in the clinic. Local anaesthetic drops will be given and a contact lens may be placed on your eye to steady it and focus the laser beam. The laser light is invisible but a bright light is used so that the capsule can be seen. Each laser shot lasts a fraction of a second and you will hear a loud clicking sound at the same time.

**What happens after laser treatment?**
The laser cuts a hole in the opaque membrane behind the implant. This allows light to reach the retina, therefore bringing vision back to the level it was before the membrane became cloudy. It may take several days before your vision is fully restored. Drops may be given for you to use after the procedure.

We advise that you do not drive yourself home after your procedure as it can take some time for the drops that dilate your pupils to wear off, and your vision may still be blurry following the laser. Please ensure that you make other travel arrangements. Because the laser treatment does not require any incisions or stitches, you are normally able to return to your daily activities straight away.

**What are the risks of laser treatment?**
The laser procedure is considered very safe. Though there are some risks, serious side effects are very rare. If a contact lens is used, your eye may be a little sore following the treatment, but this should soon wear off.

**Common complications:**
- For some people laser treatment for PCO can cause eye pressure to briefly rise. If your doctor is concerned about this they will check your eye pressure soon after the laser treatment. If your eye pressure has increased, you will be provided with some eye drops or a tablet to bring it back down.
- Inflammation inside the eye-this is uncommon and responds rapidly to anti-inflammatory drops.
- Floaters- these are harmless clumps of cells which move around inside the vitreous (a jelly-like substance which fills the inside of the eye). You may see floaters as dots, circles, lines, clouds or cobwebs.

**Rare but serious complications:**
- **Retinal damage**
  Rarely, laser can cause a retinal detachment which can happen days, weeks or months after the treatment. This is more likely to happen if you are very short-sighted. It is important to stress that these risks are extremely rare complications of the laser.
treatment. The vast majority of people get an excellent improvement in their vision following laser without experiencing any issues. If you have any concerns, the clinician performing the procedure will discuss this with you and will also describe the symptoms of retinal detachment. Please also be aware that retinal detachment surgery is normally very successful in preserving or restoring good vision.

- **Damage to the intraocular lens**
  Minor scratches are occasionally unavoidable but very rarely cause visual problems.

**What if I have a problem when I get home?**
Please contact the clinic where you had your treatment if you experience any of the following:

- pain not relieved by your normal painkillers.
- noticeable redness in your eye.
- your sight becoming worse.
- flashing lights or a shadow/curtain in your vision.

You can also telephone Moorfields Direct for advice (details below) or attend your local A&E department or the A&E department at Moorfields, open 24 hours for emergency eye problems only.

**Excerpts of this leaflet have been taken from the Royal National Institute of Blind People (RNIB)’s information sheet titled ‘posterior capsule opacification - why laser treatment is sometimes needed following cataract surgery’ (2018). Last accessed: 08.06.18**

Author: Yvonne Kana
Revision number: 2
Approval date: March 2019
Review date: March 2022

**Moorfields Eye Hospital NHS Foundation Trust**
City Road, London EC1V 2PD
Phone: 020 7253 3411
www.moorfields.nhs.uk

**Moorfields Direct telephone helpline**
Phone: 020 7566 2345
Monday-Friday, 8.30am-9pm
Saturday, 9am-5pm
Information and advice on eye conditions and treatments from experienced ophthalmic-trained nurses.

**Patient advice and liaison service (PALS)**
Phone: 020 7566 2324/ 020 7566 2325
Email: moorfields.pals@nhs.net
Moorfields’ PALS team provides confidential advice and support to help you with any concerns you may have about the care we provide, guiding you through the different services available at Moorfields. The PALS team can also advise you on how to make a complaint.

**Your right to treatment within 18 weeks**
Under the NHS constitution, all patients have the right to begin consultant-led
treatment within 18 weeks of being referred by their GP. Moorfields is committed to fulfilling this right, but if you feel that we have failed to do so, please contact our patient advice and liaison service (PALS) who will be able to advise you further (see above). For more information about your rights under the NHS constitution, visit www.nhs.uk/choiceinthenhs