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Cataract Surgery

You should read and understand this booklet. You may also wish to go through the information with a relative or carer. You will be asked to sign a consent form on the day of the operation and there will be a chance to discuss things with Mr Manuchehri who will take your signature and who will also sign the consent form to show that he is satisfied that you understand what is involved in the surgery, including the risks. You will be able to keep these information sheets to remind you of what has been discussed.

What is a cataract?

A cataract is a clouding of part of your eye called the lens. The lens in the eye works like the lens in a camera, focusing light on the "retina", the layer at the back of the eye corresponding to the film in a camera. Your vision becomes blurred because the cataract is like frosted glass, interfering with your sight. It is not a layer that grows over the surface of your eye.

If Mr Manuchehri has told you that you have a cataract, don't be alarmed. Many people over 60 have some cataract and the vast majority can be treated successfully.

What problems might you notice if you have a cataract?

- **Blurry sight:** this is very common. You may notice that your sight has become blurred or misty, or that your glasses seem dirty.
- **Dazzle or glare:** you may be dazzled by bright lights such as car headlamps and sunlight.
- **Change in colour vision:** colours may gradually become washed-out or faded.

What causes a cataract?

Cataracts can form at any age. Most develop as people get older but we don't yet know why, although research is being done into a number of possible causes. In younger people we know that they can result from conditions such as diabetes, certain medications, trauma to the eye and related to other long standing eye problems.

What treatment is available?

The only treatment for cataract is an operation to remove the cloudy natural lens and replace it with a plastic lens. Diets or drugs, including eye drops, have not been shown to slow or stop the development of cataract.

When should I have the operation?

In the past, eye specialists often waited until the cataract became “ripe” and your vision was very poor before suggesting that you had the cataract removed. Nowadays, with modern surgery, the operation is usually done as soon as your eyesight interferes with your daily life and your ability to read, to work, or to do the things you enjoy. You will probably want to consider surgery if this is the case.

Waiting for a longer period is not likely to make the operation more difficult, unless the cataract becomes so dense that your eyesight is very poor. Cataract, even if dense, hardly ever does any harm to the rest of the eye. If you do not have the operation now, the vision is likely to worsen slowly but it is very unlikely to result in any permanent harm to the eye.

If you are a driver you must reach the visual standard required by the Drivers and Vehicle Licensing Authority (DVLA) and may need to have surgery in order to keep your licence.

What happens during the operation?

Just before the operation eye drops will be given to enlarge your pupil, blurring the vision.

Almost everyone has a local anaesthetic for the surgery, during which you will be wide awake but feel no pain in your eye. Drops to numb the eye are given. In some cases, a needle is placed in the back of your hand before the anaesthetic is given, so that drugs can be given by this route if necessary.

Some cataract operations are carried out under a general anaesthetic. If this is the case, you will be completely unconscious, as if you were sleeping deeply throughout the surgery.

Mr Manuchehri carries out the surgery with the aid of a microscope. The opening into the eye is so small that stitches are not usually necessary – if needed they cannot be seen or felt afterwards and are easily removed later in the out-patient clinic. The operation usually takes 15-20 minutes, although it can last longer. The lens containing the cataract is removed and replaced with a plastic lens, which remains in your eye permanently. The cataract is removed by a technique called phacoemulsification, in which the lens is softened with sound waves and removed through a fine tube. The operation cannot be performed by laser.

After the operation

A pad and/or a plastic shield may be taped over your eye at the end of the operation to protect it until the anaesthetic wears off.

With local anaesthetic, you will be able to eat and drink as normal straight after the surgery.

Most people notice an improvement in sight by the next day, although complete healing may take several months. You will be given eye drops to use at home, and these will

usually need to be continued for a few weeks. It is a good idea to have some help at home at first, especially if you find it difficult to put your eye drops in.

You will probably go home on the day of the operation, and in most cases will be able to carry on with normal daily activities, but it is important to remember the following:

- avoid rubbing your eye for the first few days
- don't do any heavy lifting, strenuous exercise or swimming for about four weeks
- We recommend your use the eye shield in bed for the first week at least.

If you have discomfort, you should take your usual dose of a pain reliever such as paracetamol every 4-6 hours. It is normal to feel itching, sticky eyelids and mild discomfort. Some watery and mildly bloodstained discharge is common. After a few days even mild discomfort usually disappears, though occasionally grittiness may persist for a few weeks.

You will be seen in consultation the next day after the operation and again a week or two later. During this consultation Mr Manuchehri will advise you when to see your optician for new glasses, and when you can go back to work, drive and return to any other activities.

It is important to realise that most people will still need glasses after cataract surgery, usually at least for reading. Most patients prefer to have clear distance vision without glasses, with glasses still needed to see close up. Sometimes a patient may prefer to be able to read without glasses and to keep glasses for distance vision, particularly if he or she was short-sighted before the cataract surgery. In many patients, glasses may still be needed for both distance and near, particularly if crisp vision is required, for example when driving. The "astigmatism" element of a spectacle prescription is not corrected in most cataract operations and glasses may still be needed for good vision at both distance and near if this is significant.

Important

If you experience severe persistent ocular discomfort, or headache, or increasing redness of the eye after the operation, or if the sight falls dramatically after having been good at first, it is very important that you contact us straight away on 01296 434352 or 07835 977069.

The risks of cataract surgery – what can go wrong?

Most cataract operations are straightforward, with the patient achieving good vision afterwards, but as with any surgery problems ("complications") can occur. Most complications can be dealt with effectively and cause no long-term problems, but some rare complications can be very serious. Although some patients do not wish to know anything about the things that can go wrong, others want to know about these in detail and so they are set out below.

Summary

A severe complication will occur in about 1 in 500 cataract operations. In about 1 in 1,000 operations the eye will be left with little or no sight. Following probably about 1 in 10,000 operations the patient will lose the eye. Some of the complications mean that a second operation will be necessary either to complete the cataract surgery or to treat the complication itself. There is virtually no risk to the other eye.

Specific complications (this list is not exhaustive)

- **Bruising:** of the white of the eye or the eyelids. Very common, temporary and very rarely more than a mild cosmetic problem.
- **Allergy to eye drops:** fairly common, causing an itchy and/or swollen eye until the drops are stopped. Uncomfortable but very rarely serious.
- **Post-operative pressure rise inside the eye:** common, and can usually be treated easily with eye drops or tablets without being admitted to hospital.
- **Post-operative inflammation of the eye:** common, and usually treated just with an increase in the frequency of post-operative eye drops.
- **Posterior capsular opacification (PCO):** very common, often after months or years. Occurs in probably around 1 in 4 operations to some extent. The back wall of the lens capsule is usually left in place to support the artificial lens, and in PCO it becomes cloudy and may cause blurring. If significant, PCO can be treated using a laser to make a small opening in the capsule. The laser procedure ("capsulotomy") is painless and takes just a few minutes in the clinic.
- **Posterior capsular rupture/vitreous disturbance (vitreous "loss"):** a split in the fragile back wall of the lens capsule, allowing the gel which fills the back compartment of the eye to escape. This is relatively common (about 1 in 50 cataract operations) and usually means that the length of the surgery is increased while the gel is carefully removed. Sometimes a second operation may be needed to clear the gel or to insert a special type of artificial lens, before which the sight will be very blurred. Usually the sight in the eye settles well, though sometimes it may not.
- **Zonular dehiscence:** the lens capsule is anchored in place by microscopic ligaments, the zonules, and occasionally these break ("dehisce") during surgery. The vitreous gel may be disturbed, with the same implications as posterior capsular rupture (see above).
- **Dropped nucleus:** about 1 in 500 operations. The hard central part of the cataract falls through a capsular rupture, usually meaning that cataract removal and lens implantation have to be completed with a second operation within a week or so, before which your vision will be very blurred. Other implications are as for posterior capsular rupture above.
- **Endophthalmitis:** infection inside the eye. A serious complication occurring in about 1 in 1,000 operations, usually in the first few days after surgery. Treated in most patients with intensive antibiotic treatment, including another operation, but the response to treatment is sometimes poor and in some cases the eye is lost.
- **Retinal detachment:** peeling off of the seeing membrane lining the inside of the back of the eye, more common in short-sighted patients and after vitreous loss (see above). A serious complication eventually occurring in one in several hundred eyes after cataract surgery, though some of these would have occurred anyway. It is treated by operation, though sometimes vision is permanently reduced and very occasionally lost completely.

- **Suprachoroidal haemorrhage:** bleeding inside the eye may mean that the operation has to be stopped before finishing, and completed on another day. If the bleeding is very severe, it is possible for the sight or even the eye to be lost, though with modern surgical techniques this outcome is now extremely rare.
- **Corneal clouding (“decompensation”):** clouding of the normally clear front window of the eye. Common (up to 1 in 10 cataract operations) but usually temporary, though may require more frequent post-operative eye drops than usual if it occurs. Very occasionally the clouding fails to clear and a corneal transplant operation may then be required.
- **Unexpected refractive outcome:** despite sophisticated modern techniques to determine the correct power of artificial lens implant required, sometimes the result is more long- or short-sighted than planned. Usually this is mild and correctable by glasses. If severe, particularly if there is a large imbalance between the eyes, a lens implant exchange operation may be proposed, though contact lens wear may enable this to be avoided.
- **In younger people, loss of the ability of the eye to focus at different distances:** in everybody over the age of about 45, the ability to focus for close-up objects is gradually lost as the natural lens becomes less flexible. Reading glasses usually compensate fully. After cataract surgery, because the artificial lens implant is also rigid and cannot focus for different distances, reading glasses will also usually be required. Patients younger than about 50 therefore need to be aware that they will experience the sudden loss of active focusing and that it may take a while to adjust.
- **Surgical astigmatism:** though rare with modern small-incision surgery, occasionally the surface of the eye can be distorted by the effect of the surgical incision. This is usually correctable by glasses, contact lenses, or occasionally further surgery. Sometimes a stitch is put in during surgery to try to reduce pre-existing astigmatism.
- **Wound leak:** following about 1 in 100 operations, the surgical incision is not secure. Usually, this is suspected during the operation and a stitch is put in at the time but sometimes a further short operation may be required to stitch the wound.
- **Cystoid macular oedema:** though less common with modern surgical techniques, fluid can accumulate in the centre of the retina (the “macula”), affecting central vision. It is more common if posterior capsular rupture has occurred (see above), and in the presence of inflammation. If severe it can reduce vision significantly and be very difficult to treat.
- **Dislocation of the artificial lens:** very rare. The artificial lens may be displaced from its initial position within the eye and this may lead to reduced or double vision. If completely displaced, an operation may be needed to retrieve it and replace it with a special type of implant.
- **Droopy eyelid:** in some patients, the upper eyelid may droop following the operation. Usually this gradually corrects itself but if severe an eyelid operation can be carried out to lift the lid.
- **Double vision:** although double vision is common in the first few hours after surgery, very occasionally it persists. A further operation may be curative.

Risks of the anaesthesia

You will not be asked to sign a separate form giving permission for the anaesthesia needed for the operation, but the anaesthetist will talk to you about the risks. Local anaesthesia carries a very low risk of problems, though some of these have the potential to

be very serious including loss of the eye and even – in exceptionally unusual circumstances – death. Things that can go wrong include allergy to the anaesthetic agent, severe bleeding behind the eye, severe damage to the eye from the needle or metal tube used for anaesthesia, and unintended passage of the anaesthetic agent into other important areas such as the fluid surrounding the brain.