**Cataract Surgery (Phacoemulsification with implant) -**

**Information leaflet**

**What is it for?** Cataract is the cloudiness and discolouration of the natural lens

suspended within the eye. The natural lens focuses light in the eye. As a result of

cataract, vision becomes foggy and colours are dull. Cataract surgery replaces the

cloudy natural lens with a new, clear artificial plastic lens, restoring vision.

**How is it done?** A keyhole operation is almost always used. Keyhole incisions are

made at the joining between the white of the eye and the cornea. Instruments are placed through the incisions, including an ultrasound driven tool that breaks up the cataract into small pieces. Then, the artificial lens is put inside the eye and left permanently supported in the same place where the natural lens used to be. Incisions are self-sealing and often stitches are not needed. The operation takes about 20-30 minutes.

**Anaesthesia:**

**Topical Anaesthesia.** It is done by using just anaesthetic eye drops. Topical anaesthesia does not block eye movement and requires a small degree of patient co-operation, consisting of avoiding squeezing and looking at the bright microscope lights, to minimise sudden eye movements. Topical anaesthesia is not suitable to all patients. For instance, anxious or claustrophobic patients may be better off with the peace of mind of deeper local anaesthesia that blocks eye movements. There are some eye or individual circumstance situations that may make local anaesthesia a preferable option.

**Local Anaesthesia.** The patient is awake. Strong and long-acting anaesthetics are injected around the eye ball.

**General Anaesthesia.** This is not necessary and is very rarely carried out.

**What are the main risks?**

* The support to the lens may be lost, often because of weakness of the tissue that suspends the natural lens in the eye. Occasionally (1:750 cases) this may result in drop of the cataract to the back of the eye, or the inability to place an artificial lens and the need to carry out a second operation later to fix the problem.
* One in a thousand patients may lose most or all of the sight, usually through

infection after surgery (endophthalmitis).

* Rarely the iris (the coloured part of the eye) may get in the way, especially if

floppy or resistant to dilation, and then retain an unusual shape post-operatively.

* Some medications used to treat blood pressure or bladder voiding difficulties

(alpha1-receptor inhibitors, such as Tamsulosin or Doxazosin) can cause an

abnormal reaction of the pupil going small and floppy during surgery, making

the surgery more challenging and increasing the risk of complications

* Other small risks are retinal detachment or bleeding in the eye.
* Unusual level of inflammation or water logging of the central part of the retina, may be seen post-operatively, despite technically unremarkable cataract surgery. This is an individual response to healing that may cause blurred vision. Medical treatment usually resolves the problems, although it may take a long time. In a small number of patients, vision may not fully recover to 20/20.
* Exceedingly rare events not experienced by most cataract surgeons in their

working life include catastrophic eye bleeding (expulsive haemorrhage), with loss of

the vision and in rare, extreme case, loss of the eye.

* Delayed inflammation to the other eye (sympathetic ophthalmia) has been reported but it is exceedingly rare.

**What to expect post-operatively:**

* Vision may be blurred for a few days, before gradually getting better. Persistent blurring

may be due to water-logging in the retina (macular oedema), cloudy cornea, or protracted post-operative inflammation (less than 1:100). Usually these problems are the result of an individual healing response and cannot be anticipated, but are often treatable.

* Shimmering of vision may occur for few days. Very rarely it may persist for long periods. The need to remove the intraocular lens to treat it is exceedingly rare.
* Intermittent gritty sensation for a few weeks after surgery is common. It eventually settles. If bothersome can be alleviated by soothing artificial tears.

**Visual improvement:**

Overall, 97% of patients improve their vision with cataract surgery, 2% remain about

the same. Up to 1% of patients may be worse off because of complications or post-operative healing problems. Severe loss of vision is rare, less than 1:1,000.

Any other pre-existing eye disease can affect the final visual result.

**What about spectacle correction?**

Some degree of spectacle independence for either distance or near may be achieved, but usually, spectacles will be required for the sharpest possible vision.

The ageing natural lens loses its ability to focus at various distances (presbyopia). In fact, most patients older than 50, are already used, prior to surgery, to wearing different spectacle correction for distance and near vision.

The clear artificial intraocular lens replacing the cataract typically is a monofocal lens, with one fixed focusing distance. In other words, reasonably focused vision without spectacles can be obtained for distance or for near only, not for both.

The power of the lens inserted into the eye is estimated through the pre-operative test

called ***biometry***. The biometry has 80-90% accuracy in reasonably predicting the desired post-operative focusing without spectacles. The point of fixed focusing for near or distance, is decided on the basis of individual circumstances. Most patients prefer to have their post-operative focusing adjusted for distance. However, some short-sighted patients accustomed to read without spectacles may choose to continue to do so and have the fixed focusing adjusted for near, whilst remaining short-sighted for distance and requiring corrective spectacles to drive or look far away.

There are lenses that allow some degree of focusing at various distances. These are

called *multifocal intraocular lenses*. Not all patients may be suitable for these lenses.

These lenses are more expensive and incur an additional cost to cataract surgery. They are not available in the NHS and may not be covered by insurance policies. Patients interested in multifocal intraocular lenses should have an in-depth discussion and dedicated consultation as there is a chance that a more complex operation to remove a poorly tolerated multifocal lens, due to halos, glare, or reduced contrast at dusk or in very cloudy days.

**Younger patients undergoing cataract surgery** need to be aware that they will lose the ability of adjusting their focusing as result of surgery and will require near and distance

spectacle correction, as much as it would happen at some point later in life.

**Toric lenses** may be offered to you if the biometry shows that you have significant astigmatism (rugby shaped cornea at the front of the eye). Toric lenses need to be offered. They are premium lenses that allow sharper focusing when not wearing corrective spectacles.

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**Post-operative Advice – What to expect post-operatively instructions and advice**

**Appearance.** The skin round the eye may look bruised and the white of the eye may look red

immediately after surgery. This is more common with local anaesthesia rather than just eye drops anaesthesia. Please do not worry. It clears in a few days.

**Vision and discomfort**. Your vision may be slightly blurred for a few days after your operation. Your eye may be slightly uncomfortable or gritty. Overall, your eye should get progressively better over the first couple of weeks. Simple analgesia such as Paracetamol may be taken to reduce any post-operative discomfort.

**If your eye suddenly becomes very red and painful or the vision drops considerably, please get in touch as you may need further assessment.** You can contact my secretary or the local Eye Emergency Services, as indicated in the discharge information.

**No eye rubbing**. Please refrain from rubbing or putting pressure on your eye.

**Shower** from the neck down and back wash your hair for the first week to prevent soap or shampoo getting into the eye.

**Eye shield.** Wearing an eye shield for at least 3 days at night will protect your eye from accidental rubbing whilst asleep. If you are still worried about rubbing your eye at night or when going out in windy days, you may continue to wear the eye shield for up to 10 days. There is generally no need to wear the eye shield indoor and whilst awake, apart from the day of surgery.

**An Eye pad** may be placed below the eye shield. All cases of local anaesthesia blocking eye movements require an eye pad in the first day to avoid double vision.

**Physical activities.** Please take it easy in the first week. You are allowed to gently bend forward and lift non-heavy weights. Avoid strenuous activities and contact sports for at least 4 weeks. Please, refrain from swimming, gardening, dusty housework and vacuum cleaning for at least 3 weeks. Do not wear **make up** for the same period.

You can start **driving** as soon as your vision is within legal limits and you feel

confident. Legal vision is defined as the ability to read number plates at 20 metres.

Some patients are able to drive in a few days, others wait 2-4 weeks, or until new

spectacles have been made.

**New spectacles for near and distance vision** may be necessary to refine your vision

about 4-5 weeks after surgery.

**What to do the day after surgery.**

Unless instructed otherwise, please, remove the eye pad, if any and the protective shield the morning after surgery and gently clean the skin around your eye using cotton wool moistened with lukewarm water.

Clean the shield with soap or a mild detergent. You will need to wear the protective shield overnight for a week.

Please commence your postoperative eye drops as per the instructions you have been given.

A follow up appointment is typically scheduled in a couple of weeks following your surgery, unless instructed otherwise. Please contact us if this has not been arranged.