

Cataract

Indication for surgery

A cataract is a cloudiness in the natural lens of the eye. When the vision becomes dull and hazy, and glasses do not help as much as they used to you may consider cataract surgery to regain clear vision again.

Cataract surgery

Cataract surgery is a modern small incision eye surgery to remove the cloudy lens that also corrects glasses prescription depending on the type of the intraocular lens implant. Premium multifocal and toric lenses aim to achieve as much clear vision as possible for far (television and driving), intermediate (computer distance) and close reading distance with the least dependence from glasses.

Multifocal intraocular lenses were related to a possibility of glare effect with the night lights which could interfere with night driving, although this side effect is less noticeable with the current modern lenses.

Standard monofocal lenses are also particularly good to correct far distance vision and with precise "micro monovision" could also achieve good intermediate distance results. These standard monofocal lenses will need close distance correction with glasses after surgery.

Cataract surgery is a day case procedure under local anaesthetic. It can be done under topical drops anaesthesia or with a small injection around the eye to numb it. However, if you are particularly anxious about this, a local anaesthetic with sedation or general anaesthesia could be offered. At the end of the operation you will have an eye pad shield over the eye to prevent the accidental rubbing till the following day after procedure.

Intraocular lenses

The type and power of the lens implant is selected based on your desired visual outcome.

Standard Monofocal lenses

The standard single focus lens aims for clear distance vision and use of reading glasses for near distance in both eyes. Standard monofocal lenses could give a reasonable intermediate (computer distance) vision if planned before the surgery in both eyes.

Micro mono vision is when the dominant eye ("the director eye" for driving distance) has the intraocular lens implant to achieve sharp far distance vision and the fellow eye is corrected with

the intraocular lenses that aims for slightly short sighted result (-1D-1.5 D), which is very good for computer distance and telephone check. However, reading a book or newspapers will need a glasses correction.

Toric Lenses

To achieve the best visual outcomes with reduced spectacle dependence, toric lens implant can be chosen if there are more than 1.0 D of astigmatism. This requires additional tests and calculations before surgery. These special lenses need to be ordered and usually take a few days to arrive.

Multifocal lenses

The Multifocal intraocular lens (IOL) implant (including toric lens for correction of astigmatism) aims to reduce dependence on glasses for both distance and near. However, for very clear distance or detailed near vision the use of glasses may still be needed. The new multifocal lenses seem to have much less glare and halos around lights, which is described as an interfering symptom with the night driving. Although not particularly noticeable in day to day vision, the altered perception of the contrast with these multifocal lenses has been reported. Because of these reasons the multifocal lens implant is not suitable for everyone. Macular problems need to be excluded prior to surgery when we plan to use multifocal lens implants, as they may interfere with clear far and close distance vision despite successful surgery. All patients with planned multifocal lenses surgery require a retinal scan (OCT) to be done to detect any macular alterations.

Risks of cataract surgery

Infection (endophthalmitis) is a rare condition (occurs in less than 1:1000) which mostly occurs within the few weeks after surgery. An increased pain, redness or blurred vision following cataract surgery may indicate endophthalmitis. A prompt advice should be sought if these symptoms appear as an intravitreal antibiotic treatment may be required urgently

Bleeding: very uncommon problem with modern small incision surgery, but still relevant.

Posterior capsule rupture (PCR) (the membrane that supports the lens can split during surgery). This problem is usually managed at the time of surgery, but may mean that a special toric or multifocal lens can't be implanted. Each surgeon has an individual rate of PCR that will depend on the experience and surgical skills of the surgeon. Patients should be informed their surgeon's PCR rate.

Dropped nucleus happens when pieces of the cataract can fall through the ruptured posterior capsule into the back of the eye. In most cases a cataract surgeon will need to stop the surgery and refer the patient to a vitreoretinal surgeon such as myself. As an ophthalmic surgeon

specialising on retinal surgery, I receive referrals to solve this complication with vitrectomy surgery (remove the rest of the cataract fallen into the back of the eye and implant the intraocular lens).

Increased risk of retinal detachment after cataract surgery. Even uncomplicated cataract surgery may increase the risk of retinal detachment. This is because the gel (vitreous) separation from the retina is triggered by cataract surgery. During this posterior vitreous detachment process retinal tear can be caused by pulling of the gel away from the retina. Myopia (short-sighted) and surgical complications such as posterior capsule rupture increase risk of retinal detachment. New floaters, flashing lights or a shadow/curtain in the vision may indicate retinal detachment. Prompt retinal check may detect the problem at early stage and preserve the vision.

Macular oedema: a swelling at the macula which is responsible for fine vision. It generally occurs few weeks after cataract surgery and usually improves with topical non steroid anti-inflammatory drops. People with diabetes even without diabetic eye disease have increased chances of having macular oedema after cataract surgery and may benefit from prophylactic use of the anti-inflammatory drops following surgery to reduce the risk of this swelling.

High or low eye pressure: temporary high intraocular pressure can be easily controlled with eye drops for a few weeks. Low pressure generally settles spontaneously.