



## ***Patient information – Cataract***

Cataract is a condition where the natural lens inside the eye gets cloudy and interferes with the quality of vision. Cataract causes blurred /misty vision, excess glare and can affect both distance and near vision. There is no medical treatment for cataract and a cataract operation may be recommended by your surgeon if the decreased eyesight starts to interfere with one's life style and visual needs.

### **What symptoms do cataracts cause?**

Cataracts usually form slowly over years causing a gradual blurring of vision, which eventually is not correctable by glasses. In some people the vision can deteriorate relatively quickly. Developing cataract can also cause glare, difficulty with night-time driving and multiple images in one eye which can affect the quality of the vision.

### **Do cataracts spread from eye to eye?**

No. But often they develop in both eyes either at the same time or one after the other with a gap between.

## **Are there different kinds of cataract?**

Yes. Most cataracts are age-related, but other examples include congenital (present at birth), drug induced (steroids), and traumatic (injury to the eye)

## **Are cataracts just a part of getting old?**

Most forms of cataract develop in later adult life. This is called age-related cataract, and can occur at any time after the age of 40. The normal process of ageing causes the lens to gradually become cloudy. Not all people who develop cataract require treatment.

## **I didn't know that I had a cataract until my optician told me – is that normal?**

At first, you might not be aware that cataract is developing and, initially, it may not cause problems with your vision. Generally, as cataract develops over time, you start to experience blurring of vision. In most cases, eyes with a cataract look normal but, if the cataract is advanced, your pupil may no longer look black and can look cloudy or white. You may need to get new prescription glasses more frequently when the cataract is developing. Eventually, when your cataract worsens, stronger glasses may no longer improve your sight and you might have difficulty seeing things even with your glasses on.



## TREATMENT

### **When do I have my cataract treated?**

In many cases, cataract is harmless and may be left in your eye. It is usually safe not to have surgery if you feel that you do not have a problem with your vision or do not wish to have an operation. When the cataract progresses to the point that it is interfering with daily activities or lifestyle, even when using up-to-date glasses, then cataract surgery may be the next step. Modern surgery is highly successful for the majority of patients but, as with all surgery, there are risks. Cataract surgery is performed when you have a problem with your vision and you want to do something about it.

### **Can anything be done to stop my cataract worsening?**

There is no known method of preventing cataract.

### **I have cataract developing in both eyes – are both operated at the same time?**

It is common for cataract to develop more quickly in one eye than in the other. The timing of an operation is agreed after discussion between you and the surgeon. Usually, your more seriously affected eye is operated on first. Sometimes it is advisable to have your second eye operated on even if it causes you few vision symptoms, to balance the spectacle prescription so that your eyes can be used comfortably together. Whilst it is possible to operate on both eyes at the same time this is not routinely done. Simultaneous bilateral (both eyes at the same time)

cataract surgery is only performed on a specific needs basis and the team in charge of your treatment will be able to advise on the suitability, as well as the risks and benefits of having surgery on both eyes at the same time.

### **Do I need any special tests before the operation?**

Yes. Special tests are required to determine the strength of lens implant which is inserted into the eye. These tests are undertaken prior to the operation day, usually at your first clinic attendance. Prior to your special tests, if you wear contact lenses, you must leave them out for the following time unless told otherwise:

- At least 1 week for soft lenses
- At least 2 weeks for any types of rigid lenses including gas permeable lenses

### **I have had previous laser treatment to my eyes. Does it matter?**

Excimer lasers (e.g. LASIK and PRK) are used to reduce the need for glasses, most commonly in short-sighted younger people. If you have had laser treatment, it is very important that you tell the doctors and nurses during your assessment. Excimer laser treatment affects the calculations that are used to determine the strength of lens implant that is inserted. Even though allowance is made for the laser treatment, it is more difficult to select the power of the lens implant and patients are at

higher risk of being more or less long/short-sighted than planned following the cataract surgery. This may require spectacles or contact lenses to be worn or may be remedial surgery can sometimes be available.

### **What does the cataract operation involve?**

Professor Srinivasan, an experienced eye surgeon will carry out your operation. Your eye is never removed and replaced when operations are carried out. The most common form of cataract surgery is performed by surgeons using a small incision (wound) and a process called “phacoemulsification”, often shortened to “phaco”. This technique uses ultrasound to soften the lens, which is then broken up and flushed out using fine instruments and special fluids. A clear artificial lens (intraocular lens implant or IOL), made of a plastic-like material, is placed inside the eye. The back membrane of the lens (capsule) is left behind and this holds the artificial lens in place. The wound is very small and most patients do not require stitches, although very fine stitches are sometimes needed to close the wound safely. This can occasionally cause some temporary post-operative irritation. Depending on the type of stitch used, these may need to be removed. The removal of the stitches is usually done in the clinic and is a quick and painless procedure.



## **What is it like during the operation?**

The operation is performed while you are lying down on your back. Your face is partially covered by a sterile sheet. If you have difficulty lying flat or are claustrophobic, we will do our best to make sure that you are comfortable before the operation starts, but please tell the nurses during your pre-operative assessment. During the operation, the surgeon uses a microscope and the bright light from the microscope and the covering sheet mean that you do not see the operation or the detail of the instruments but you may see moving shapes. Usually you will be awake during the operation and will be aware of a bright light, and often pretty coloured lights and shadows. You may feel the surgeon's hands resting gently on your cheek or forehead. A lot of fluid is used during the operation. Sometimes, excess fluid may escape under the sheet and run down the side of your face, into your ear or on your neck, which can be uncomfortable. You might hear conversations during the operation. These could be about the operation when the surgeons speak with his assistant. Please do not join in as it is important that you remain still during the procedure.

## **What kind of anaesthetic is necessary?**

Most operations for cataract are performed under local anaesthetic, in which you are awake but your eye is numb. This is usually given by eye drops. No sharp needles are used.

## Will I have to stay in?

Cataract surgery is performed on a day care basis. This means you come in, have your operation and are discharged home all in the same day. From arrival to discharge the entire process may take 1 to 2 hours.

## Who will do my operation?

Professor Srinivasan, your consultant will be performing your cataract operation.

## What are my choices for vision and glasses after the operation?

### **Standard monofocal lenses**

Your natural lens, which helps you focus, is removed during the operation and is replaced with an artificial lens, the intraocular lens implant. There is a choice of different strengths (powers) of lenses which, just like different strengths of glasses lenses, affect how clearly you see when looking into the distance or when looking at near things such as reading a book. During your initial assessment, the cataract team will discuss with you whether you want to have better focus for close vision or for distance vision. Most people choose to aim for good distance vision after the operation. If you choose this option, you will usually need reading glasses and you may still need glasses for fine focusing in the distance.

## **Toric lenses (astigmatism correcting lenses)**

Toric lenses are recommended for patients with moderate to high astigmatism undergoing cataract surgery. A toric lens is made of the same material as a standard non-toric lens, but also incorporates astigmatism correction as well. The aim is to improve your vision so that the need for distance glasses is minimised but, as with standard lenses, you will still need to wear glasses for close up work. Toric lenses are not required if you are happy wearing glasses for distance, and are not suitable if you have other eye problems apart from cataract and high astigmatism. The surgery is the same as standard cataract surgery except, once the toric lens has been inserted, it is carefully rotated to the correct position for each patient. A standard lens does not need to be placed so precisely.

There are some potential issues with toric lenses:

- A toric lens may not fully correct the astigmatism and you may still need glasses for distance.
- If complications occur during cataract surgery, it may not be possible to insert a toric lens.
- The lens can rotate and a second operation may be needed to rotate the toric lens back into position for best vision, with the additional risk of further surgery.
- Some patients may require further surgery to remove the toric lens and replace it with a standard lens.



- The alternative options to using toric lenses for those with high astigmatism are glasses or contact lenses.

### **How accurate are the results of cataract surgery?**

The pre-operative measurements usually allow your surgeon to choose a lens implant which gives the desired near or distance vision, but individual patient responses vary and it is not possible to guarantee absolute accuracy. Sometimes, patients can have an unexpected need for moderately strong glasses following surgery despite correctly taken measurements and uncomplicated surgery.

### **Colour vision**

Cataract in your eye scatters and absorbs blue light selectively. After surgery, your lens implant is very clear so a change in colour vision is common. This can be dramatic, especially in the early period after surgery, and can make colours look brighter or bluer than usual. Most lens implants have ultra violet (UV) blocking built in, but you can use sunglasses when outdoors in bright sunlight to block excess UV light reaching the retina. If you have an occupation where colour vision is critical, you should seek specific advice.

### **Do cataract operations have any complications?**

Yes. Serious complications are uncommon but, if they occur, they can permanently damage your eye and your vision. There is an extremely small risk to the other eye of vision loss.

- 1 in 1,000 risk of severe and permanent visual loss
- About 1 in 100 risk of requiring additional surgery to rectify a problem
- 1 in 20 operations have less serious complications, which may require further treatment at the time of surgery or following the operation
- 1 in 10 patients need laser treatment at some time in the future for opacity of the capsule behind the implant

### **What to look out for after surgery**

Increasing redness, pain, blurring of vision or yellow/green discharge: this can indicate a serious infection or inflammation.

Blurring of the central vision: this may indicate macular oedema (water logging of the central part of the retina).

Red sore eye after stopping drops: this can be due to a recurrence of post-operative inflammation inside the eye.

Distorted vision: the implanted lens can move from its original position, causing distorted vision, though this is unusual. If this happens, you

might need further surgery to reposition the displaced lens. A shadow, lights or floaters in your field of vision. The most common cause of a shadow or lights in the peripheral vision is due to the different way that the light is focused on the retina through the new lens implant. Following the operation, you may become aware of a shadow to the side of your vision, often described as a 'half-moon' or 'crescent'. The effect is usually temporary as your eye rapidly adapts to the new lens. Shadows can also be caused by the retina becoming separated from the inner wall of the eye. This is known as a retinal detachment. If you notice an enlarging shadow in your field of vision, especially with increasing floaters or flashing lights, please contact the clinic as soon as possible.

**If you experience any of the above, or you are worried about your eye, you must contact/attend our clinic as soon as possible. If that is not possible, see your optician.**

## **AFTERCARE**

### **Will my eye be covered after the operation?**

Your operated eye will be covered with a protective clear plastic eye shield. Some patients may additionally have an eye pad. If you leave the clinic with a pad you will be told when to remove it yourself and when to start to put in your eye drops. The majority of patients are

advised to wear the protective plastic eye shield when sleeping for approximately one week. Specific advice will be given.

### **How soon after the operation do I go home?**

After the operation, you will have a chance to have a drink and a snack before the nurse or doctor check with you that you are ready to leave. The nurses will check that you have the postoperative instructions and eye drops and then discharge you from the clinic. This usually takes 30-60 minutes.

### **How will my eye feel after the operation?**

As the anaesthetic wears off, there can be a dull ache or a sharp pain like something in the eye, felt in and around your eye. Your eye will also be red, watery and your vision may be very blurred. You can ask the nurse for tablets for pain relief. You may want to use your normal pain relieving tablets when you get home and during the first 24 hours. Your eye usually settles over two to four weeks after the operation although some patients take slightly longer. A slight feeling of grittiness or as if there is a foreign body in your eye can last several months after the operation, as the small wound gradually flattens.

**You should contact us if the pain, redness or blurred vision is getting worse rather than better.**



## **How do I put in the eye drops?**

A nurse will teach you how to look after your eye. You will be shown how to clean your eye and put in the eye drops correctly. In some circumstances, family and friends will be taught how to do this so they can help you.

How to put in the drops

1. Either you can keep your head straight or tilt your head back
2. Gently pull down your lower lid with one hand
3. Look up and allow drops to fall inside lower lid
4. Do not let the tip of the bottle come in contact with your eye

The eye drops help reduce the risk of infection and inflammation after surgery and may be necessary for one to two months.

## **Is there anything else I have to do to care for my eye?**

You should avoid rubbing or touching your eye. This is extremely important in the first one to two weeks after the operation. You might find you are sensitive to light, so it is useful to have a pair of plain dark glasses in case you need them. You can buy these at any chemist or supermarket. The medical and nursing staff will advise you if there are any activities you should avoid. The majority of patients can resume normal physical activity within a day or two. You should be able to return to work the day after your operation, depending on your occupation. If you perform manual work, or a job which requires a lot of use of the eyes, you might require longer. The doctors and nurses in clinic will

advise you. Your eye takes a few weeks to settle and for best vision to be achieved.

### **When can I wash my face and hair after the operation?**

You are advised to be careful when washing: do not directly splash water into your face in the shower or immerse your head in the bath for one week after surgery, but a clean face cloth can safely be used.

### **When can I see my optician for an update to my spectacles?**

You will be advised about tests for spectacles to improve vision (refraction) at your clinic appointment after the operation, but you can usually have your eyes checked for new glasses by your own optician about four to six weeks after the operation. During the time until you have your new glasses, or between having the first and the second eye operation, you may experience some vision difficulties especially if there is a big difference in the glasses prescription between the two eyes. During this time, you may choose to use or not use your old glasses, or for your optician to remove the lens in one side of the glasses, until your final pair of glasses is ready or you have had the operation in both eyes.

### **Does the cataract recur?**

No, but you can develop a thickening or clouding of the posterior capsule membrane behind your new lens implant in the months or years following your surgery, which occurs in approximately one in 10 cataract

surgery patients. This is called posterior capsular opacification and causes blurring of vision. This can be treated as an outpatient with a laser procedure, known as YAG laser capsulotomy. This involves one outpatient visit. It is usually very effective, painless and quick, but can very occasionally cause complications such as retinal detachment or waterlogging of the central part of the retina. The risks of YAG laser treatment are smaller than the risks of the original cataract procedure and will be detailed at your consultation.