



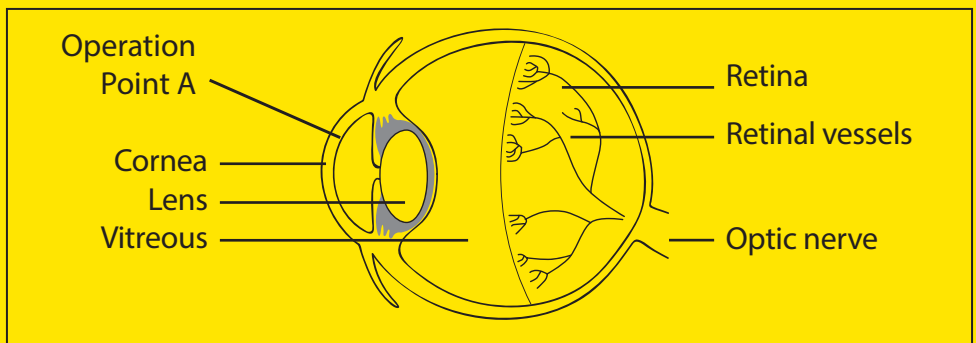
# Cataract Surgery

---

**A cataract is clouding of the lens inside the eye. A cataract is not, as many people believe, a skin that grows over the eye.**

## The lens

The lens is a transparent structure that sits behind the iris (see diagram below). The human eye is rather like a camera: both depend on the lens being clear. If the lens becomes cloudy, the picture becomes blurred and hazy. Therefore, as a cataract develops, the vision will become increasingly poor. You may experience problems, such as blurred vision, glare or colours fading.



## Causes

Usually, cataracts are caused by the ageing process. Less commonly, cataracts can be caused by injury to the eye, prolonged inflammation, an illness such as diabetes, certain drugs, or, occasionally, people are born with them.

## **Treatment/operation**

The only treatment for cataracts is surgery which is performed by an experienced eye surgeon or a doctor in training under the supervision of senior eye surgeon. The operation is usually done under a local anaesthetic, though in some cases a general anaesthetic is given. Under a local anaesthetic, you will be awake during the surgery, but will not feel the operation.

A tiny incision (cut) is made at point A on the diagram. Using special micro-instruments, the cloudy lens is gently broken into smaller pieces and sucked out of the eye. The new lens implant is then inserted. This is permanent. On occasions, stitches are used to close the incision, but most wounds heal themselves without stitches and some irritation due to the healing incision is not unusual.

The operation will take about 20 - 30 minutes to complete and is performed while you are lying down on your back and your face is partially covered by a sterile sheet. If you have difficulties lying flat or are claustrophobic, please tell the staff during your pre-assessment so that we can plan accordingly. Special tests are required to determine the strength of artificial lens implant that would replace the cataract.

These tests are done as a part of the pre-assessment process before the day of the operation. If you have had laser refractive treatment for short or long sight, it is very important that you inform the doctors and nurses during assessment. Excimer laser (LASIK or PRK) affects the calculations that are essential to know the power of lens implant used during cataract surgery.

Even if all the pre-laser information is available and extra calculations are done, such eyes are at higher risk of being more or less long/short sighted than anticipated.

This may require spectacles, contact lenses or further procedures including removal of the artificial lens implant.

You may also require additional tests especially if you need sedation or general anaesthetic.

If you wear contact lens, you must leave them out for a specific time to be able to have the best possible outcome from the operation. The amount of time you have to leave them out is as follows:

- Soft contact lenses: 2 weeks (one week minimum)
- Gas Permeable (Hard) lenses: 4 weeks (2 weeks minimum)

### **Types of Artificial Implants available:**

The cataract is replaced by an artificial lens implant and there is a choice of lens implants available.

#### **1. Standard Monofocal Lenses**

This is the standard lens implant that is used for almost all NHS patients. This aims for good distance vision after the operation and you will need glasses for reading/fine focusing.

Some patients may prefer to read without reading glasses and although this lens can be used to help you achieve this; you will then need glasses to get clear distance vision.

Some patients who are used to having monovision, may be able to deliberately aim for distance vision in one eye and near vision in the other eye.

## **2. Toric lenses**

Toric lenses are available on NHS and are suitable for some patients with moderate to high astigmatism. These lenses are similar to the standard lenses but it corrects corneal astigmatism which is present in some patients especially in patients who have had corneal transplant operations. The aim is to reduce astigmatism to improve vision so that the dependency on thick glasses or contact lenses can be improved. You will still need glasses to read as with standard monofocal lenses.

Toric lenses are not suitable for every eye and are not required if you are happy wearing glasses for all distances. The operation is the same as standard surgery but the toric lens has to be placed in correct position for it to work and is used by specialist eye surgeons. There are some potential risks with toric lenses:

- It may not fully correct astigmatism
- It can only be used if operation is uncomplicated
- It may move in the eye requiring another procedure to rotate it to the correct position
- It may have to be removed in some cases

## **3. Multifocal lenses**

Multifocal lenses aim to correct vision for near, intermediate and far helping you to reduce your dependence on glasses for all distances. These are not currently available routinely on NHS and cannot be purchased separately and implanted during NHS operation. These lenses are not suitable for all patients and may cause specific visual symptoms affecting quality of life of some patients.

If you wish to explore these lenses further, at present it has to be done privately.

## **Complications associated with the operation**

All operations carry a degree of risk. Complications could arise at any stage. Our staff do their best to minimise these risks.

Problems that can occur during the operation are rare but can include:

- when trying to release the cloudy lens, the capsular membrane could tear, causing the cataract to fall to the back of the eye. Further surgery is required to remove it
- a large haemorrhage could occur inside the eye (this is rare)
- the operation could be unsuccessful, resulting in poor vision or even blindness in the operated eye (this is very rare). There is a 1 in 1,000 chance that this could happen.

## **Problems that can occur after surgery are:**

- you may need thicker glasses than expected to achieve good vision or to correct astigmatism
- it is not uncommon for the lens capsule that is left inside the eye to support the new artificial lens to become cloudy, just like a cataract. This is very easily put right by using laser treatment to make a hole in the membrane, enabling you to see again
- an infection can occur which may be difficult to treat. This could mean that your vision will be very poor afterwards, or you may lose your sight permanently
- the pressure inside the eye could increase, which would be treated with medication

- the operation site may leak and this may require a stitch
- there could be swelling at the back of the eye. This is called 'macular oedema', and it can take a long time to resolve. Your vision will be very blurred during this period
- some patients may have a scratch on the surface of the eye. This is very painful and will take a few days to heal. It is treated with eye ointment
- some patients may develop an allergy to the eye drops used after the operation. This can cause the eye to be very sore. Once the eye drops are changed the eye settles down
- some patients can experience inflammation within the eye after surgery. This is resolved by increasing the frequency of the eye drops
- occasionally, at any time up to a year after surgery has taken place, a retinal detachment could occur. This is treated with further surgery
- Clouding of the cornea (clear front window of the eye) is rare and may require a second operation to achieve good vision.

## **Local anaesthetic**

If your operation is performed under a local anaesthetic, you will be able to eat and drink normally before the operation. You will be able to take your normal medication, and you will be able to go home on the same day.

- Our surgeons use two different types of local anaesthetic, one involves an injection under the surface membrane of the eye. This is called a sub-tenons local anaesthetic, and it will numb your eye completely for the operation.
- Occasionally some patients may experience sudden pain or discomfort during surgery.

When the patient communicates this to a member of the theatre staff more anaesthesia can be provided.

- Afterwards some patients can have a small to moderate bleed on the white of the eye, this will resolve on its own. The second involves the use of very strong anaesthetic eye drops to numb the eye, you will feel no pain during the operation.
- Rarely the surgeon may need to give you a peribular local anaesthetic injection. The injection is given around your eye, and will initially sting. The anaesthetic will numb your eye completely, and this numbness will last up to 6 hours.
- Your face and lips may also be numb after the injection, but this too will wear off. You should feel no pain during the operation. The injection sometimes leaves a bruise around the eye, but this will go away without further treatment.

Other complications of this type of anaesthetic are rare but include:

- a very large haemorrhage around the eye
- puncturing of the eye
- an allergic reaction to the anaesthetic
- making the eyelid droop permanently from nerve damage
- making the patient feel very unwell.

## **General anaesthetic**

A general anaesthetic means that you will be asleep for your operation.

Depending on your home circumstances you may not be able to go home on the same day that your operation is performed, but you will be allowed to go home on the following day.

If you have a general anaesthetic for your operation, you will be required to fast (have nothing to eat or drink) before the surgery. You must eat nothing for 6 hours before the operation. You may have a drink of clear fluid such as water no later than 4 hours before the operation. You must not chew gum or suck sweets. You will be required to take your regular medication as normal, with a small amount of water. Failure to follow fasting instructions will lead to operation being cancelled.

General anaesthetics carry a higher risk of complications or problems, than local anaesthesia.

These include:

- allergic reaction to the anaesthetic
- worsening of existing health or breathing problems
- death.

## **Preparation for surgery**

Before attending for surgery please ensure you have washed your face. Patients with Blepharitis must ensure their eye lashes are cleaned as previously instructed from the eye clinic. On the day of your operation, the nurses in the Theatre Admissions Unit or ward will put a lot of eye drops into your eye. These drops are to make the pupil in your eye big prior to your operation.

When your turn comes, you will be taken into the anaesthetic room and be given the desired anaesthetic. Once you are ready, you will be taken into the operating theatre, where you will be laid flat on your back with one special theatre pillow under your head. You will need to lie very still for the surgery. Sterile drapes are placed over your face, and air is given to you to prevent you from getting 'stuffy' under the drapes.



A nurse will hold your hand during the operation if needed and will check that you are comfortable. If you experience any problems once the operation has begun, please inform the theatre staff immediately. After the operation you will be taken to the ward.

## **After the operation**

You will need to stay in the ward for about one and a half hours, and you will be able to go home as soon as you feel fit enough to do so.

### **Please note the following points about your aftercare:**

- 1** On the day of your operation you will need someone with transport to collect you and take you home. Please do not go home on the bus
- 2** You will be given eye drops to put into your operated eye four to six times a day. You will need to put these in yourself or make arrangements for someone to do this for you
- 3** You may be given a further outpatient appointment to check your eye after the operation. This may be within 24 hours, or could be up to a week after the surgery
- 4** You will need to visit the optician four to six weeks after your operation. It is essential to have this check and the opticians' report is mandatory before the second eye can be operated upon. Do not arrange a visit before this time unless you have been advised by our doctors to do so.

## **Discharge advice following eye surgery**

Please follow this advice after your eye operation:

- wash your hands before putting your eye drops in
- do not press on your eye
- do not rub your eye
- never use a handkerchief to wipe your eye. Always use a clean tissue that can be disposed of after use
- do not use an eye bath, as this could cause an infection
- avoid very strenuous exercise and swimming for 4 - 6 weeks
- avoid driving until the doctor advises you that you may do so, which could be up to 4 - 6 weeks after surgery
- you can resume a normal sex life after the operation
- if you work, ask the doctor when you can return to work, as this will depend upon the nature of your job. A fit note can be issued to you by the ward
- if your eye needs bathing use cool, boiled water and clean cotton wool to wipe gently around the eyelids
- you may still wear your old glasses after the operation. Do not order new glasses until 4 - 6 weeks after the operation
- you may watch TV, go shopping, and do your cooking and housework.

## **How to instill your eye drops**

There are various ways in which you can put eye drops into your eyes. If you are experiencing problems putting in the drops, please ask the nurses on the ward or in the outpatient department for advice.

You can also buy devices from the chemist/pharmacy to help you instill the drops:

Eye Clinic

---

- always wash your hands before instilling eye drops
- sit or lie comfortably with your head tilted backwards, looking at the ceiling
- gently pull down the lower eyelid with one finger, but do not touch the upper eyelid
- place the neck of the eye drop bottle on the bridge of your nose, and squeeze one drop into your eye. Do not let the nozzle of the bottle touch your eye
- close your eye and gently blot away any excess solution with a clean tissue
- replace the cap of the eye drop bottle immediately after use.

## **Complications**

The majority of patients who undergo cataract surgery have no problems and their recovery is good.

However, should you experience any of the following problems, please ring the Eye Clinic immediately:

- if your vision suddenly becomes increasingly blurred
- if you have severe pain in the operated eye (a 'gritty' feeling is normal)
- if your eye is getting red and becoming sticky
- if you develop a sudden increase of 'floaters', or notice a 'veil' coming down across your vision.

## **Contact numbers**

This information leaflet may not cover all possible aspects of the operation.

If you have any questions before the operation, these can be addressed at the pre-assessment.

Please use the following numbers after the operation if you experience any problems:

**The Eye Clinic at Doncaster Royal Infirmary**

Tel: **01302 644141** between **8:30** and **6:00pm**, Monday to Friday. Please hold to leave a message to speak to a nurse.

**Ward S12 at Doncaster Royal Infirmary**

Tel: **01302 642412** out of hours, weekends and Bank Holidays.

**Patient Experience Team**

The team are available to help with any concerns/complaints you may have about your experience at the Trust. Their office is in the Main Foyer

(Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email.

**The contact details are:**

**Telephone:** 01302 642764 or 0800 028 8059

**Email:** [dbth.pals.dbh@nhs.net](mailto:dbth.pals.dbh@nhs.net)