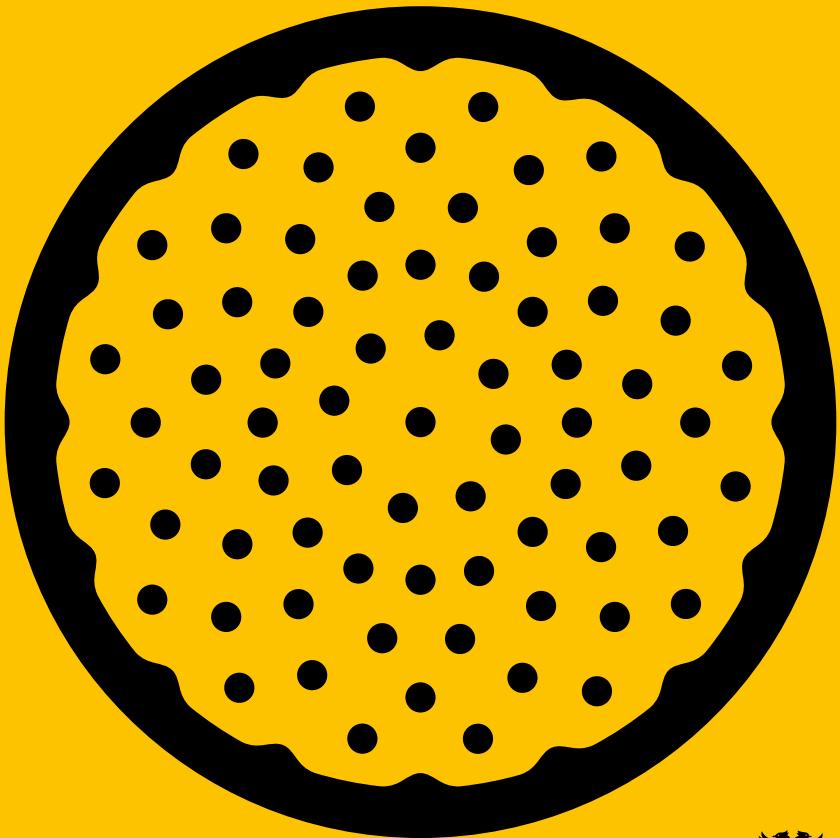


R N I B

Understanding

See differently

# Cataracts



The ROYAL COLLEGE of  
OPHTHALMOLOGISTS

## Contact us

We're here to answer any questions you have about your eye condition or treatment. If you need further information about cataracts or on coping with changes in your vision, then our Helpline is there for you.

Just give us a call on **0303 123 9999** or email us at **helpline@rnib.org.uk** and we'll be happy to speak with you.

## RNIB's Understanding series

The Understanding series is designed to help you, your friends and family understand a little bit more about your eye condition.

The series covers a range of eye conditions, and is available in audio, print and braille formats.

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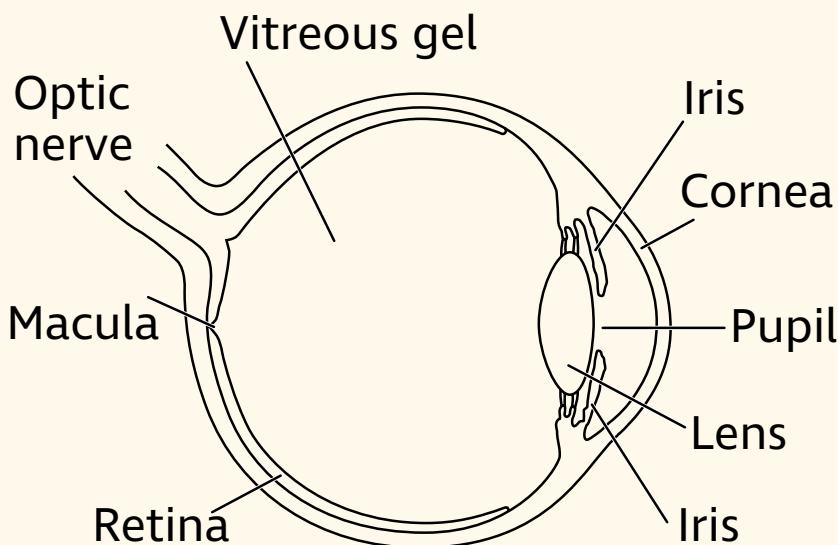
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# What are cataracts?

A cataract is a clouding of the lens in your eye.

Your lens sits just behind your iris, the coloured part of your eye. Normally your lens is clear and helps to focus the light entering your eye. Developing cataracts will cause your sight to become cloudy and misty. Cataracts usually affect both eyes but can affect just one eye, or affect one eye before the other.

Cataracts are treated by surgery, during which the cloudy lens is removed and replaced by an artificial lens.



# How your eye works

When you look at something, light passes through the front of your eye, and is focused by the cornea and then the lens onto the retina. The lens is normally clear so that light can pass directly through to focus on your retina (the lens is clear because of the way the cells in the lens are arranged). When the lens focuses light onto the retina, the light is converted to electrical signals. A network of nerves delivers these signals from the different parts of the retina to the optic nerve and onto the brain. The brain interprets these signals to "see" the world around us.

The lens can change shape, allowing us to focus on objects at different distances – this is called "accommodation of vision". As we get older, the lens isn't able to change shape as well as it used to – even people who can see clearly in the distance without glasses will need reading glasses to see things up close. This is a natural change in focusing which occurs in your 40s and is called presbyopia.

Cataracts result from changes in the way the cells of the lens are arranged and their water content, which causes the lens to become cloudy instead of clear. When this happens, light cannot pass directly through the lens and you may notice problems with your vision. A cataract is not a growth or a film growing over the eye; it is simply the lens becoming cloudy. Other people will not be able to see that you have cataract because it is inside your eye.



# Do I have cataracts?

Cataracts normally develop very slowly. At first, the changes they make to your sight may be difficult to notice, but as they get worse you'll start to notice symptoms such as:

- You feel like your glasses are dirty and need cleaning, even when they don't.
- Your sight is misty and cloudy.
- You're more sensitive to light – bright sunlight or car headlamps may glare more.
- Everything looks a little more washed out than it should be.

Eventually, almost all people with cataracts will find that their sight has turned misty or cloudy, and things have become difficult to see all of the time.

Cataracts sometimes develop so slowly that you might not notice the changes in your vision, but when you have your regular eye test, your optometrist (also known as an optician) may detect them.

## What can be done about cataracts?

Cataracts can be removed by surgery. Cataract surgery removes your cloudy lens and replaces it with an artificial lens. This lens is known as an intra ocular lens – often shortened to IOL. The artificial lens is made of plastic or silicone, and will not need to be changed for the rest of your life.

There isn't any medicine or drops that can remove cataracts – surgery is the only way to treat them. Unfortunately, there's nothing you can do to stop cataracts from developing or getting worse.

Normally, if you have cataracts in both eyes, they will be removed separately. You'll have one eye operated on and then once this eye is healed, you'll have the cataract in your other eye removed.

# Why have I developed cataracts?

Developing cataracts is a normal part of growing older. Most people start to develop cataracts after the age of 65, but some people in their forties and fifties can also develop cataracts.

Certain things make it more likely that you will develop cataracts:

- Diabetes – people who have diabetes often develop cataracts earlier.
- Trauma – having an eye injury can cause the injured eye to develop a cataract.
- Medications – some prescription drugs can cause cataracts, for example steroids.
- Eye surgery – surgery for a retinal problem will likely lead to cataracts in the affected eye at some point in the future.
- Eye conditions – other eye conditions, such as retinitis pigmentosa, glaucoma or uveitis, may also cause cataracts.
- Having high myopia (being very short sighted) may cause cataracts.
- People who have learning disabilities are more likely to develop cataracts.

Cataracts caused by aging, medications and other eye conditions usually develop in both eyes. Cataracts caused by an eye injury or eye surgery only develop in the affected eye.

Despite the different causes, most cataracts are dealt with using the same type of surgery.

Some children have cataracts, which are dealt with in a different way. RNIB has information on congenital cataracts (also known as childhood cataracts) on our website.



# When should I have my cataract surgery?

Cataracts can be removed at any stage. You don't have to wait for them to "ripen" before having surgery.

Making the decision to have your cataracts removed depends on a number of things:

- how badly your sight is affected
- whether you have any other eye conditions
- if you only have sight in one eye
- how you use your sight from day to day.

The decision to have your cataracts removed comes down to whether the benefit of having the operation outweighs the small risk attached to the surgery.

If you have no other eye conditions or health concerns, then the benefit of having your cataracts removed usually outweighs the risk of surgery. For example, if you're finding it difficult to read, use a computer or drive, then removing your cataracts may be necessary.

The timing of surgery is different for everyone. If you make your living by driving, for example, you

may need your cataracts removed earlier than someone who doesn't drive.

If you have another eye condition, it may be possible to have your cataracts removed, but there may be more concerns about complications. Your ophthalmologist (also known as a hospital eye doctor) may want to delay the operation for as long as possible to put off the slight risk of the surgery, but this needs to be balanced with how much of your sight is being affected by cataracts.

If you have sight in only one eye, your ophthalmologist may recommend putting off surgery for as long as possible. Having sight in only one eye doesn't make the cataract surgery more difficult, but any serious complication which affects your sight would mean the outcome is worse when compared to someone with sight in both eyes. By delaying the operation for as long as possible, this risk is avoided until the operation is really necessary.

Once you are offered surgery for your cataracts, it's your decision when to have your cataracts treated. Cataracts only affect the lens and no other part of your eye. If you decide to put off surgery, your sight will become increasingly cloudy, but the results of your surgery, no

matter how delayed, will be the same as if you had it done earlier. You don't have to worry that you're permanently damaging your vision by delaying surgery.

Your ophthalmologist or optometrist will be able to help you decide when to have treatment.

If you drive and you have cataracts in both eyes you should check with your optometrist that you are still able to reach the vision standard set by the Driver and Vehicle Licensing Authority (DVLA).

## **How long will I have to wait for surgery?**

How long you might have to wait for cataract surgery can depend on the waiting lists in your local area. There are guidelines which state how long your maximum wait should be on the NHS.

If your vision due to your cataracts is causing you difficulties with day to day activities, you should speak to your eye clinic and let them know. You can also speak to your GP if there are very long waiting lists in your area.

Cataracts can be treated successfully at any stage in their development. However, coping with poor vision while waiting for surgery can be difficult, especially if both eyes are affected. There are a lot of things you can do to make the

most of your vision while you wait for treatment. This may mean making things bigger, using brighter lighting, or using colour to make things easier to see. However, once you've had cataract surgery, your vision should return to how it was before the cataract developed.



# What will happen before surgery?

Before your surgery, you'll have a pre-assessment appointment. At this appointment, your eye will be examined and measured. Measurements of the shape of the front of your eye and the length of your eye will help the ophthalmologist decide which lens to implant into your eye.

If you have had any previous surgery to your eye, including laser surgery to reduce your need for glasses, you should tell your ophthalmologist or nurse at this appointment.

This assessment will also check if your general health is good enough for surgery.

You should let your ophthalmologist know of any medication you are taking and any general health problems you have, so that they can advise you of any preparation you need to make before the surgery.

If you wear contact lenses, you should discuss this with your ophthalmologist before surgery, as you may be required to leave them out for a few days in preparation for the surgery.

# What happens during cataract surgery?

Cataract surgery removes your natural lens and replaces it with an artificial lens implant. This will make your sight clear again.

Almost all cataract surgery in the UK is performed by phacoemulsification. This is a way of removing your cataracts with an instrument which uses sound waves to break up the lens in your eye.

Most people have the operation under a local anaesthetic. This means that you'll be awake during the operation but you won't feel any pain. Your local anaesthetic may be just eye drops, an injection, or a combination of both.

Most cataract operations are performed as day-case procedures, meaning that you won't stay in a hospital overnight. You should probably plan to be at the hospital for all or most of the day of your surgery. Your hospital will tell you how the cataract surgery is organised, including when to arrive, how to get to the hospital and when you can expect to leave.

If you think that having the operation with a local anaesthetic may be difficult, speak to your ophthalmologist as soon as you can. It's possible to have the cataract surgery under general anaesthetic in certain situations. However, because a general anaesthetic has more risks, it's usually only offered to people who would have real difficulty with a local anaesthetic – for example, someone with uncontrolled movement problems, or someone who has difficulties lying flat, or someone who may struggle to follow instructions because of dementia or learning difficulties. If you have your surgery under general anaesthetic, you may need to stay in the hospital overnight; your ophthalmologist will let you know if that is the case.



# How are cataracts removed?

Cataract surgery is carried out in a hospital operating theatre. Before the surgery, you'll be given local anaesthetic drops and or an anaesthetic injection to numb your eye. You'll also be given drops to dilate (widen) your pupil. The drops can take a while to take affect and you will have to wait until your pupils are fully dilated.

Usually, the nurse or ophthalmologist will clean your eye and the area around it to help prevent infection. Your face will then be covered with a sterile sheet so that only the eye being operated on is exposed (this also protects you from infection). Once your eye is numb and your pupil is dilated, your ophthalmologist will continue with the operation.

During the surgery you may be able to see movement and a change in lights or shadows, but it's unlikely that you will be able to see any detail of what's happening.

Your ophthalmologist will make some very small cuts through the cornea, which is the clear front of your eye. This allows them to introduce instruments through your dilated pupil to reach your lens.

The lens in your eye is made up of different layers, and the outside layer is called the lens capsule. During the operation, the ophthalmologist cuts through the front of the lens capsule so they can reach the lens inside. The ophthalmologist uses a probe to break up your lens and remove it using suction. Your lens capsule is kept in place so that the artificial lens implant can be placed inside it. The lens implant is small and flexible, and is folded so that it can be put into your eye through the same incision. The lens implant unfolds within the eye and is held in place by the lens capsule.

The operation usually takes between 20 and 45 minutes, although this can vary. Your ophthalmologist will be able to let you know how long they expect your operation to take.

At the end of the operation your eye may be covered with a dressing to keep it clean. You will be seen after the surgery and when your ophthalmology team is happy with your eye, you'll be able to go home.

After surgery, your vision will be blurry because of the drops that were used to dilate your pupils, and this may take several hours to wear off. You should not drive yourself home after the surgery, and you should also take care on stairs and steps until your vision is back to normal.

# Recovering from cataract surgery

Your eye may feel sore once the local anaesthetic begins to wear off. The hospital will tell you how to deal with this pain, but usually, it can be helped by taking over-the-counter painkillers such as paracetamol. If you have a dressing on your eye from when you left the hospital, you should keep it in place overnight, as this will help protect the eye. Normally, you can remove the dressing the next day, and after this, you can leave your eye uncovered during the day. At night you may be given a plastic eye shield to wear, which will prevent you from accidentally rubbing your eye while you're sleeping.

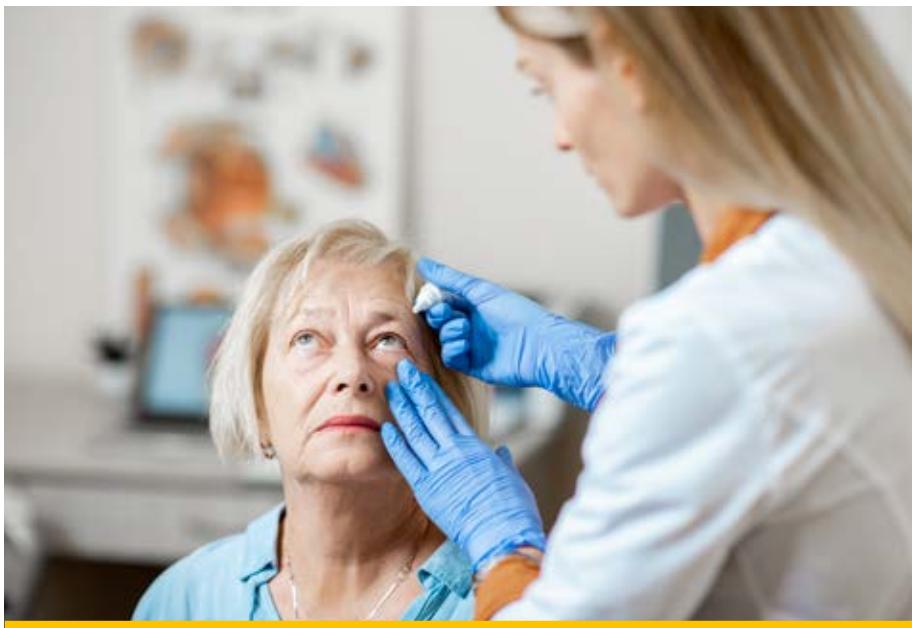
You'll be given instructions from your ophthalmologist about how long to use this. If you're not sure, make sure you ask before you leave the hospital.

Your eye may look red when you remove the dressing and you may notice some bruising around your eye. This is normal and should improve after a couple of days.

Most people recover very quickly following cataract surgery and you may feel back to normal the day after your operation. Some people might feel more tired than usual after

the surgery, but after a few days you'll start to feel back to normal.

After surgery, you'll have a course of drops – an antibiotic, which helps to prevent any infection, and a steroid or non-steroidal anti-inflammatory drop to help control any swelling and to help your eye to heal. It is important to finish this course of treatment. For most people, this means taking the drops for at least two weeks. Your ophthalmology team will let you know what you need to do. If you think that you'll have difficulty putting drops into your eyes after the surgery, then you should discuss this with your ophthalmologist before your operation.



# What will my sight be like after the operation?

When you take the dressing off your eye, you may notice your vision is brighter and maybe clearer than it was before the operation. You might notice this change straight away as soon as you remove the dressing, but it may also take a couple of days for your sight to improve. Within two to five days, your eye should be feeling normal and the cloudiness caused by your cataract should be improved.

The lens that is implanted in your eye is usually designed to give you clear distance vision without needing glasses. Sometimes this is not quite achieved and you'll need a pair of distance glasses to fine-tune the focus and to get the best possible distance vision. Because the lens implant isn't able to change focus from distance to near vision, almost everyone needs to wear reading glasses after the operation, and this will usually be a different pair from the one you had before the operation.

As you may need cataract surgery in both eyes, your ophthalmologist may recommend waiting about six weeks after your second

operation before trying to get a new pair of reading glasses.

Although all the calculations and measurements done before the surgery may have been correct, you may still find that you need both distance and near glasses afterwards, to give you the best possible vision. This is because the aim of cataract surgery is to give you clear vision, rather than to remove your need for glasses.

Some lens implants, known as multifocal lens implants, aim to correct both your distance and near vision so that you no longer need to wear any glasses. These are only available privately.



However, some people who choose these lens implants may still require glasses, either for reading, for distance or sometimes for both. Because of this, they aren't available on the NHS at present. Your ophthalmologist may be able to discuss the pros and cons of these types of lens implants with you.

Talk to your ophthalmologist if you want to discuss how your eyes will be corrected following your operation.

You can only have cataract surgery on one eye at a time. If you need surgery on both your eyes (most people do), your ophthalmologist will schedule your operations six weeks to three months apart.

If you are very shortsighted or very longsighted, you may have some difficulty with unbalanced vision or double vision after your first eye is treated and while you are waiting for your second eye surgery. This is because you will have a reduced spectacle prescription in the treated eye only. It's important that you discuss this with your ophthalmologist before the surgery so that you know how you can manage between the two operations.

# **What are the complications of cataract surgery?**

Cataract surgery is a safe and successful operation. The chances of having a serious complication are very low. The risk of having complications that could affect your sight in the long term is even lower.

Generally speaking, you have a 97 per cent chance of your cataract operation being successful, meaning you'll have a good level of clear vision following the operation.

The most likely complication following the surgery is called posterior capsule opacification (PCO). This is where your lens capsule, which holds the lens implant in place, becomes cloudy. This can occur weeks, months or years after surgery. This cloudiness will affect your vision. If this happens, you will usually be offered a simple laser procedure to make your sight clear again. Approximately one in 10 patients will develop PCO within two years of their cataract surgery.

**More information about PCO can be found on our website [rnib.org.uk](http://rnib.org.uk) or by calling our Helpline on 0303 123 9999.**

Another complication of cataract surgery is macular oedema. This is where fluid collects in the central part of your retina, called the macula. It usually occurs within a few weeks of surgery and will often resolve on its own. It can make your central vision blurry or distorted until the fluid resolves. Sometimes you might be prescribed additional eye drops to help clear this up. However, any change in your vision should be checked by your ophthalmologist straight away.

There are some very rare but serious complications that may occur which can put your vision at risk. The chance of these happening is approximately one in 1,000.

These include:

- retinal detachment
- problems with the position of the lens implant
- a break in the lens capsule
- infection.

If you have any unexpected symptoms after your operation, such as blurriness or distortion in your vision, flashing lights or floaters, redness, pain, or light sensitivity, you should contact your ophthalmologist straight away as these can be symptoms of complications.

If you do have any of these rare complications, the sooner that treatment is given, the better the outcome for your sight.

If you're concerned about the risks of your cataract operation, then you should discuss this with your ophthalmologist before the surgery.

It is important to remember that most people who have cataract surgery have no problems at all.

It is not possible for cataracts to grow back after surgery. This is because the lens has been removed and the new plastic lens cannot develop a cataract.



# Do I need to avoid any activities after my surgery?

You'll probably feel back to normal within two to three days. If you're working, you may feel fit enough to go back soon after the operation, depending on the nature of your job.

However, there are some things that you should probably try to avoid for the first seven to 10 days:

- rubbing your eye
- strenuous activity and heavy lifting – lifting up light shopping is fine, but you will want to avoid activities such as moving heavy furniture
- wearing eye make-up – until your ophthalmology team is happy that your eye has fully recovered.

You may also need to be careful in these situations:

- when it's windy outdoors, in case something blows into your eye, though it's OK to get out and about
- in dusty environments – very dusty places may irritate your eye

- when washing your hair and face – be careful not to get soapy, dirty water into your eye when you're washing.

You may also find that lights seem brighter than normal immediately after your operation, but this should get better with time. Sunglasses may help with these symptoms in the meantime.

Until your eye is fully healed, you should not:

- go swimming even with goggles – as it may cause an infection
- take part in contact sports, such as boxing, karate, rugby or other sports which risk a blow to the eye.

Your ophthalmologist will tell you at your follow up appointment if your eye is healed and whether you can go back to your normal activities, including the ones listed here. If you are concerned about doing a specific activity, be sure to discuss this with your ophthalmologist. It may be worth avoiding any activities you are worried about until you've had your follow up appointment.

Most people are able to drive soon after their cataract operation. However, if you have a strong glasses prescription, you may have an imbalance in your vision between your operations. You should ask your ophthalmologist for advice about driving if you have an imbalance or if you have any other eye condition.



## **Further help and support**

If you have any questions about anything you've read in this publication, or just want someone to speak to about your eye condition, please get in touch with us.

Our Helpline is your direct line to the support, advice and services you need. Whether you want to know more about your eye condition, buy a product from our shop, join our library, find out about possible benefit entitlements, or be put in touch with a trained counsellor, we're only a call away.

It's also a way for you to join RNIB Connect, our community for anyone affected by sight loss. RNIB Connect is free to join and you'll have the chance to meet other people with similar experiences in our helpful, welcoming and supportive community.

Give us a call today to find out how we can help you.

We're ready to answer your call Monday to Friday 8am to 8pm and Saturday 9.30am to 1pm.

**RNIB Helpline**  
**0303 123 9999**  
**[helpline@rnib.org.uk](mailto:helpline@rnib.org.uk)**

You can also get in touch by post or by visiting our website:

**RNIB**  
**105 Judd Street**  
**London WC1H 9NE**  
**[rnib.org.uk](http://rnib.org.uk)**

## **Other useful contacts**

**Driver and Vehicle Licensing Authority (DVLA)**  
Drivers' Medical Enquiries  
Swansea SA99 1TU  
**0300 790 6806**  
**[www.dvla.gov.uk](http://www.dvla.gov.uk)**

## We value your feedback

You can help us improve this publication by letting us know what you think about it. Please complete and return the form opposite to:

**RNIB**  
Eye Health Information  
105 Judd Street  
London  
WC1H 9NE

You can also email us at  
[eyehealth@rnib.org.uk](mailto:eyehealth@rnib.org.uk)

Please include your contact details if you're requesting information.



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# Information sources

RNIB and The Royal College of Ophthalmologists do all we can to ensure that the information we supply is accurate, up to date and in line with the latest research and expertise.

This publication uses information from:

- The Royal College of Ophthalmologists' guidelines for treatment
- clinical research and studies obtained through literature reviews
- specific support groups for individual conditions
- medical text books
- RNIB publications and research.

For a full list of references and information sources used in the compilation of this publication, email **eyehealth@rnib.org.uk**.

# About The Royal College of Ophthalmologists

The Royal College of Ophthalmologists champions excellence in the practice of ophthalmology and is the only professional membership body for medically qualified ophthalmologists.

The College is unable to offer direct advice to patients. If you're concerned about the health of your eyes, you should seek medical advice from your GP or ophthalmologist.

**[rcophth.ac.uk](http://rcophth.ac.uk)**



**If you or someone you know is living with sight loss, we're here to help.**

**RNIB Helpline**

**0303 123 9999**

**helpline@rnib.org.uk**

The Sight Advice FAQ answers questions about living with sight loss, eye health or being newly diagnosed with a sight condition. It is produced by RNIB in partnership with a number of other sight loss organisations. [sightadvicefaq.org.uk](http://sightadvicefaq.org.uk)

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