



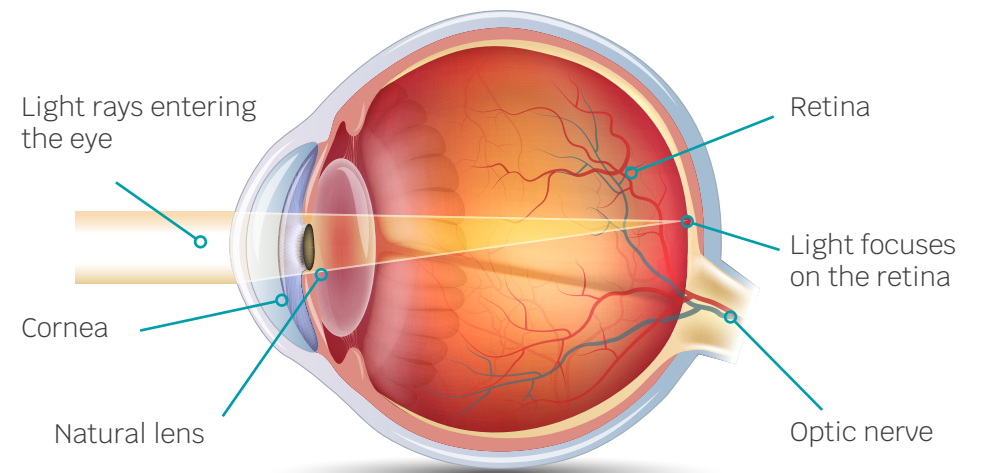
UNDERSTANDING
CATARACT SURGERY





YOUR EYES ARE YOUR WINDOW TO THE WORLD

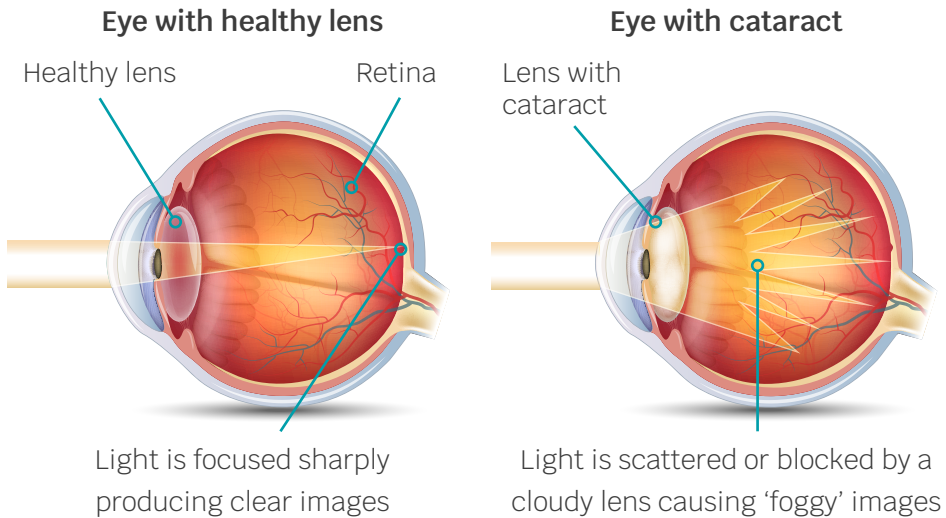
The lens of the human eye works just like the lens of a camera. These tiny cameras spend everyday processing information which turn into images we see almost instantly, allowing us to experience the world around us.



Light passes through our natural lens, located near the front of the eye to produce a sharp image on the retina at the back of the eye. This image is then sent to the brain by the optic nerve, allowing you to see.

EVERYTHING YOU NEED TO KNOW ABOUT CATARACTS

When the natural lens of the eye becomes cloudy or opaque, light is unable to pass through it and your vision is blurred. This condition is known as a cataract.



Cataracts are a very common condition of the eye and can affect one or both eyes. Though the precise cause of cataracts is unknown, most are associated with aging. Most people over the age of 60 have some changes in their lens and most of us will develop a cataract in time. Apart from getting older, the other common causes of cataracts include:

- Diabetes
- Eye surgery for eye conditions
- Trauma
- Medications such as steroids
- Smoking
- Miscellaneous eye conditions

Initially, you may not even be aware that a cataract is developing. As the cataract progresses, you may notice a deterioration of one or more of the following:

- General deterioration of vision (your distance and/or reading vision)
- Clouded or blurred vision
- Increased sensitivity to light and glare
- Fogged field of vision
- Reduced contrasts, contours and/or faded colours
- Deterioration of spatial perception
- Increasing difficulty with vision in twilight and darkness
- Seeing double and triple images



Normal vision



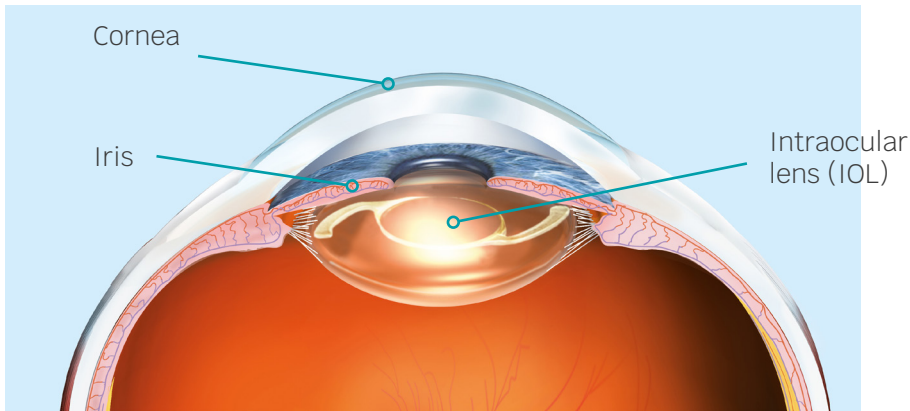
Vision with a cataract

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TREATING YOUR CATARACTS

Once cataracts have developed, no medication, eye drops, or glasses will be able to treat them. Removing the cataract surgically and replacing it with an artificial lens, known as an intraocular lens or IOL, is the only form of treatment for a cataract.

Cataract surgery is the most common surgical procedure performed in the world today with approximately 21 million procedures carried out globally each year.

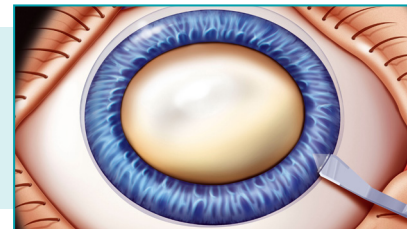


Your vision and your eye will be assessed prior to the surgery using modern pre-operative screening technology to determine the best possible visual outcome for you. The internal dimensions of your eye will be measured to calculate the required IOL power.

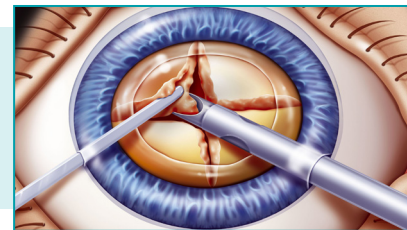
There are different types of IOLs available, so your ophthalmologist will go through the various options with you to determine the lens that will best suit your lifestyle and visual needs.

Using a technique called phaco emulsification, the cloudy or opacified lens is broken up into small fragments by an ultrasonic frequency or laser. The lens material is then gently removed, and an IOL is inserted into the eye. Thanks to modern cataract surgery no stitches are required as the procedure is performed through a small incision of approximately 2.0–3.0mm. This is an outpatient procedure which generally requires no overnight stay in the clinic or hospital.

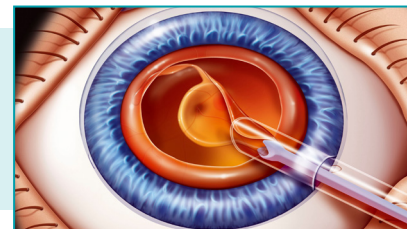
The procedure is as follows...



Step 1:
Incision



Step 2:
Cloudy lens removed using
phaco emulsification



Step 3:
Lens implanted
into position

INTRAOCULAR LENSES

The lenses used in cataract surgery are referred to as intraocular lenses or IOLs, and are highly innovative in design. Most modern IOLs are available in different variations with different optical functions.

Monofocal intraocular lenses

Monofocal lenses have been used in cataract surgery for many years. They are still the most common IOL used today and have restored quality vision to millions of patients worldwide. This type of lens is designed to give you clear, crisp vision with a fixed focus for one distance – either close, medium or distance vision. Most commonly these lenses are used to restore distance vision which is important for driving. You would still need to continue wearing glasses for other distances like reading and working on your computer.

Monofocal lenses are available with the following additional features:

- **Aspheric lens surface** - Due to their unique shape, aspheric lenses provide a higher image quality and contrast clarity than a standard spherical IOL.



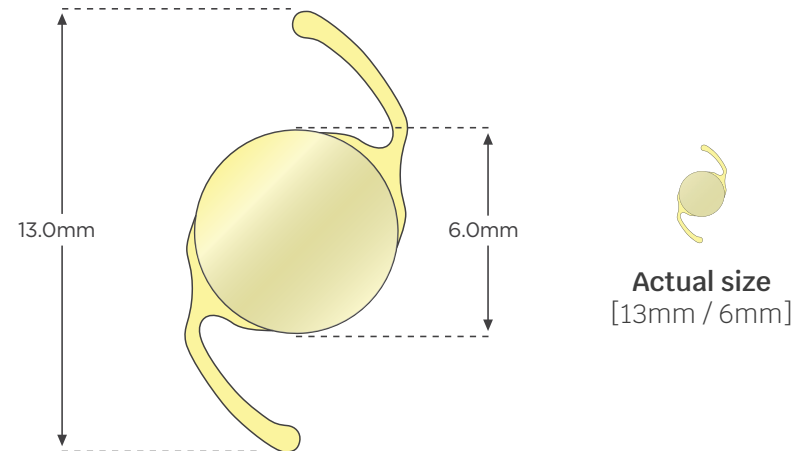
Spherical vision



Aspherical vision

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- **Ultraviolet (UV) filter** – The IOL has a UV filter just like that of the natural lens to protect the retina from overexposure to UV radiation.
- **Blue-light-filter/yellow lens** – Over the course of a lifetime the natural lens of the eye starts to yellow due to the deposit of yellow pigment on the lens. This yellowing of the natural lens protects the retina from the high energy blue component of light in the long term.



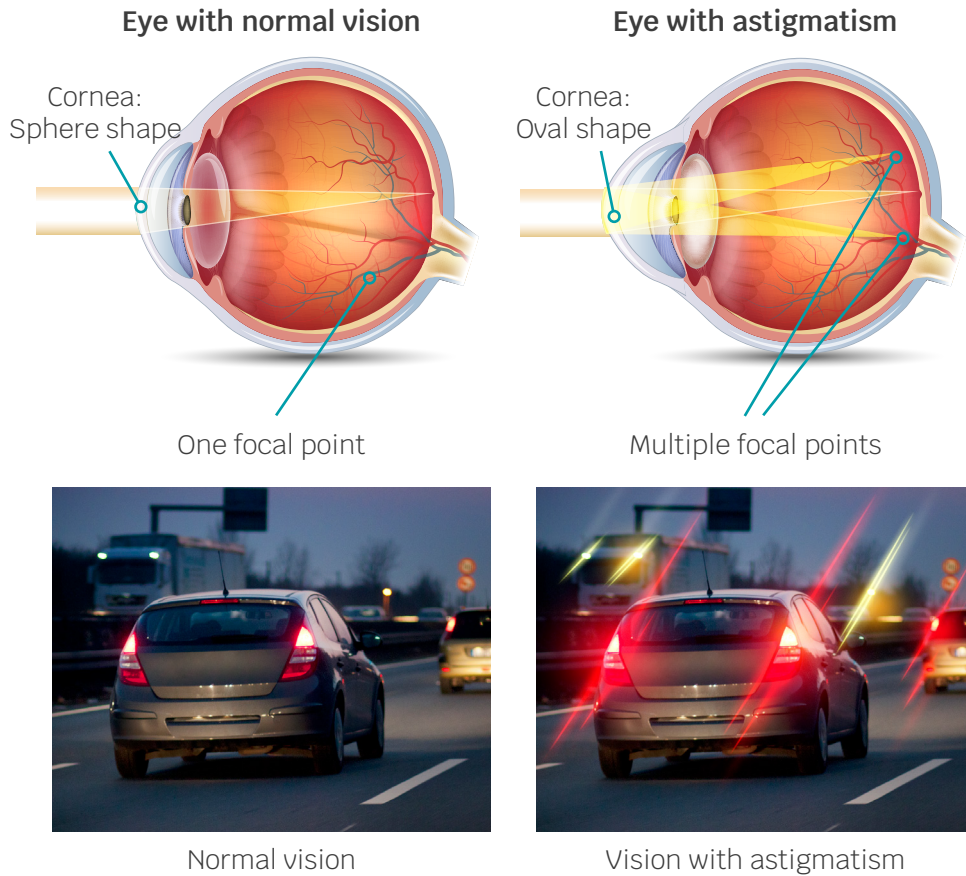
During cataract surgery the natural lens of the eye is removed and therefore the natural protection against harmful blue light is lost. Blue-light-filter/yellow IOLs can counteract this loss. The yellow colouring in these IOLs mimics that of the natural lens, therefore protecting the retina from possible damage.

- **Monofocal toric intraocular lenses** - Some patients not only experience clouding of their natural lens (cataracts) but have other visual disorders like astigmatism.

Find out more on the next page.

ASTIGMATISM

Astigmatism refers to irregularities in the corneal structure of the eye. With an astigmatism, the normal spherical shape of the eye takes on an elongated, more oval shape, leading to distorted and blurred vision. High levels of corneal astigmatism may also be associated with visual distortions.



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During cataract surgery, a toric IOL makes it possible to correct astigmatism in addition to treating the cataract.

Monofocal toric intraocular lenses feature:

- The ability to correct corneal curvatures
- An aspheric surface to enable maximum visual performance
- UV protection because of the integrated UV filter

The choice of IOL is always based on the condition of your eyes, your circumstances, and your individual requirements to create the best possible visual outcome for you.

Like the lenses of prescription eyeglasses, your IOLs will contain the appropriate prescription to give you the best vision possible.



Speak to a healthcare professional or your ophthalmologist about any questions or concerns you may have. Together, you can discuss the procedure, plan your aftercare and find the best possible lens to suit you.

WHO ARE KOWA?

KOWA is a Japanese healthcare company which is one of the leading suppliers of ophthalmic diagnostic systems and imaging software as well as IOLs in the world.



After starting out as a family owned business, KOWA has contributed **over 70 years** of pioneering to ophthalmology, now with **over 6000 employees globally** and a local presence in nearly **100 affiliates** worldwide.

This brochure is only for basic information and should not be considered as medical advice or a substitute for obtaining your own medical consultation. Please speak to your healthcare professional or your ophthalmologist for any further questions.

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