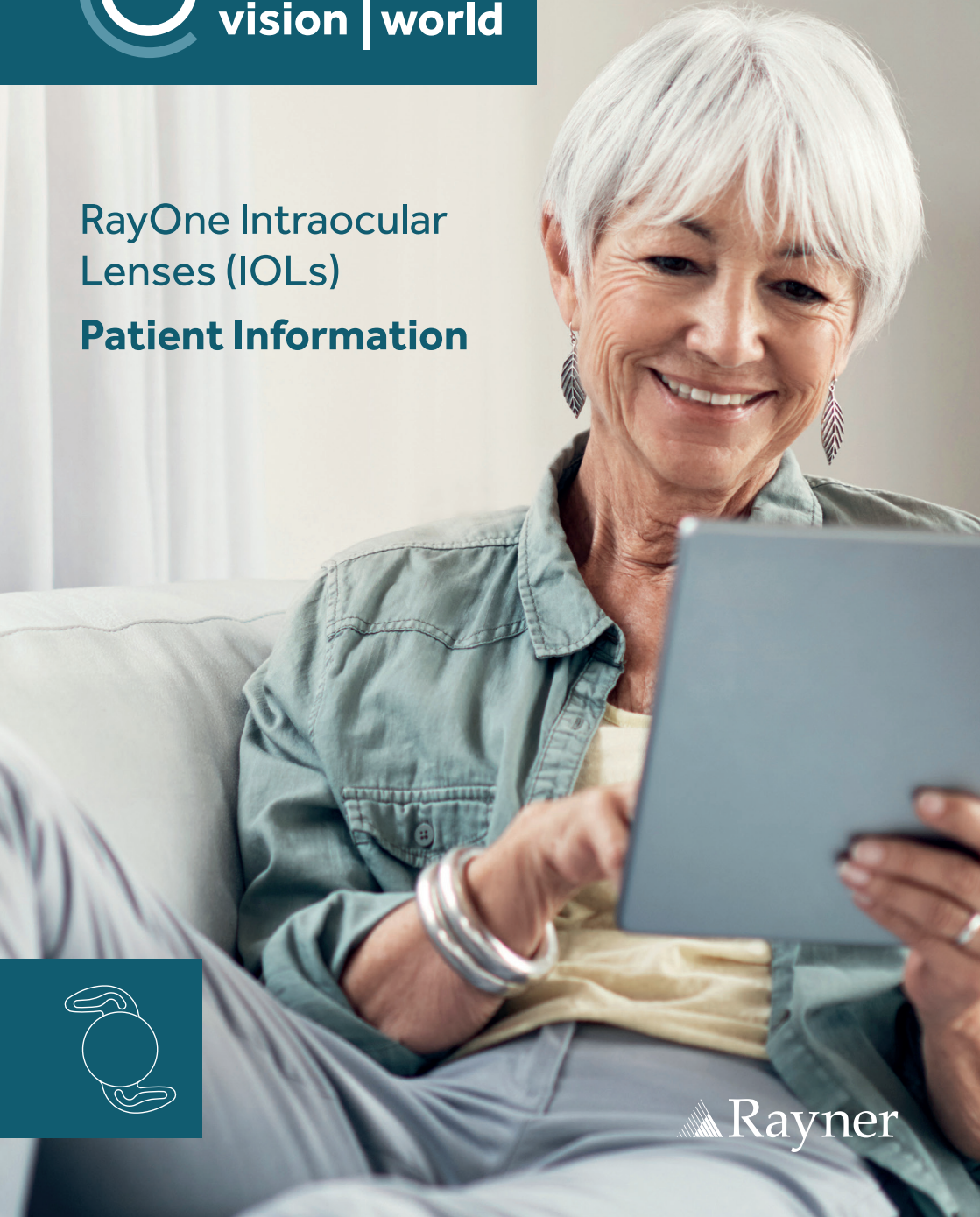




Your vision | Your world

RayOne Intraocular Lenses (IOLs)
Patient Information



 Rayner

About cataract surgery and intraocular lenses

This leaflet is intended to provide you with helpful information about a product used during eye surgery called an Intraocular Lens, often referred to as an 'IOL'.

An IOL is a small acrylic lens that replaces the natural crystalline lens in your eye that focuses incoming light onto the back of the eye (the retina). The crystalline lens is removed during surgery, typically following the formation of a cataract.

A cataract occurs when the natural crystalline lens becomes cloudy or loses its transparency from the introduction of natural proteins that build up over time. Your vision becomes blurry, hazy or less colourful with a cataract. A common indication of when a cataract has developed is when your vision isn't as clear or bright as it used to be.

The IOL being used in your eye surgery is manufactured by a company called Rayner, based in the United Kingdom. Founded in 1910, Rayner supplies eye products to over 80 countries worldwide.

The IOL will be pre-packaged in a sterile and single use injector device. Your surgeon will inject the IOL through a tiny incision that is made in your cornea (the clear front part of your eye), typically only 2.2 mm to 2.8 mm wide. The incision will selfheal after your surgery.

Following removal of the natural crystalline lens, the IOL is designed to provide you with restorative focus and vision. Your post-surgery vision is dependent on the IOL model implanted. The following table contains different IOL types from Rayner and indicates the high-quality and spectacle-free vision that is possible after your eye surgery; however, IOL suitability is based on your eye health, lifestyle and other factors which will have been discussed with your surgeon:

	Near vision Reading, writing, using your smartphone or performing close work	Intermediate vision Computer work, cooking or doing anything at arm's length (40 cm to 100 cm)	Distance vision Daily activities such as cycling, driving, watching TV or attending events	Astigmatism correction¹	Blue light filter²
Monofocal			✓		
Monofocal with blue light filter			✓		✓
Monofocal toric			✓	✓	
Enhanced monofocal		✓	✓		
Trifocal³	✓	✓	✓		
Trifocal toric³	✓	✓	✓	✓	

1. Astigmatism

Astigmatism is an imperfection in the curvature of the cornea resulting in distorted or blurred vision at all distances. The condition is very common and occurs when the shape of the cornea is not spherical or regular. Simply, the curvature of the cornea can be described as the curvature of a rugby ball (or American football) which is varied over the surface instead of having a constant radius like the curve of a spherical football.

If the corneal curvature is irregular, the light entering the eye is not correctly received by the retina, causing blurred and distorted vision, regardless of the distance

at which the objects are located. Astigmatic vision lacks precision, and it is difficult to distinguish clearly between certain shapes and details.

An astigmatism is usually accompanied by myopia (near-sightedness, when close objects look clear but distant objects appear blurred) or hyperopia (far-sightedness, when distance objects look clear, but close objects appear blurred).

The surface of a toric IOL is specifically designed to overcome the effect of your astigmatism and provide you with clearer vision.

2. Blue light filter

All IOLs contain a filter to block harmful ultra-violet (UV) light. Some IOLs also have a filter to block all or some visible blue light. Theoretically, high levels of blue light could damage the back of the eye that controls your central vision (known as the macula).

It has been suggested that blue-light filtering IOLs may help to protect the macula and prevent a common cause of visual loss in older people, called age-related macular degeneration (AMD).



3. Trifocal IOLs

Most IOLs only provide a single focal point (typically for distance vision) which means that spectacles need to be worn for most activities requiring near or intermediate vision.

Rayner's trifocal and trifocal toric lenses are some of the most advanced IOLs available today, using patented optics that give you the opportunity to increase independence from wearing glasses for the majority of everyday activities. These lenses use diffractive step technology made up of 16 rings that split the incoming light in order to provide near, intermediate and

distance vision. The optics transmit 89% of available light to the retina.

Diffractive step technology is designed to provide you with spectacle-free near, intermediate and distance vision; however, potential side effects associated with the implantation of diffractive IOLs are:

- Decrease in contrast
- Halos when driving at night
- Visual disturbances including halos and glares, which decrease with time (neuroadaptation)

Risks and side effects

There are more than **28 million** cataract surgeries performed worldwide each year.

Your **vision.** Your **world.**

Cataract surgery is a common, safe, and effective procedure to restore your vision. However, as with all surgical procedures, there are risks as well as benefits. The outcome of intraocular lens implantation cannot be guaranteed and it is important to be aware of possible effects on your vision after surgery, which your surgeon will discuss with you.

Potential complications of cataract surgery are:

- Secondary glaucoma
- IOL replacement or extraction
- Precipitates
- Reduced vision
- Vitreous herniation
- Excessive intraoperative vitreous loss
- IOL decentration
- Secondary membrane
- Expulsive haemorrhage
- IOL dislocation and subluxation
- Retrolenticular membrane
- Corneal oedema
- Endophthalmitis and panophthalmitis
- Retinal detachment
- Corneal dystrophy
- Haemorrhage
- Iris atrophy
- Pupillary block
- Cystoid macular oedema
- Severe ametropia and aniseikonia
- Iridocyclitis and hyalitis
- Deviation from target refraction
- Fibrin reaction

Additional information

Electromagnetic compatibility

Rayner IOLs are considered safe for magnetic resonance imaging (MRI), and do not pose an increased risk during diagnostic investigation or therapeutic treatment.

Product lifetime

Rayner IOLs are single piece optical devices, manufactured from Rayacryl (hydroxyethyl methacrylate/methyl methacrylate copolymer with UV blocker). A product lifetime of twenty years has been assigned to these devices, corresponding to the shelf-life of the product, typical age of the patient and typical life expectancy.

Post-surgery checks

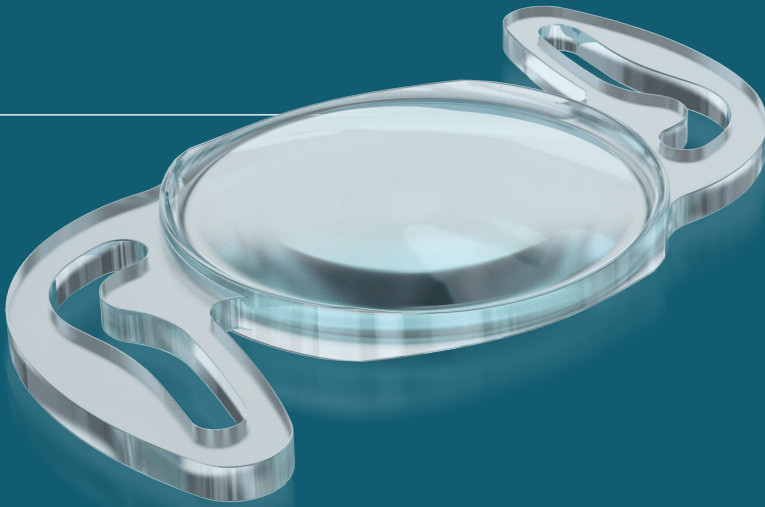
Your surgeon will advise on the frequency of vision checks after your eye surgery, and you may be referred back to your regular optometrist/optician.

What shall I do if I experience a problem related to my IOL?

If you have a serious incident during or after your surgery that occurs in relation to the IOL then it should be immediately reported to Rayner (IOL manufacturer) and to the Therapeutic Goods Administration (Australian Government's regulatory body) using the following contact details:

- Rayner: feedback@rayner.com
- Therapeutic Goods Administration: <https://www.tga.gov.au>





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