

What are Bespoke RGP Lenses?

Bespoke are custom-made Rigid Gas Permeable contact lenses designed to rest on the cornea, holding their shape to create an even optical surface. These are ideal for high prescriptions and a number of eye conditions.

RGP corneal lens wearers experience clear, high quality vision with a safety profile higher than any other contact lens.



Why should I use an RGP corneal Lens?

EYE DISEASE

A variety of eye conditions are best managed with rigid gas permeable (RGP) contact lenses.¹ These include keratoconus, pellucid marginal degeneration, corneal grafts, corneal dystrophies, corneal scarring from injury, and altered eye surfaces following corneal refractive surgery.

One of the most common conditions fitted with rigid lenses is keratoconus. The irregular distortion of the cornea limits the quality of vision possible with spectacles or soft contact lenses.²



Wearing a smooth, rigid contact lens over the cornea allows tears to fill in the space between the rigid lens surface and the corneal irregularity, neutralising most of the corneal distortion.

Neutralising corneal distortion gives wearers better definition and contrast with improved vision and decreased ghosting.² Similar benefits are achieved for the irregular corneal surfaces present in all of the corneal diseases mentioned above.

HIGH PRESCRIPTIONS

Patients with high refractive errors such as astigmatism, myopia (short-sightedness) or hyperopia (long-sightedness) may not always achieve satisfactory vision with spectacles or soft contact lenses.⁴



Rigid lens material can provide greater vision and clarity.

RGP corneal lenses can be a great option for those needing rigid lenses but finding a larger scleral lens difficult to handle, insert and remove.

How do RGP corneal Lenses Work?

RGP corneal lenses are typically smaller than other contact lenses, being only 8.00 to 11.50 mm in diameter. They are designed to 'float' on the tears overlaying the cornea, spreading the pressure across the corneal surface.

Did you know RGPs are the safest contact lenses you can wear?



With each blink, the contact lens is designed to move vertically on the eye and then settle back into position. This movement allows fresh tears to flow in under the lens and nourish the cornea.

RGPs were the first type of lens fitted by optometrists before soft lenses gained popularity.³ Though they can take longer to get used to than soft lenses or large scleral lenses, once the lids and corneal surface adapt, wear is quite comfortable. Most of our rigid corneal lens patients wear their lenses for long periods during the day due to the comfort and excellent vision they provide.

Lens complications, though minimal when instructions are followed, include:

- Mild redness and irritation initially during wear.
- Risk of corneal damage due to ill-fitting or dirty lenses (it is important to maintain proper cleaning and regular consultation).
- Reaction to lens solutions, requiring a change to a different type of solution.³

How are my Lenses Designed?

At your initial appointment, we will take a range of measurements in each eye, including corneal topography, which analyses the front shape of your eye. This data is then imported into our lens simulation software, EyeSpace by Innovatus Technology, to design your lenses.

EyeSpace is used by contact lens practitioners across the world including Australia, USA, New Zealand and South Africa. EyeSpace customises each lens to your prescription and eye shape to a degree of accuracy smaller than one micron. Your optometrist will make changes to this lens until it looks optimal in the simulation before ordering.

What will happen at my appointments?

DELIVERY AND TEACH

If you have never worn contact lenses, it can be helpful to practice some eye touching techniques before your appointment. Wash your hands thoroughly to begin.

- Open the top and bottom eyelids wide with your middle fingers.
- Looking up, gently touch the white of the eye with your index finger.
- Practise inserting lubricating eye drops, holding your eye open.

At your appointment, your optometrist will examine the design and fit of your EyeSpace Bespoke RGP lens on the eye. Our team will then teach you how to insert, remove, clean and care for your lenses.

What will happen at my appointments?

After this appointment, you can begin using your lenses during the day. We often recommend easing into your wear time, starting with two hours the first day. Depending on your level of comfort and vision you can increase your wearing time by one to two hours each day thereafter.

The adaptation process can take anywhere from a few days to a month - this is a typical experience.

ONE WEEK FOLLOW UP VISIT

Most patients will be asked to return for a one to two-week follow-up appointment. At this visit we will check:

- Your insertion and removal technique
- Your vision quality with the lenses
- The fit of the lenses on the eye
- The health of the eye surface

In some individuals, we may decide to make some fine adjustments to the design, with a new warranty lens.

ONGOING FOLLOW UP

Follow up appointments will be scheduled upon completion of the lens fitting. These are vital to the monitoring and success of your contact lenses. Some ocular health complications may be present without any discomfort or vision trouble.

We recommend yearly follow up appointments for contact lens wearers to ensure your lenses are clean, you are seeing well, and your eye health is uncompromised. RGP lenses can last much longer than soft lenses. We recommend that you replace them every one to two years to ensure they work optimally and do not cause any adverse effects. If you are experiencing any discomfort or redness, please contact us to arrange another appointment.

Regular aftercare visits every 12 months are necessary to ensure the health of your eyes remain uncompromised.

Frequently asked questions

• HOW NEW ARE RIGID CORNEAL LENSES?

Rigid lenses were the first contact lenses to be invented. Many of our patients have been happily wearing them for decades. Modern day rigid lenses use advanced lathe technology, breathable lens materials, and updated processes to fit your eye with a customised lens better than ever before.⁵

• ARE THERE AGE RESTRICTIONS FOR RIGID LENSES?

There is no age limit. Children need to be old enough to handle lenses themselves, though many babies born with congenital cataracts need to be fitted with RGPs to ensure their eyes develop correctly.

- CAN THE RIGID CONTACT LENSES DAMAGE MY EYES?

RGPs are the safest contact lenses. Any contact lenses have the potential to cause infection and vision loss. Hygiene, lens care and timely replacement minimises these risks.

Regular reviews are critical as long-term wear of poorly fitting lenses may cause harm to your cornea especially in progressive conditions such as keratoconus where corneal changes can occur over time.

- CAN I SLEEP IN MY RIGID LENSES?

Please remember that your lenses have to be sterilised and cleaned each day to reduce the risk of infection, so nightly wear is usually not recommended.

If you would like to sleep in your rigid lenses, then please advise your optometrist to see if you are eligible for extended wear.

- I AM OVER 45 AND NEED MULTIFOCALS OR READING GLASSES. CAN I STILL WEAR RIGID CORNEAL LENSES?

Absolutely. There are a number of ways to achieve reading and distance vision with rigid contact lenses. Ask your optometrist if these are right for you.

- HOW OFTEN WILL I HAVE TO REPLACE MY RIGID CONTACT LENSES?

We recommend replacing lenses every one to two years, depending on their condition. This is to decrease the chance of eye infection or inflammation and to ensure the optical surface remains smooth and clear.

- WHAT ONGOING COSTS ARE REQUIRED FOR RIGID CONTACT LENS WEAR?

You will need regular solutions and insertion drops. We also recommend a spare set of lenses.

- HOW DO I FIND OUT IF I AM SUITABLE FOR RGP LENSES?

A full eye exam with us is needed, even if you have had a recent eye examination at another optometrist. This is to examine eye health, vision and corneal shape to establish if your eyes are suitable. If you have had a full eye exam with us in the last 12 months, you may just need a corneal topography and a discussion.

¹Contact lens management of keratoconus. 2015 Jul;98(4):299–311.

²Rigid gas-permeable contact lens related life quality in keratoconic patients with different grades of severity. 2015 Mar;98(2):150–4.

³Rabinowitz YS. Keratoconus. Survey of ophthalmology. 1998

⁴Shaughnessy MP, Ellis FJ, Jeffery AR, Szczotka L. Rigid Gas-Permeable Contact Lenses Are a Safe and Effective Means of Treating Refractive Abnormalities in the Pediatric Population. Eye & Contact Lens: Science & Clinical Practice. 2001 Oct 1;27(4):195.

⁵Wang Y, Qian X, Zhang X, Xia W, Zhong L, Sun Z, et al. Plasma surface modification of rigid contact lenses decreases bacterial adhesion. Eye Contact Lens. 2013 Nov;39(6):376–80.