

## ORTHO-K FACT SHEET

### What is Ortho-K?

Ortho-keratology (known as Ortho-K) is a non-surgical procedure that provides you with the freedom of clear vision without contact lenses or spectacles during the day. Ortho-K uses specialised contact lenses that you wear while asleep, which gently alter the shape of the front of your eye (cornea) to correct your prescription, and allow you to see clearly during the day. Ortho-K has been around since the 1960s, but advances in contact lens and corneal measurement technology mean Ortho-K is now suitable and more successful for a wide range of prescriptions.

### How does it work?

Ortho-K lenses are worn while you sleep, and gently mould and re-shape the front cellular layer of the eye (the corneal epithelium). This changes the optic power of your cornea, so that light is correctly focused on the retina to give you clear vision - this is similar to the principle behind laser refractive eye surgery. While the benefits of clear vision can last for several days after Ortho-K wear, it is always reversible. Your cornea will return to its original shape after approximately one week of ceasing Ortho-K lens wear. Ortho-K lenses need to be worn regularly (usually every night, or alternate nights in some cases) to maintain their vision-correcting effect.

### What are the benefits?

Ortho-K allows you to see clearly, without surgery, and without the hassle of wearing spectacles or contact lenses during the day. Ortho-K is an ideal vision correction option for active people who tire of spectacles fogging up or slipping down their nose, or for occupations or hobbies where spectacles or contact lenses are impractical. Ortho-K is a great alternative for people who enjoy swimming, water sports, or other outdoor activities where soft contact lenses are not an ideal option. Ortho-K is also a good option for people who experience discomfort and dry eye with soft contact lens wear during the day. Ortho-k lenses are usually replaced every 12-24 months, so they are less wasteful and more environmentally-friendly than soft disposable contact lenses.

Multiple clinical trials have shown that the use of Ortho-K in myopic children can significantly reduce the progression of myopia in school-aged children and teenagers. Of all the methods that have been studied, Ortho-K is one of the most effective at slowing myopia progression. The clinical trials have reported slowing myopia by 50% to 100%. Wearing Ortho-K lenses can help stabilise your child's short-sightedness and potentially prevent the eyes from getting worse.

### Who can have Orthokeratology?

Most people with mild to moderate myopia (with or without mild astigmatism) are good candidates for Ortho-K. A detailed assessment is necessary to determine the suitability of individual patients. Teenagers or children who have progressing myopia are usually good candidates for Ortho-K. Children and young adults who want to be glasses-free but are unable to have LASIK are often good candidates for Ortho-K. Unfortunately, Ortho-K cannot be used as reliably to correct patients who are hyperopic (longsighted) or to correct reading problems due to presbyopia. If you are able to care for and clean your Ortho-K lenses, return for follow-up appointments as required, and are motivated to see well without spectacles, you are on the right track.

### Does Ortho-K have any advantages over Laser Refractive Surgery?

Ortho-K is a reversible alternative to refractive laser surgery. It is available for children, teens and adults whose vision is still changing and also does not compromise the structural strength of your cornea. One of the biggest benefits is Ortho-K has been shown to slow down the progression of myopia, and in some cases even stop it.

## What does treatment with Ortho-K involve?

Firstly, one of our optometrists will carry out a comprehensive initial examination to assess vision and the condition & health of the eyes, to determine if your eyes are suitable for ortho-k. Also at this visit precise measurements of your corneas are performed using a special computerised corneal mapping system (corneal topography). Assuming that your prescription and corneal shape are suitable, the next step is the fitting. A pair of custom made lenses will be ordered for you. Once these lenses arrive, we will go through how to insert, remove, and care for your Ortho-K lenses. The technique is slightly different to that of soft contact lenses, but we will cover that during your appointment with us.

The lenses are then worn overnight. Your vision isn't expected to be perfect after the very first night; in most people 70% of the reshaping is obtained during the first night and 100% within 10 days. It is possible that you may need to wear your glasses or some temporary soft disposable contact lenses for the first few days until you reach the desired prescription. You will need to return at regular intervals (1 week, 1 month and 3 months) in order for the optometrist to assess the lenses and ensure that the fit is still optimal. Regular ongoing review visits (6 monthly) are still necessary once the correct lens has been fitted, to ensure your corneas remain in good health and the best performance of your lenses. It is important that you come for these regular check-ups even if you have no concerns.

## Is Ortho-K safe?

Ortho-K has been prescribed by contact lens specialists for many years and many thousands of people have been successfully treated. The rigid lenses that are used in Ortho-K are made from materials that allow sufficient oxygen permeability to make overnight wear safe.

Risks involved in this treatment are similar to those of regular contact lens wear, which includes eye infections and allergic responses to the contact lens or cleaning solutions. As with any type of contact lens wear, regular checkups and clean lenses on your eye minimise the risk of problems. If your optometrist's instructions are followed, the risk of infection or adverse effects is very low. Parental supervision is recommended for young children in handling their lenses to lower the risk of adverse effects.

## What does Orthokeratology cost?

The orthokeratology treatment program costs \$1600-\$1800 (depending on if astigmatism correction is required). This includes the first pair of lenses, all fitting and check-up visits for the first six months, and any lens modifications or remakes required during the fitting process. Routine checks are required every six months and lens replacement due to wear and tear every 12-24 months at \$900-\$1050/pair. This works out to approximately \$4/day for the freedom of clear vision without spectacle or daytime contact lens wear. If you're in a private health fund with extras cover, you should be able to claim an annual rebate for the rigid gas permeable contact lenses used in orthokeratology.

## Can any optometrist provide Ortho-K?

The process of fitting Ortho-K requires specialised equipment and training. As a result, not all optometrists are able to offer Ortho-K to their patients. At Options Eyecare, we strive to work closely with our colleagues in order to try and provide this service to all patients who need it. Contact us anytime so we can answer any questions that you may have.