



ORTHO-K

Correct your vision while you sleep.

What is Ortho-K?

Ortho-K is the reshaping of your cornea by small contact lenses, which are worn while you sleep, to correct your vision.

The lenses are removed after waking up, and you will see clearly without the help of glasses or contact lenses for the rest of the day. The freedom is quite something, and a lot of fun.

The lenses are worn most nights to maintain the best vision, but taking the occasional night off is also an option.

Ortho-K is prescribed to correct short-sightedness (myopia), but can also correct astigmatism and long-sightedness (hyperopia), and, in some cases, the need for reading glasses in middle-age (presbyopia).

How soon should I be able to see clearly?

After just 20 minutes of wearing the lenses you should see an improvement of a line or two on the chart, and most people with low myopia can see the second last line on the chart after the first night of wearing them. Full correction of low myopia is usually achieved within a week.

Am I Suitable?

Most people with mild to moderate myopia (with or without astigmatism) are the best candidates for Ortho-K. Your optometrist will be able to tell you if you're suitable after doing a few extra tests, like corneal topography which maps the shape of your corneas.

Ortho-K is a great option for children and young adults who do not want to wear spectacles, are poor candidates for refractive surgery, or just do not want to take the risk of refractive surgery. If you wear contact lenses and participate in contact sports or work in dusty environments, OrthoK might just be the answer you've been looking for.

Myopia Control

The single most important reason why our principal optometrist, James Simpson, introduced Ortho-K into our practice was myopia control. Myopia that is higher than -5.00 D can lead to serious complications later in life such as retinal detachment, macular disease, glaucoma and cataracts.

Various methods have been tried to curb the progressive nature of myopia but none have been as popular as Ortho-K so it makes good sense for us to offer it to our patients. Low-dose atropine penalization is slightly more effective than Ortho-K for myopia control, but the need to still wear glasses or contact lenses during the day deters many patients from using it. Soft multi-focal contact lenses are another good option for myopia control, and we're happy to discuss any of these options with you if you'd like more information.

Not only does Ortho-K offer the chance to see without glasses or contact lenses but it also offers the chance to avoid the sight-threatening risks mentioned above – there is a calculator on the My Kids Vision website for you to see what is your child's risk of developing high myopia.

<https://mykidsvision.org/>

If you'd like to compare what's likely to happen to your eye sight if you continue to wear glasses versus changing to Ortho-K lenses, go to the Brien Holden Institute and use their calculator:

<https://calculator.brienholdenvision.org/>

Keep in mind, we're aiming to keep the myopia under -5.00D.

The most aggressive myopic progression is usually in children under the age of 12, and when one sees how much myopia can be avoided by using Ortho-K, it's clear to see why children as young as 6 years old are wearing Ortho-K lenses. And should they choose to stop Ortho-K when they are older, they most often find their myopia is the same or only slightly more than what it was when they started Ortho-K. There are reputable studies to show the myopic progression would have been significantly more had they not worn Ortho-K lenses.

There is a list of articles and websites later in this brochure if you're interested in learning more about the research into the efficacy of Ortho-K and the science behind it.

So what's the next step?

Your first step is to book an appointment with us for a regular eye exam – we'd like to examine your eyes to establish whether or not you are suitable for Ortho-K, and this will serve as a baseline before we commence treatment.

We shall then advise you if you are suitable for Ortho-K and advise you of the cost to go ahead. Complex cases are more time consuming, and so cost a little more than standard cases.

It takes about 10 days to make your lenses – once we have them, we'll teach you how to insert, remove and care for them. After that, you'll be able to take them home, returning for a series of reviews that we do to ensure your eyes remain healthy and the lenses are giving you the sort of vision we expect.

Ortho-K Fee Schedule

A package fee of \$2350 (standard), \$2700 (intermediate) or \$3250 (complex) covers the initial assessment, first pair of lenses and all aftercare visits involved in the first 6 months of Ortho-K.

As a minimum this includes:

- ✓ All examinations specifically for Ortho-K
- ✓ All diagnostic fitting visits
- ✓ Instruction on how to use and care for the lenses
- ✓ Aftercare examination after the first night of wear
- ✓ Routine aftercare visits at 1 week, 1 month, 3, and 6 months
- ✓ Lens modifications as needed during the fitting process
- ✓ One pair of custom-made lenses for overnight wear

The attached 'Ortho-K Lens Program' information sheet has more detail on:

- ✓ Costs for damaged or lost lenses
 - ✓ Refunds if you can't adapt to the lenses

Caring for your Ortho-K lenses

To keep your eyes healthy and to prolong the life of your lenses, we recommend you follow these instructions:

Each time you remove a lens from your eye:

- ✓ Wash your hands thoroughly with soap and water.
- ✓ Dry your hands on a clean, lint-free towel or paper towel.
- ✓ Move to a room other than the bathroom.
- ✓ Remove the right lens with a rigid contact lens removal tool by pressing the tool against the lower part of the lens and hinging upwards in a slow but steady arc.
- ✓ DO NOT RUB the lens between your fingers before storing them in the case
- ✓ Place the lens in its holder in the case – left lens in the left holder; right in the right.
- ✓ Repeat the above for the left lens.
- ✓ Fill the case to the marked line with the AO Sept solution and wait 6 hours for the peroxide to neutralise.

Each time you put a lens into your eye:

- ✓ Wash your hands thoroughly with soap and water.
- ✓ Dry your hands on a clean, lint-free towel and paper towel.
- ✓ Move to a room other than the bathroom.
- ✓ Remove the right lens from its case with your fingers.
- ✓ Rinse the lens with unpreserved saline if there is any residue on it.
- ✓ Fill the lens with unpreserved ocular lubricant, being careful not to get any air bubbles in the lubricant before you insert the lens as air bubbles will dent your cornea and distort your vision for at least a day, if not longer.
- ✓ Repeat for the left lens.
- ✓ Tip out the remaining cleaning solution from the case.
- ✓ Dry the case with paper towel.
- ✓ Store the case in a clean, dry place.

To watch insertion, removal and care go to: <https://youtu.be/YgNS5aE9pAo>



Backup glasses

It is important to have at least one pair of low-power glasses to use in situations where you / your child is unable to wear the orthok lenses for a few days. Examples of this include: broken or lost orthok lenses; eye irritation or conjunctivitis; travelling or going on school camps.

We encourage you to keep your old glasses, which could be useful as backups if the prescription is still suitable.

We have a range of low cost spectacles that are discounted for our orthok patients. Your health insurance might cover the cost of a pair each year, depending on your cover.

Intensive protein cleaning

Over time, your lenses will need an intensive clean to remove the build-up of protein on the surface. This is usually done once a fortnight or month, depending on how rapidly the protein builds up, and you'll be advised on this by your optometrist.

If you're interested, here are some websites and articles on myopia and Ortho-K:

- A free online tool to calculate the risk of developing progressive myopia.
<https://mykidsvision.org/>
- Myopia Profile: a website full of resources, FAQs, latest research papers - for myopes and their parents. <https://www.myopiaprofile.com/>
- Brien Holden Vision Institute: <https://calculator.brienholdenvision.org/> □ Three years' experience of myopia control with contact lenses in Berne.
- <https://www.myopiaprofile.com/three-years-experience-myopia-control-contact-lenses-berne/>
- 'The Case for Myopia Control Now' - by a US professor of ophthalmology urging action to slow down myopia.
<https://www.visionexcellence.com.au/the-case-for-myopia-control-now/>
- 'All About Vision' – a US online publication with independent consumer information on all eye health and vision correction topics. <https://www.allaboutvision.com/contacts/orthok.htm>
- Overnight orthokeratology is comparable with atropine in controlling myopia'
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3994267/>
- Orthokeratology Society of Oceania (OSO) supports the professional development, education and communication amongst Ortho-K practitioners in Australasia.
- International Academy of Orthokeratology (IAO) - the global body for scientific research and training in orthokeratology
- European Academy of Orthokeratology - promotes orthokeratology through science and education in Europe
- Orthokeratology Academy of America - promotes orthokeratology through science and education in America



Ortho-K Lens Program

The process for us to fit you with Ortho-K lenses is quite complex so the aim of this document is to help clarify what you can expect from us, and what we expect of you, when you sign up for the program.

When compared to regular soft contact lenses, the initial investigations for Ortho-K take longer and require more equipment, the fitting process requires more time, and you'll need to return for more reviews once you start wearing Ortho-K lenses. We need to keep in mind that there is a short warranty period in which we might make changes to your lenses at no extra cost. Changes after that will incur extra costs.

What you'll get:

- All consultations related to Ortho-K lenses within the first 6 months. This includes analysing your eyes, designing the lenses, teaching you how to handle and care for the lenses, and the follow-up reviews.
- Technology costs: ongoing corneal topography, anterior biomicroscopy photography and anterior optical coherence tomography measurements.
- Contact lens solution kit: A Peroxide Starter Pack, unpreserved lubricant and a suction lens remover.

Our fees:

The fees for all the appointments needed to assess your eyes, design the Ortho-K lenses and monitor your progress for 6 months are combined into one fitting fee. We offer a range of packages to cover different levels of complexity of prescription and eye parameters – your level of complexity will be known after your initial consultation, and a quote will be given to you before you agree to go ahead.

There are 4 packages:

Depending on your starting prescription and the shape of your cornea, the complexity of the fitting process, and the number of appointments vary. The cost of your lenses also depends on the complexity of the bespoke design.

- Standard Ortho-K: \$2350 (\$1200 consult fees and \$1150 for 2x Ortho-K lenses)
- Intermediate Ortho-K: \$2700 (\$1350 consult fees and \$1350 for 2x Ortho-K lenses)
- Complex Ortho-K: \$3250 (\$1900 consult fees and \$1350 for 2x complex Ortho-K lenses)
- Single Eye Ortho-K: \$1525/1825/2200/ (\$950/1150/1525 consult fees and \$575/675/675 respectively for a standard/intermediate/complex Ortho-K lens)

An intermediate case usually involves one or more of the following:

- myopia between -4.50 and -5.75DS or corneal astigmatism between 1.25 and -2.00DC

A complex case usually involves one or more of the following:

- Internal astigmatism over 1.00DC
- hyperopia, post-refractive surgery and/or multifocal correction

If you were a previous orthok wearer requiring a refit, you will not be charged the full package fee.

Damage to or Loss of a Lens

Ortho-K lenses are reasonably small and delicate, and can be lost or damaged if mishandled. We strongly recommend you get at least a spare lens for your dominant eye to tide you over for the 2 weeks needed while a new lens is being made for you. These lenses cost 65% of the regular price if ordered within 3 months of your first payment or 80% of the regular price if ordered later on.

Payment

A minimum deposit of 50% is required to start the fitting process. The remainder of the package fee must be paid in full before you take the lenses home, and if you cannot adapt to wearing the lenses, or the lenses don't improve your vision to the level we expect (your optometrist will show you this during the fitting process), you'll be refunded for the unused portion of the consult fees and 50% of the lenses in the same way as you paid.

Refitting

If your prescription or eye shape changes enough in the future to warrant a change in the prescription of your lenses, the fee is 100% of a complex or standard lens, depending on what you need. If changes to your eye shape requires a new lens design, there's an additional re-fitting fee of 75% of the original consult fee to cover the design work of your lenses and any consultation time related to Ortho-K lenses within a 6 month period.

If you have any questions, please do not hesitate to ask us.

If you would like to join our Ortho-K Lens Program, please read and sign the agreement and consent on the page below.

Simpson Optometry

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Ortho-K Lens Program Agreement and Consent

The following consent information should be read in conjunction with the following 3 documents:

- Ortho-K lenses brochure - an overview of Ortho-K, including 'Myopia Control' and 'Am I suitable?'
- Caring for your Ortho-K Lenses – cleaning and handling instructions
- Ortho-K Lens Program – an Information sheet on fees, what you can expect from us, etc.

Please tick the box next to each statement to show that you agree.

- I have completely read the 3 Ortho-K Lens documents listed above.
- I understand and agree to the outline, terms and expectations of Simpson Optometry's Ortho-K Lens Program.
- I have been informed of my responsibilities as a patient using Ortho-K lenses.
- I understand the importance of following the instructions and advice from my optometrist.
- I understand that after the completion of my Ortho-K lens fitting, I still need to see my optometrist every 6 months for reviews to ensure my eyes are still healthy and the lenses are working correctly.
- I understand that during the early stages of the treatment my vision might not be perfect and I might require supplementary glasses or soft contact lenses to see clearly.
- I understand that I have to continue to wear my orthokeratology lenses each night for 8 hours for the correction of my vision to be most effective.
- I understand that even if I follow the instructions of my optometrist in regards to contact lens hygiene and wearing instructions, there is still some risk of adverse eye health events, including corneal infections that in extreme cases might lead to vision loss.
- I understand the current policy on the Ortho-K Lens Program fees and lens replacement.
- I recognise that the cost of lenses might change in the future.
- I understand that Ortho-K lenses have their limitations and the quality of vision they provide might be limited by what is possible given the condition of my eye, as well as the available lens designs and technology.
- I understand I am not entitled to a full refund of the fees paid if my Ortho-K lens result is unsatisfactory but am entitled to any unused portion of the package fee and 50% of the cost of the lenses, which will be given to me in the form of a credit on my account at Simpson Optometry.

Please ensure you have ticked all the boxes before signing below. If you have any questions or you require more information before signing, please ask us in person, via phone or email.

Name: _____

Optometrist: _____

Signed: _____

Signed: _____

Date: _____

Date: _____