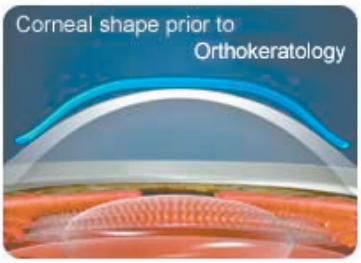

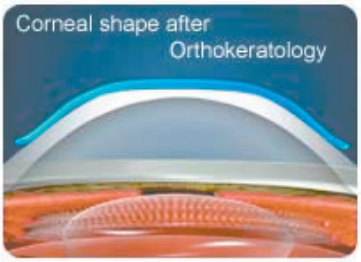

Children and adults can be treated with Ortho-K because the principle of flattening the cornea is effective for both. Myopia control is used to slow or stop the increase in axial length of the eye that occurs in growing children who are becoming more nearsighted each year. This may result in a lower prescription, so the child won't have to wear the thick lenses he might otherwise require by the time he/she is a teenager.

Click here to see a diagram of the duration of change with Ortho-K lenses

Ortho-K (or Orthokeratology)

Common Questions

1. How do Ortho-K lenses work?

The lenses are designed to progressively reshape the central surface of the cornea, similar to the effects of lasers in reversing nearsightedness. However, unlike laser surgery, Ortho-K is temporary and reversible.

2. Are Ortho-K lenses uncomfortable to wear?

Overnight wearing of shaping lenses is surprisingly comfortable. Most patients are unaware of their presence with a very short time after insertion. The Ortho-K lenses are made large in diameter and worn during sleep making the normal adaption period very short.

3. Will I have to wear glasses or contacts?

Once the desired myopic reduction is obtained, the lenses act as retainers to maintain that level. Regular contact lenses and glasses are not needed, even for reading. Ortho-K is one of the best ways to correct for bifocals (reading prescription). During the initial treatment period, if unaided vision does not last a full day, soft contact lenses will be given to maintain normal vision for a short period of time.

4. Once the treatment phase is complete, how often do I have to wear the Ortho-K lenses?

Most people need to wear the Ortho-K lenses each night in order to enjoy good, unaided vision during the entire day. Patients with lesser degrees of myopia may find that wearing them every other night is satisfactory. This would be determined on an individual basis by our practitioners at Sanger Eye Clinic.

5. How much does Ortho-K cost?

The cost is dependant on each individual patient and their prescription. Our range of fees can be between $1,100 to $1,500 depending on patient. This is based on the length of time needed for treatment and the number of lenses that may be needed.

History

Orthokeratology or Ortho-K has been employed since the early 1960's in one form or another. George Jessen first attempted to deliberately change refraction myopic error using rigid contact lenses calling it "Orthofocus".

Much of the early work in Ortho came from the myopia control studies in 1956. These studies showed that 1000 teenagers wearing PMMA rigid lenses had there vision improve by 1.50 to 2.5 diopters. These teenagers also had no change in their myopia in 5 years. Practitioners also found that corneal curvatures had changed, refractive errors had decreased and unaided visual activities had improved in myopic patients wearing rigid contact lenses.

For more than two decades, Orthokeratology did not gain widespread acceptance, partly due to resistance from the scientific community who maintained altering the cornea was not safe. As well, the lack of trained professional fitters hindered the growth of practitioners using Ortho-K as a vision correction method..

It was the introduction of the second generation of Orthokeratology lenses that addressed all the doubts of the scientific community. Lenses were patented with the reverse curve configurations made specifically for Ortho-K. Lenses with three distinct zones produced a more controlled and profound flattening of the cornea. Use of this design also shorten the time to achieve myopic reduction.

Approximately 80 to 90% of the patients treated with modern Ortho-K achieve their desired myopia reduction with only one pair of lenses, compared to the old style that sometimes took up to 8 pairs of lenses. Ortho-K has also been discovered to cause less eye infection that traditional contact lenses and disposable contact lenses.