Is it a new concept?

Reshaping the cornea with contact lenses to improve vision, otherwise known as Ortho-K, was first introduced to contact lens practitioners by George Jessen in 1962. The initial flurry into orthokeratology was hindered by poor technology and understanding of the criteria needed to successfully and predictably correct myopia.

With these changes, over about 50 years, there has been an upsurge in interest in the technique among contact lens specialists, researchers and academics that has resulted in an exponential increase in the publications on this technique and more funding for research from governments and industry bodies.

Are there any side effects?

The biggest side effect of controlling myopia with Ortho-K lenses is actually a benefit, namely there are no lenses to be worn during the day during which time vision remains clear.

You might experience glare and halos that will be reduced with time, but may never completely go away. As with LASIK, patients with large pupils are especially susceptible to this.

The greatest potential adverse risk for any contact lens patient is infection. Patient’s compliance is an utmost importance. If you properly care for your eyes as instructed, the risk of infection or adverse effects are very low. Parents are recommended to supervise young children in the insertion, removal and care of their lenses.

Why Ortho-K?

Increasing myopia is becoming an epidemic. In some Asian countries, up to 80% of adults have Myopia. Recent findings on the ability of Ortho-K lens wear to slow the progression of myopia means that the lens modality could become a major technique for the control of myopic progression.

Further information about Orthokeratology can be found in the following websites:
www.okglobal.org
www.ortho-k.net

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What is ORTHOKERATOLOGY (Ortho-K)

Ortho-K (short for orthokeratology) is a nonsurgical procedure using specially designed contact lenses to gently reshape the curvature of the eye to improve vision.

Some benefits of Ortho-K are:

- Vision improvement while you sleep
- Non-surgical/painless
- Reversible/low risk
- Children who, with their parents, wish to significantly slow or stop their progression of myopia. There is continuing research on the control of myopia (nearsightedness) in children by the use of Ortho-K and results are very promising.

Progression of Myopia in children is believed to be caused by the need of the eyeball to elongate due to the unfocused/blurred image casted on the peripheral retina when using eyeglasses or regular contact lenses. The Ortho-K remodeling lens flattens the cornea, thereby, theoretically allows the rays of light to cast a clear image on both central and peripheral retina, resulting in a significant control over further increase of nearsightedness.

Who is suitable for this treatment?

Orthokeratology is perfectly suited for anybody who wants clear natural vision all day, every day but have the following conditions:

- Mild to moderate myopia (-0.75 to –5.00D)
- Mild hyperopes, up to +3.00D
- Suitable Presbyopes – monovision corrections
- Active individuals or those with occupational demands not suited to standard RGP or disposable contact lenses.
- Lose their contacts easily, or suffer from allergies from some contact lenses.
- Have considered refractive surgery because of the freedom it provides, but are worried about the risks
- Have difficulty with dry eyes from air conditioning, computer use or dusty environments
- Find soft contact lenses do not fulfill the comfort demands their lifestyle places on their eyes

How does Orthokeratology work?

Orthokeratology lenses are customized contact lens molds. They are worn each night and removed each morning. The molding that occurs overnight allows for clear vision at all distances during the day without glasses or daytime contact lenses. The lenses are comfortable and do not interfere with sleep. They last approximately a year and are worn as long as myopia progression is considered a risk or until freedom from daytime lens correction is no longer desired.

What results can you expect from Ortho-K?

Eye care practitioners usually aim for 20/20 vision after Ortho-K and corneal refractive therapy, but 20/40 vision (the legal minimum for driving in most of the United States) typically is considered acceptable.

Once your eyes reach the desired prescription, you will need to wear lenses when you sleep or during part of the day to maintain your prescription. Discontinuing lens wear altogether allows your corneas to gradually regress to their original shape or close to it.