



Canadian Société  
Ophthalmological canadienne  
Society d'ophtalmologie

EYE PHYSICIANS | MÉDECINS ET CHIRURGIENS  
AND SURGEONS | OPHTALMOLOGISTES  
OF CANADA | DU CANADA

## POLICY STATEMENT

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### Orthokeratology and Myopia\*

The Canadian Ophthalmological Society does not endorse the use of Orthokeratology (orthoK) in the attempt to reduce myopia as there are significant risks to the health of eyes and vision. The use of rigid gas-permeable contact lenses will **not** stop myopia from progressing and any temporary beneficial effect is reversed if the contact lens use is discontinued. We feel that this benefit does not justify the risks.

OrthoK is defined as the **transient** reduction in myopia through the application of a series of increasingly flat, reverse geometry, rigid gas-permeable contact lenses that temporarily reduce the central curvature of the cornea. These contact lenses are typically worn overnight; allowing the patient to achieve improved uncorrected visual acuity during the day. OrthoK was initially introduced in the 1970s, but rapidly fell out of favour. However, it is regaining popularity because of the availability of modern high oxygen permeability (DK) lenses and aggressive marketing.

The October 2005 issue of the *Cornea* reports microbial keratitis associated with the use of overnight orthoK with rigid gas-permeable contact lenses from five independent centres. Several features of these reports are remarkable:

1. a majority of reported infections are central and severe, caused by aggressive organisms such as Gram- negative rods or acanthamoeba;
2. majority occurred in children or adolescents; and
3. infections were associated with multiple brands /types of rigid gas-permeable contact lenses, including those with high oxygen permeability and reverse geometry

design.

\*This statement was prepared by the Cornea, External Disease and Refractive Disease Society and approved by the COS Board of Directors, 18 February, 2007.