

## Information From Your Eye M.D.

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### EXTENDED WEAR CONTACT LENSES

#### Background

Extended wear contact lenses gained popularity during the 1970s and 80s until contact lens wearers began experiencing problems (corneal infections). Corneal infections or corneal ulcers are serious, sight-threatening complications associated with sleeping in contact lenses. Although these complications were not a significant problem in initial extended-wear contact lens studies, corneal infections were later found to be at least 10 times more frequent in patients who slept in their lenses, rather than removing them each night. Popularity for extended wear-contact lenses decreased by the mid-1980s and most Eye M.D.s stopped recommending them because of their risks.

However, surveys have continued to show consumers are interested in wearing safe extended-wear lenses, leading to the development of new materials that allow for increased oxygen permeability and tear film movement, with less protein deposits which can reduce the risk of dryness, and ultimately, more serious complications such as corneal infections or ulcers.

#### The Study and Results

In the one-year study, 178 patients from the University of Texas Southwestern Medical Center in Dallas were fitted with different contact lenses made from lens material that transmitted varying degrees of oxygen. Results showed lenses made of a new type of material, a "hyper-oxygen transmissible" contact lens, caused less bacterial binding (a main cause of complications associated with the lack of oxygen to the cornea). Daily-wear lenses, made with the same type of material yielded similar results according to a study published in the July 2001 issue of *Ophthalmology*. Both studies were supported in part by the National Institutes of Health.

In an accompanying editorial, Peter C. Donshik, MD, former president of the Contact Lens Association of Ophthalmologists, wrote extended-wear contact lenses have a tremendous popular appeal for both patients and doctors. "This appeal is the simplification of contact lens wear - elimination of daily insertion and removal, elimination of daily cleaning and disinfecting of the contact lenses. They provide the ability to correct vision 24 hours a day without the need for glasses or refractive surgery."

Contact lenses made from materials that transmit high amounts of oxygen can be worn safely for up to 30 days continuously. Contact lens manufactures Ciba Vision and Bausch & Lomb have recently received FDA approval on their 30-day extended wear lenses.

## **What Should I Do?**

Contact lenses are medical devices. The approval of the 30-day contact lens represents a significant advance in contact lens technology. Nevertheless, this lens is not suitable for all patients.

Current and potential contact lens wearers should contact their Eye M.D. to be fitted with the appropriate category of lenses and obtain proper instructions on their use.

Regular eye exams are essential for safe and healthy contact lens wear. Your eye care professional can ensure contact lenses are worn correctly and handled appropriately to avoid corneal infections.

## **Where Can I Get More Information?**

Your Eye M.D. is the best source of information on contact lenses, as well as eye health and safety.

If you would like more information on contact lenses, please visit the American Academy of Ophthalmology's public information Web site at [www.medem.com](http://www.medem.com).

Approved by: The Eye Health and Public Information Task Force  
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