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Longer discontinuance of rigid contact lens use before **LASIK** surgery recommended

**BODY:**

A study published in the *Journal of Cataract and Refractive Surgery* suggests that rigid contact lens users should stop using contacts and switch to glasses 3 to 6 weeks before having pre-**LASIK** examinations, rather than the traditional 3 weeks.

The study found that only 56% of eyes (31 of 55) achieved a stable refraction after 3 weeks, but 78% were stable after 6 weeks, said study author Patricia Tsai, MD, a fellow at the Massachusetts Eye and Ear Infirmary, Boston, Massachusetts. The study was performed at the University of California San Francisco School of Medicine Department of Ophthalmology.

Rigid contact lenses can cause a warping of the cornea, the clear outer part of the eye that is operated upon during **LASIK**, the popular laser-based vision correction procedure. That warping can result in improper calculations for laser treatments.

The problem is routinely managed by having patients stop using their rigid contacts several weeks before evaluation to allow the cornea to return to its natural shape. Once achieved, a stable refraction (stable set of measurements of the eye's optical power) can be obtained. A stable refraction is needed to guide the laser used in **LASIK** to make the most accurate vision correction, Tsai said.

Based on the study, Tsai recommends contact lens users call their ophthalmologists well before scheduling a pre-**LASIK** eye examination to learn how long they should discontinue contact lens use.

In the study, rigid gas-permeable (RGP) contact lens users were instructed to discontinue wearing lenses 3 weeks before the initial examination. Patients were examined at 3-week intervals until a stable refraction was achieved. Of 55 eyes of 28 patients, 31 eyes achieved refractive stability by the second visit (early group, 3 weeks after discontinuing contact lens use). But 24 eyes required more than 2 visits, (late group, at least 6 weeks after discontinuance) to achieve stability.

No significant between-group differences were observed in age, or gender of patients, or anatomical or optical characteristics of their eyes. However, the study suggests that the number of years a patient has been wearing rigid contact lenses may influence the time it will take for a stable refraction to be achieved. The study also noted that the corneal changes are most pronounced with rigid gas-permeable contact lenses, although they can occur with soft contact lenses as well.

The study is entitled "Predicting time to refractive stability after discontinuation of rigid contact lens wear before **refractive surgery**."

While the percentage of RGP contact lens users is a relatively small percentage of all contact lens users, the study's findings support an important consideration in optimizing **LASIK** outcomes and enhancing patient satisfaction, said Samuel Masket, MD, chairman of the Eye Surgery Education Council, the public education arm of the American Society of Cataract and **Refractive Surgery** Foundation.

The American Society of Cataract and **Refractive Surgery** is an international educational and scientific organization whose 9,000 member ophthalmologists specialize in surgical procedures associated with the front part (anterior segment) of the eye.

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