

# IS IT RISKIER TO WEAR CONTACT LENSES OR HAVE REFRACTIVE SURGERY? THE ANSWER MAY SURPRISE YOU...

By Dr Mark Eltis, O.D.

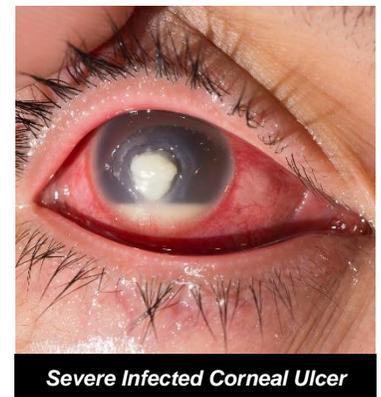
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Most people assume refractive surgery is riskier than wearing contact lenses. The reality is more nuanced and complex. **A non-compliant soft contact lens wearer is actually better off having Lasik surgery than continuing to wear contacts.** The riskiest activities are swimming in the lenses (or using expired solution) and sleeping in the lenses. A corneal ulcer (contact lens related microbial keratitis) is a complication resulting from overnight contact lens wear. This can result in permanent vision loss. Acanthamoeba keratitis is perhaps an even more devastating complication caused by swimming in the lenses or using expired solution and can also result in blindness preceded by extreme pain. The patient's complaints are generally disproportionate to the clinical signs. Limited treatment options lead to poor visual outcomes and can result in the need for corneal transplants. RGP wearers on the other hand tend to be at lower risk than soft contact lens wearers and even Lasik patients for serious complications.

It is not advisable for patients to sleep in their contact lenses regardless of FDA approval. Even 25 years ago there was "approval" for sleeping in certain lenses (up to a week) but that was due to a lack of information. Similarly, silicone hydrogel lenses received approval for 30-day continuous wear because of their ability to allow physiological levels of oxygen to reach the eye. We now know that oxygen is not the only variable in the pathogenesis of corneal ulcers and therefore there is no soft contact lens which is truly safe for extended wear. Moreover, lenses that are worn overnight have the highest risk of all contact lenses and surpass the risk of vision loss associated with refractive surgery.

For many patients, long-term contact lens wear can be riskier than refractive surgery. Military studies have found that while contact lenses resolve some of the challenges glasses pose under battle conditions, they can create other serious problems. Maintaining proper hygiene on the battlefield is a concern. In a Japanese study a majority of soldiers did not change their contact lenses at all during training exercises. Hundreds of US soldiers have been treated for corneal ulcers despite a policy forbidding the use of contact lenses in the military. On the other hand, Lasik surgery is now approved for all branches of the US military.



Refractive procedures can achieve better vision than contacts for patients with complex prescriptions such as high astigmatism (eliminating lens rotation issues). Although dryness and nighttime visual disturbances have been noted following refractive surgery, a multi-year survey comparing visual satisfaction of LASIK and contact lenses found that patients believed their night driving had improved after having surgery. There was no significant increase in dryness post-Lasik. The patients also registered higher levels of satisfaction than their counterparts who had remained in contacts.

The incidence of serious complications such as corneal ulcers decreased substantially in those who had refractive surgery as opposed to those who remained in contacts. Studies indicate patient's who had refractive surgery globally present a better quality of life than those wearing glasses or contact lenses. Ultimately, each patient's situation is unique and a thorough case history and clinical evaluation is critical in determining the ideal course of action.

## About Dr Mark Eltis

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With over fifteen years of experience, Dr. Mark Eltis has practiced Optometry in New York, California and Toronto. He is a graduate of the University of Waterloo School of Optometry and continues to be a lecturer there. He is also a Fellow of the American Academy of Optometry and a Diplomate of the American Board of Optometry. Dr. Eltis has served as an examiner for national licensing assessment in both Canada and the United States (NBEO, CSAO and CACO). He has presented and published internationally and has been sought as an expert on optometric issues for national television and print.

In 2013, Dr. Eltis was honored as a member of the Optometric Glaucoma Society (OGS) having “demonstrated excellence in the care of patients with glaucoma through professional education and scientific investigation.” Dr. Eltis is a reviewer for over a dozen publications including Journal of Glaucoma and Canadian Journal of Optometry. In 2017, Dr. Eltis was recognized for his “outstanding contribution in reviewing” by the editors of Journal of Optometry and Elsevier.

Dr. Eltis has been a consultant for academic institutions overseas, contact lens/pharmaceutical companies, law firms, and a subject matter expert for competency evaluations. In 2018, Dr. Eltis was appointed as a member of the College of Optometrists of Ontario's Discipline Committee (adjudicating allegations of professional misconduct at formal hearings). He also recently completed the full sequence of courses at University of California at Berkeley to achieve California Glaucoma Certification TLG (the highest level of licensure in the state). Most recently he has been writing a monthly column for Primary Care Optometry News to share his perspective on the latest developments in Glaucoma research.

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