

LASIK Eye Surgery

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BME 281 First Presentation, October 17, 2012 <kmatt06@my.uri.edu>

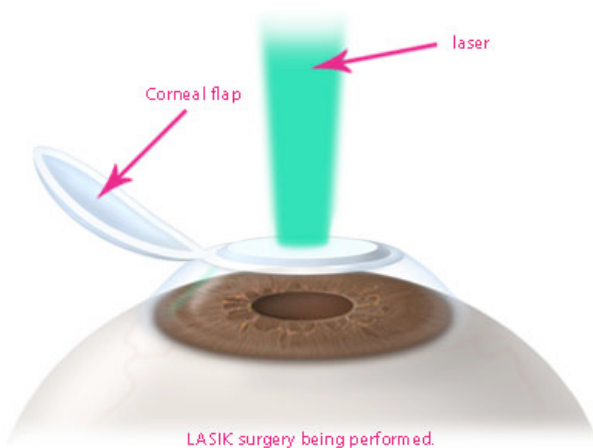
Abstract—LASIK eye surgery has been used since 1991 to correct refractive error in the cornea in able to improve vision for those with myopia, hyperopia, and astigmatism. With few disadvantages, LASIK has proved successful in a large majority of cases.

I. INTRODUCTION

LASIK eye surgery is a procedure that has been around since about 1991. It was developed by a Greek doctor name Ioannis Pallikaris The name LASIK stands for laser in situ keratomileusis. This procedure is meant for the treatment of refractive errors and the improvement of vision. Refractive errors treated include myopia, hyperopia, and astigmatism. Each patient is given an evaluation to see if they can be a candidate for the procedure. Certain patients, like those with very high prescriptions of myopia and hyperopia, may not considered as candidates for LASIK.

II. METHODS

The procedure begins with numbing eye drops so that nothing is felt during the surgery. A surgeon first uses a microkeratome to create a corneal flap to be pulled back. The surgeon then uses a laser, called an excimer laser, to reshape the cornea in a way that is specific to each patient's prescription. When the shape of the cornea is modified in a



way that should create more focused images, the flap is then moved back on top of the cornea. After the surgery, the patient is told to rest and will experience discomfort in the eye(s) operated on. It is very important for the patient to refrain from any rubbing of the eye.

III. RESULTS

In recent years, studies show that the overall satisfaction of LASIK patients has been at about 95%. In 22 studies of recovered patients with myopia, about 94% of patients had their vision reach 20/40. For the patients in those studies with hyperopia, about 88% also reached 20/40. Possible

complications can include eye infection, dry eye, and issues with the corneal flap. However, in most cases these complications can be treated easily by any eye doctor. It is possible that glasses or contacts will be needed again to aid in vision due to regression as a patient ages. If too much corneal tissue is taken off, it is possible that the vision can be over-corrected and therefore left unfixed.

IV. DISCUSSION

LASIK eye surgery has proven to be very successful in the past 20 years. The procedure is generally very quick and accurate. The cost can range from about \$1,500-\$3,500 per eye. While it is a bit expensive, a patient would typically only need one single treatment and therefore may save money from future treatments. The most common disadvantage of the surgery is that many patients may end up with chronic dry eye. However, this can be treated with eye drops prescribed by a doctor. In the future, advances will be made to eliminate the possibility of over-correcting and under-correcting the cornea. Also, research is currently being done to try to make LASIK usable for all levels of refractive error.

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