Eye Donation Facts

The cornea is the transparent outer portion of the eyeball that transmits light to the retina. It is a 1/2-inch wide film of tissue that forms a protective covering on the front of the eye. The cornea can become cloudy or damaged/distorted from diseases, infections or eye injuries.

Corneal blindness can be cured in many cases through the transplant of a donated cornea. Since there is limited blood supply to the cornea, matching is not usually a problem. The first corneal transplant was performed in 1905. During the last 40 years, more than 700,000 corneal transplants have been performed in the U.S., with a success rate of more than 90 percent.

What types of conditions can lead to a corneal transplant?

**Keratoconus**

In this eye disease, the normally round, spherical-shaped cornea becomes distorted, resulting in significant visual impairment. As this disease progresses, the cornea thins and bulges forward, sometimes forming scars. Keratoconus affects one out of every 2,000 persons in the general population. About 20 percent of people with keratoconus are candidates for corneal transplants. The success rate for corneal transplants in people with keratoconus is 95 percent.

**Bullous Keratopathy**

This is a general term for corneal swelling and blistering. It is most common in older people. Sometimes, bullous keratopathy occurs after eye surgery, such as cataract removal. The swelling leads to the formation of fluid-filled blisters on the surface of the cornea. The blisters can rupture, causing pain and vision impairment. If vision is too impaired for daily activities, or there is a great deal of pain, a corneal transplant may be recommended.

**Fuchs’ Dystrophy**

This is a slowly progressing disease that usually affects both eyes, and is slightly more common in women than men. Although there may be early signs of Fuchs’ dystrophy in people ages 30 to 40, the disease rarely affects vision until a person reaches ages 50 to 60. Cells in the cornea gradually deteriorate, for no apparent reason. As cell deterioration progresses, the cornea swells and eventually distorts vision.
Herpes simplex virus is the most common cause of corneal blindness in the U.S. An estimated 450,000 Americans develop recurring episodes, and about 46,000 people are affected every year. There are two forms of this eye disease — varicella-zoster virus, and herpes simplex type 1. In severe cases, corneal scarring may necessitate a corneal transplant.

What does a corneal transplant involve?
Corneal transplants are performed under local anesthesia, usually on an outpatient basis. Most patients experience very little pain or discomfort after surgery. The damaged cornea is replaced with a donated human cornea, or in complex, high-risk cases, an artificial cornea. There are no age restrictions for getting a transplant or becoming a donor. Recipients have ranged in age from newborn to over age 100. Once the healing period of eight to 12 months has passed, recipients can resume all daily activities with greatly improved vision.

What is an eye bank?
An eye bank obtains, medically evaluates, and distributes donated eyes for use in corneal transplants, research, and education. Eye banks are non-profit organizations. They follow evaluation procedures in accordance with strict medical standards, set by the Eye Bank Association of America.

Eyes unsuitable for transplant due to eye disease or other conditions, are still vital to research and education. Good vision is not necessarily an important criteria in evaluating an eye donation, as the clarity of the cornea is the critical factor in a successful transplant.

How do I become a donor?
According to the Uniform Anatomical Gift Act, anyone age 18 or older in all 50 states can indicate the desire to be an organ donor by signing a donor card, or the back of their driver’s license. It is essential to share this information with family members and your physician. All costs associated with the donation are paid by the donor program. Most states also have laws that require that family members be given the option to donate a deceased loved one’s organs and tissues for transplants.

CONSIDER GIVING THE GIFT OF SIGHT — BECOME A DONOR!