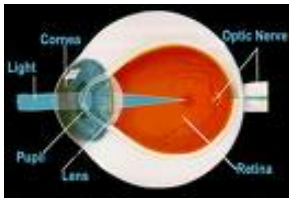


The Rotary Club of Nairobi is proud to inform you about the establishment of the first functional Eye Bank in sub-Saharan Africa. An Eye Bank is a non-profit organization, which deals in the collection of human corneas after death for the purpose of corneal transplant as well as further research. It involves quality assurance and distribution of corneas to eye surgeons.

What is a cornea?

The cornea is the front transparent window of the eye. The shape of the cornea is similar to that of a watch glass. It focuses light rays from the cornea on to the lens and on to the retina.



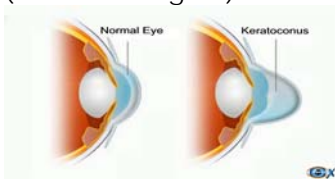
Common Diseases of the Cornea

Corneal diseases that compromise the transparency of the cornea could be caused due to scarring after trauma, ulceration, hereditary, infection or scarring from previous ophthalmic surgery. Certain ageing processes also affect the clarity and health of the cornea. Another factor that is very common is **Keratoconus**.

What is Keratoconus?

Keratoconus occurs when the cornea becomes thin and out of shape and therefore bulges outwards. The shape of a normal cornea is similar to that of a soccer ball. However, for a patient who has Keratoconus, the cornea is shaped like a rugby ball. This condition usually occurs in teens or early 20s.

If there is progressive thinning of the cornea and rupturing of the inner membrane, this may lead to formation of hydrops, where the cornea becomes completely cloudy. (Please see figure)



Management of Keratoconus:

1. Contact Lenses: this is not a viable solution for many patients as they are unable to tolerate them due to the dusty conditions in rural areas.
2. Cross – Linking treatment (C3R): If it is caught at its early stages the medical breakthrough of cross-linking (C3R) can be used to rectify the situation. This is a mini-invasive treatment, which has been proven to strengthen the weak corneal structure. Our Honorary Rotarian Dr Mukesh Joshi was the first to start cross-linking in Africa and Asia.
3. Corneal Grafting: please read below

What is a corneal transplant?

A corneal transplant is a delicate, micro-surgical procedure that replaces a disc shaped segment of an injured or diseased cornea with a similarly shaped piece of healthy donor cornea, where 24-32 micro stitches are applied all around the cornea. 90% of the corneal surgeries that are carried out in Kenya are due to Keratoconus.



Hydrops



After Corneal Transplant

How great is the need for corneas and eye tissue?

There are many corneal graft surgeries taking place each year in Kenya using tissue acquired from the United States, an expensive procedure. The Rotary Club of Nairobi has conducted free surgeries for the past 20 years for some patients. The need for these surgeries in Kenya is increasing and unfortunately, never satisfied. To date the use of artificial materials for corneal transplants has been unsuccessful. As a result patients are dependent solely on the gift of tissue donation.

The Rotary Eye Bank at the Nairobi Hospital

Nairobi Hospital will house the eye bank in Kenya. Two theatre assistants will be trained to harvest the eyes. The Rotary Club of Nairobi (through a matching grant of Rotary International and corporate donors) will provide the equipment to set up the eye bank. There is hope that in the future, Aga-Khan hospital and MP shah hospital will also be used to obtain corneas.

Technical Assistance:

Honorary Rotarian Dr Mukesh Joshi will give technical advice. Dr. Joshi has carried out over 8000 free cataract operations for the Rotary Club and is a leading corneal specialist in Kenya. He has carried out 90% of the corneal transplants done in Kenya in the last two years.



My son, Duncan Maina was becoming blind and had stopped going to school five years ago. I had been to many Doctors and they had said that I would have to travel to India or South Africa for the treatment. I then heard about Dr. Joshi and he carried out the successful Corneal Transplant. I am very grateful to the Rotary Club of Nairobi as it is through them that my son's sight has been restored and he has returned to school. God Bless them!
... Lucy Maina (mother to Duncan Maina)



I was diagnosed with having Keratoconus a few years ago. My condition was at an advanced stage and I had stopped going to school, as I could not see anymore. Through the Rotary Club, I was able to undergo free corneal grafting in both my eyes. I am currently studying nursing and intend to devote my services to the Rotary

Club in the free time to the Rotary Club.... *Nelly Wanjiku (Student)*



"I received a corneal transplant in my Left Eye in 1997. I have excellent vision now thanks to the corneal transplant and have achieved my educational as well as personal goals. The importance of corneal grafting cannot be emphasized enough for those who desperately require it. My cornea came from the United States. A local Eye Bank is a very noble and deserving cause indeed, which is worth supporting ... *Alakh Kohli (Banker)*



I had been having eye problems since I was 3 years old. One morning, I woke up and found that my left eye was completely white and I lost my vision in that eye. I underwent a successful corneal transplant, I can see better than before, so I request my dear Muslim brothers and sisters to donate their eyes and help others. . . . *Mariam Wairimu Mahmoud (Student)*



I am 13 years old and had stopped going to school last year as my vision had become very poor. I am now able to see better after the corneal grafting operation and I was ranked the third best student in my class. Dr. Joshi has said that next year, I should make it all the way to the top. ... *Mercy Wanjiku (Student)*