

Cornea Transplantation

- Corneal transplants are successful sight-saving operations, with 93% of transplants functioning after one year. By five years, 74% of transplants are still functioning and many will continue for many more years after that.
- The first successful corneal transplant was performed in Olomouc, Moravia, (Czech Republic) on 7 December 1905.
- Last year (2008-09) 2,711 people had their sight restored by corneas supplied through NHS Blood and Transplant (NHSBT).
- Last year, 2,075 people donated their eyes after their death but there is still a major shortage of corneas in the UK. Many more people would benefit from a sight-saving transplant if more eyes were donated.
- 249 (30%) of the 899 organ donors also donated eyes in 2008-09.
- As with solid organs, the sooner that eyes are retrieved the better the transplant outcome.
- There is a shortage each year of approximately 500 corneas. The number of requests to NHSBT that cannot be met has increased owing to increased demand.
- The increased demand has been brought about by advances in corneal transplantation.
- People of all ages can donate eyes and about 65% of eye-only donors are over 60 years old.
- The eye banks match recipients with corneas from similar aged donors and recent increases in the age of donors has resulted in a shortage of quality corneas for younger recipients.
- The shortage of corneas from younger donors is evident from the increase in the average age of eye donors, which has increased from 64 yrs to 71 yrs in the past five years.
- Although eye donation and retrieval usually occurs in hospitals, successful donation can also occur from hospices and funeral directors.
- Both old and young patients benefit from cornea transplants. The youngest person to receive a cornea transplant was just a few days old and the oldest was 104.
- The most common reason for corneal transplantation in younger people is a condition called keratoconus. This condition accounts for one-quarter of all corneal transplants and mainly affects younger people; average age of 29.
- 53% of cornea transplant recipients are male and more men than women donate their eyes - the ratio of men to women is about 3:2 for eye-only donors.
- More than 48,000 cornea transplants have been recorded on the UK Transplant Registry since the Corneal Transplant Service (CTS) began in 1983.
- The CTS was launched to give equal access to corneas throughout the UK.
- 90% of transplants use corneas stored in the CTS Eye Banks in Bristol and Manchester, which use special techniques to store the corneas for up to four weeks. Corneas are sent to the CTS Eye Banks from hospitals throughout the UK for storage and subsequent distribution to more than 200 cornea transplant units.
- The NHS Organ Donor Register invites people to specify which organs they wish to donate. At the end of March 2009, 87% of people joining the register indicated a willingness to donate all organs and tissue. Only 7.1% declined to offer their eyes.
- There are now ten hospitals around the country with dedicated eye coordinators funded by NHS Blood and Transplant, aiming to maintain or increase supplies of corneas for transplant.

About the cornea

- The cornea is the clear tissue at the front of the eye that lets in light and helps focus it on the retina so that we can see.
- Disease or injury can make the cornea cloudy or distorted in shape, causing loss of vision.
- The cornea is very prone to becoming scarred following infections such as ulceration of the cornea with contact lens wear.
- A corneal transplant replaces diseased corneal tissue with a disc of healthy tissue from a donor.
- The procedure is straightforward and usually takes about an hour to complete.
- There is no upper age limit to eye donation – many successful transplants have been performed with corneas from donors in their 90s.
- The most common reason for corneal transplantation in younger people is a condition called keratoconus where the cornea becomes misshapen and cone-shaped.
- In older people, age-related or inherited conditions may lead to cloudiness of the cornea.
- Transplants are also needed to remove scarring caused by herpes, the cold sore virus, which can infect the cornea.
- UK Rotarians help to promote eye donation and encourage people to join the NHS Organ Donor Register. The campaign was launched in Bristol and Bath in 1986.

You can find out more about organ donation and join the NHS Organ Donor Register by calling 0300 123 23 23 or visiting the NHSBT website www.organdonation.nhs.uk