



# Eye Donation & Eye Banking

**Kishan Reddy**  
**Manager – Eye Bank**  
**Ramayamma International Eye Bank**

**What is Blindness?**

**What is Corneal blindness?**

**What is Eye donation?**

**What is Eye banking?**

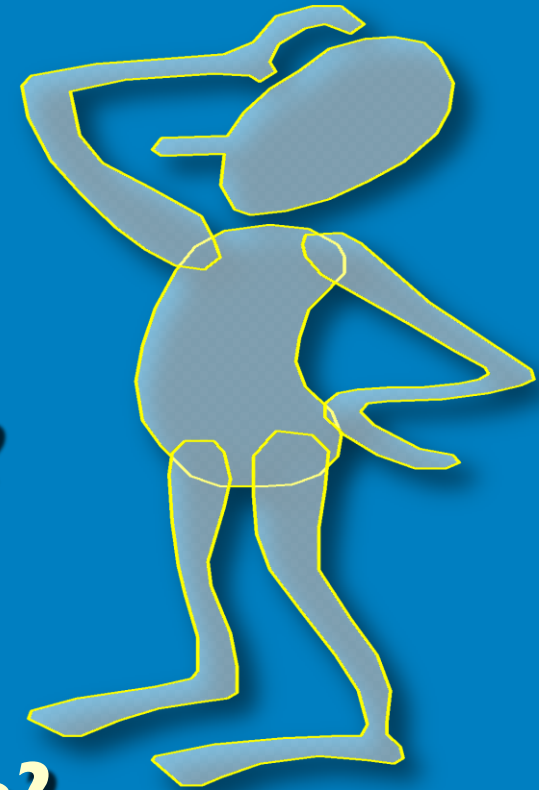
**When to Make an eye donation?**

**How to Make an eye donation?**

**Who can Donate eyes?**

**What is Corneal transplantation?**

**How can You help the blind?**



# **BLINDNESS**



## **Unilateral blindness & Bilateral blindness**

# BLINDNESS

## BLINDNESS



**Worldwide - 50 million**  
**India - 10 million**

## CORNEAL BLINDNESS

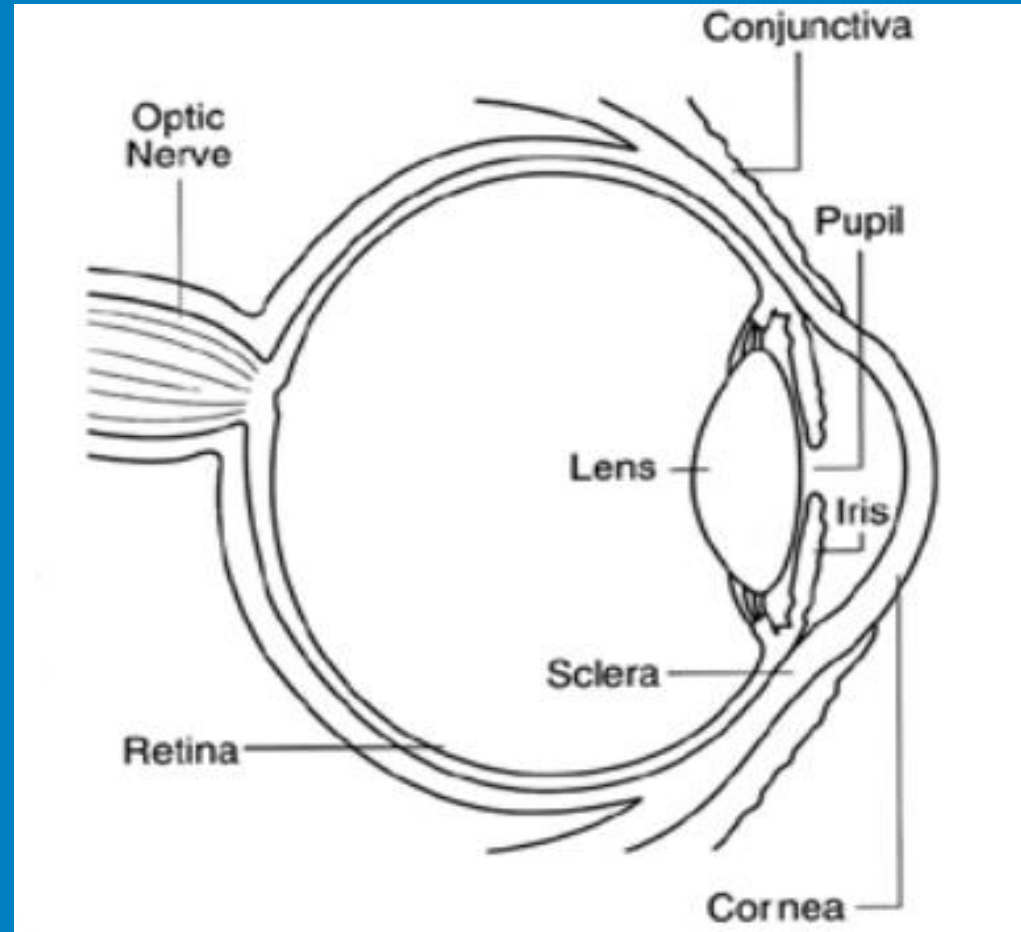
**Worldwide - 8 million**  
**India - 1.1 million**

# BLINDNESS

## CAUSES

Cataract  
Refractive error  
Retinal diseases  
Glaucoma

Corneal diseases



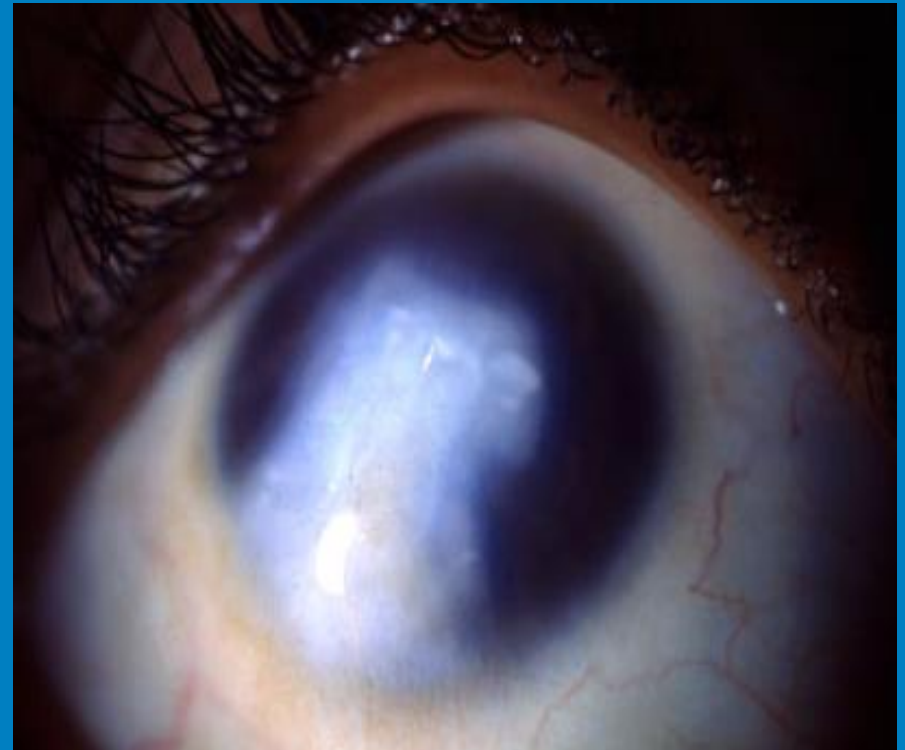
# Cornea

**Cornea is a clear transparent outer layer of the eye.**



# Magnitude of the problem

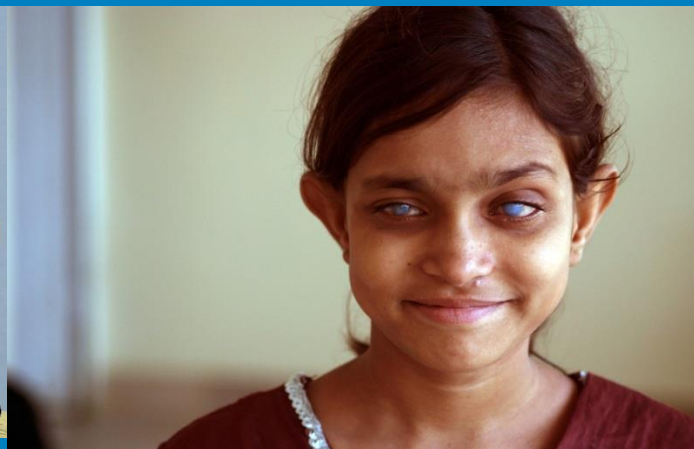
- **1.1 million blind in India**
- **Children & young adults**
- **30,000 – 40,000 new cases/year**







# Children awaiting for cornea



# Eye Donation scenario in India

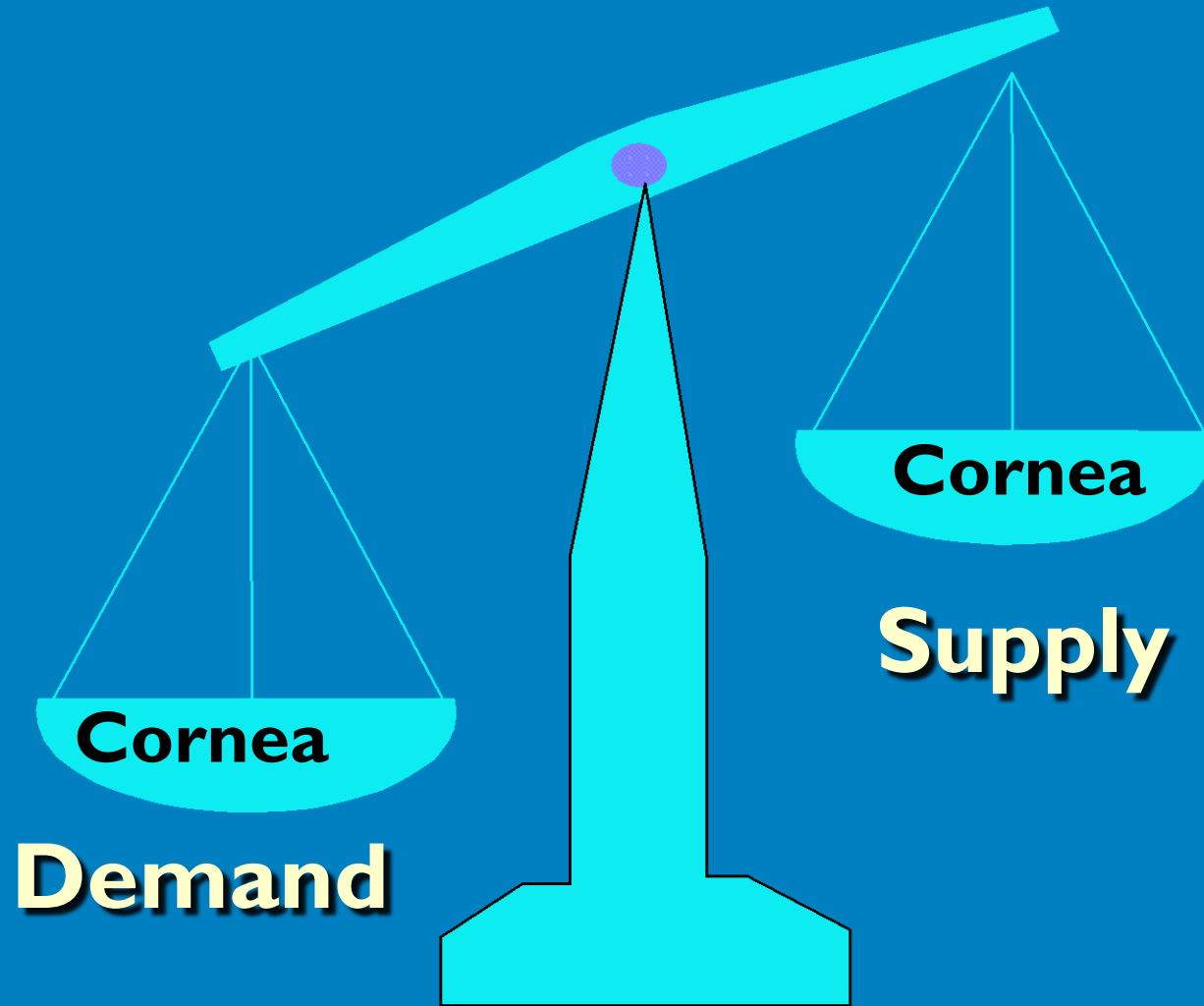


**Requirement:** 100,000 transplantable corneas

**Procurement :** 37,000 (EBAI)

**Utilization:** 50%





# CORNEAL BLINDNESS



## Why there is shortage of donor corneas?

**Facts** →

- **Cornea is not commercially available**
- **Only an eye donation from a deceased can make corneas available**

# CORNEAL BLINDNESS



## Why there is shortage of donor corneas?

### Myths



- **Body is incomplete without cornea**
- **No eyes when reborn**
- **No right to donate eyes even after death**
- **Religion object to eye donation**

# CORNEAL BLINDNESS



## Why there is shortage of donor corneas?

### Myths →

- Eyes are donated when alive
- Causes disfigurement of face
- Causes delay in funeral arrangement
- Body should be taken to eye surgeon
- Only those who have pledged can donate eyes

# CORNEAL BLINDNESS



## Why there is shortage of donor corneas?

- Lack of awareness
- Lack of community participation & social responsibility
- Lack of cooperation from Medical & Paramedical personnel
- Needs motivation while in grief
- Lack of favorable laws



# FACTS ABOUT EYE DONATION



## Who can be an Eye Donor?

**Persons of any age, sex, spectacle wearers, those with diabetes, or hypertension can donate eyes after death**

# FACTS ABOUT EYE DONATION



**Is the whole eye removed?**

**NO. Only cornea is removed from the eye because only cornea is used for transplantation**

# FACTS ABOUT EYE DONATION



**How soon should corneas be removed after death?**

**Within 9 hours of death**

# FACTS ABOUT EYE DONATION



## Is family consent essential to make an Eye Donation?

- **The consent of the next of kin is essential for removing the eyes after a person's death.**
- **It is therefore important to share your wish to donate eyes with your family members, when one is alive.**

# FACTS ABOUT EYE DONATION



**Is it essential to sign a pledge card to be an eye donor?**

**NO. Consent of surviving family member is needed for an eye bank to remove eyes from a deceased person**

**More important than pledging is to convince your family member about eye donation and request them to make it happen after your death**

# FACTS ABOUT EYE DONATION



**Do religions support eye donation?**

**YES. All religions support, approve, and consider eye donation as the most supreme form of gift**

# FACTS ABOUT EYE DONATION



**Is it necessary to take the deceased to the eye surgeon to make an eye donation?**

**NO.** The eye bank team will recover eyes wherever donor is, be it a residence, hospital, mortuary, road, or burial ground

# FACTS ABOUT EYE DONATION



**Are all corneas collected suitable for transplantation?**

**NO. Corneas medically unsuitable for transplantation are used for research & training**



# FACTS ABOUT EYE DONATION



## Why small amount of blood is collected from the donor?

- The donor should be screened for infectious diseases.
- Only corneas from donors free of contagious diseases are used for transplantation

# FACTS ABOUT EYE DONATION



**Will the donor family know the identity of the recipient and vice versa?**

**NO. The donor-recipient information is maintained confidential as per the code of ethics, throughout the world**

# FACTS ABOUT EYE DONATION



**Is any fee paid to the donor for the corneas donated or fee collected from the recipient for the corneas received?**

**NO. It is illegal to buy or sell corneas., or tissues**

# FACTS ABOUT EYE DONATION



**How many patients are benefited through eye donation made by one donor?**

**Two corneally blind persons benefit from a single donor**

# Who cannot donate eyes?

- **Those with infectious diseases like Hepatitis B & C Virus, AIDS, & Septicemia.**
- **Death due to Blood Cancer**
- **Death due to unknown cause**

# EYE DONATION ACTIVITY



## Eye Donation Call

**Name & Age of the donor**

**Time of death**

**Cause of death**

**Address & Telephone**

# EYE DONATION ACTIVITY

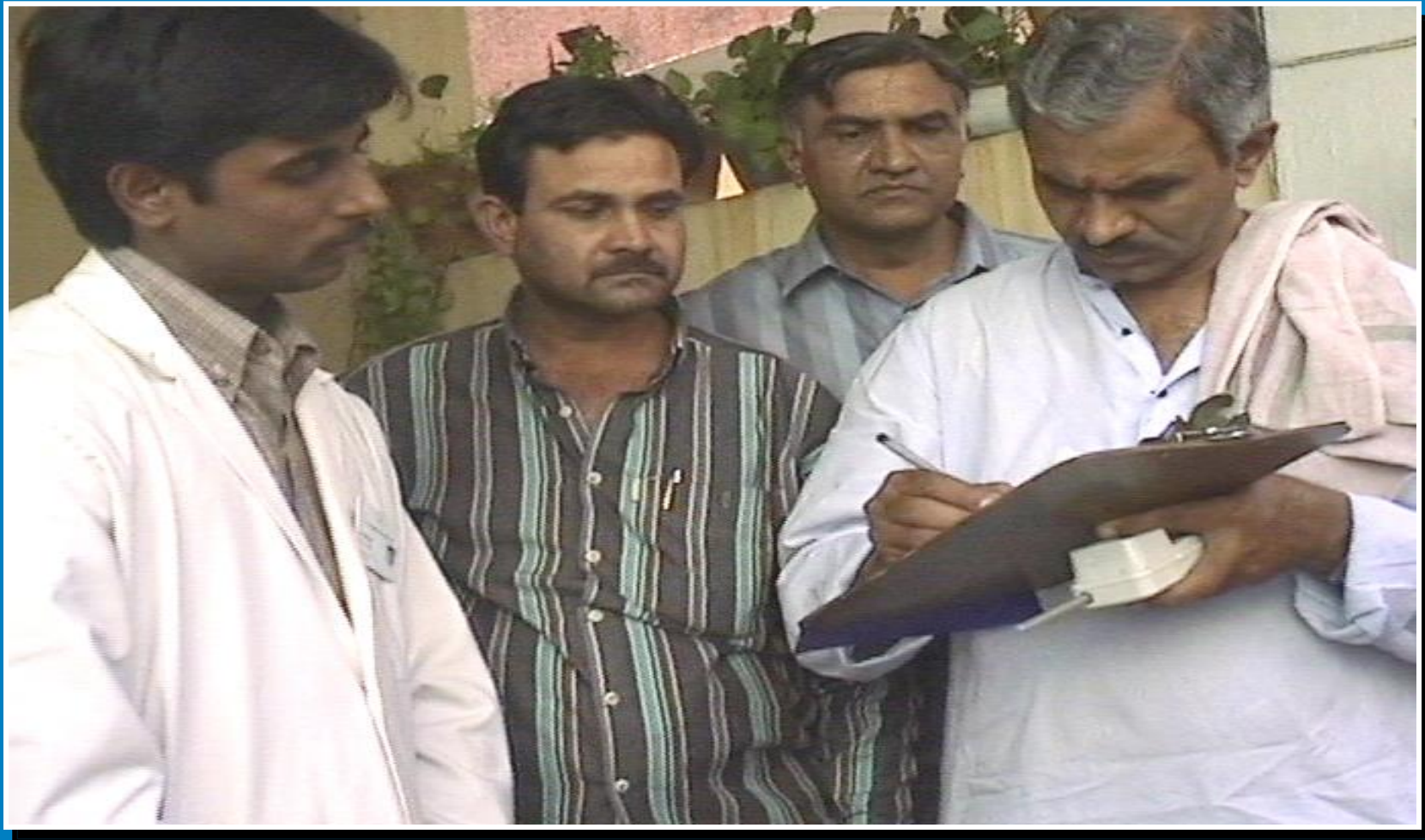


**Eye Bank team leaves eye bank within 5 min.**



# EYE DONATION ACTIVITY

Obtain written consent from family member





# EYE DONATION ACTIVITY

**Wears gown, mask & gloves**



# EYE DONATION ACTIVITY

**Create a clean place at the donor site**



# EYE DONATION ACTIVITY

## Examine the donor



# EYE DONATION ACTIVITY

## Drape donor body



# EYE DONATION ACTIVITY

## Drape donor face



# EYE DONATION ACTIVITY

## Perform corneal excision



**Cornea**

# EYE DONATION ACTIVITY

Place cornea in preservation medium



Cornea

# EYE DONATION ACTIVITY

## Draw blood from the donor





# EYE DONATION ACTIVITY



**Transfer blood to test tube for storage**



# EYE DONATION ACTIVITY

Place corneas and blood in  
ice box for transport



# AN EYE BANK

**An eye bank is a voluntary organization that is involved in the procurement, evaluation and distribution of human donor corneas to surgeons for performing corneal transplantation in patients suffering from corneal blindness**

# EYE BANK FUNCTIONS



- **Create public awareness**
- **Donor cornea procurement**
- **Donor cornea evaluation**
- **Donor cornea storage**
- **Donor cornea distribution**

# EYE BANK FUNCTIONS



- **Public awareness**  
**Media, news paper, talks, publicity materials**
- **Hospital Cornea Retrieval Program – HCRP**  
**Eye Donation Counselors**  
**Volunteers, Paid staff**  
**Motivate family members of a deceased**

# EYE BANK FUNCTIONS



## Donor Cornea Procurement

- **Voluntary donors**
- **Hospital Cornea Retrieval Programme**
- **Volunteers – Lions, Rotary & others**

# EYE DONATION ACTIVITY

## Evaluate donor corneas

Slit lamp biomicroscope



Specular microscope



# EYE DONATION ACTIVITY

Perform serological testing of donor blood

- HIV
- HBS Ag
- Syphilis (VDRL)
- HCV



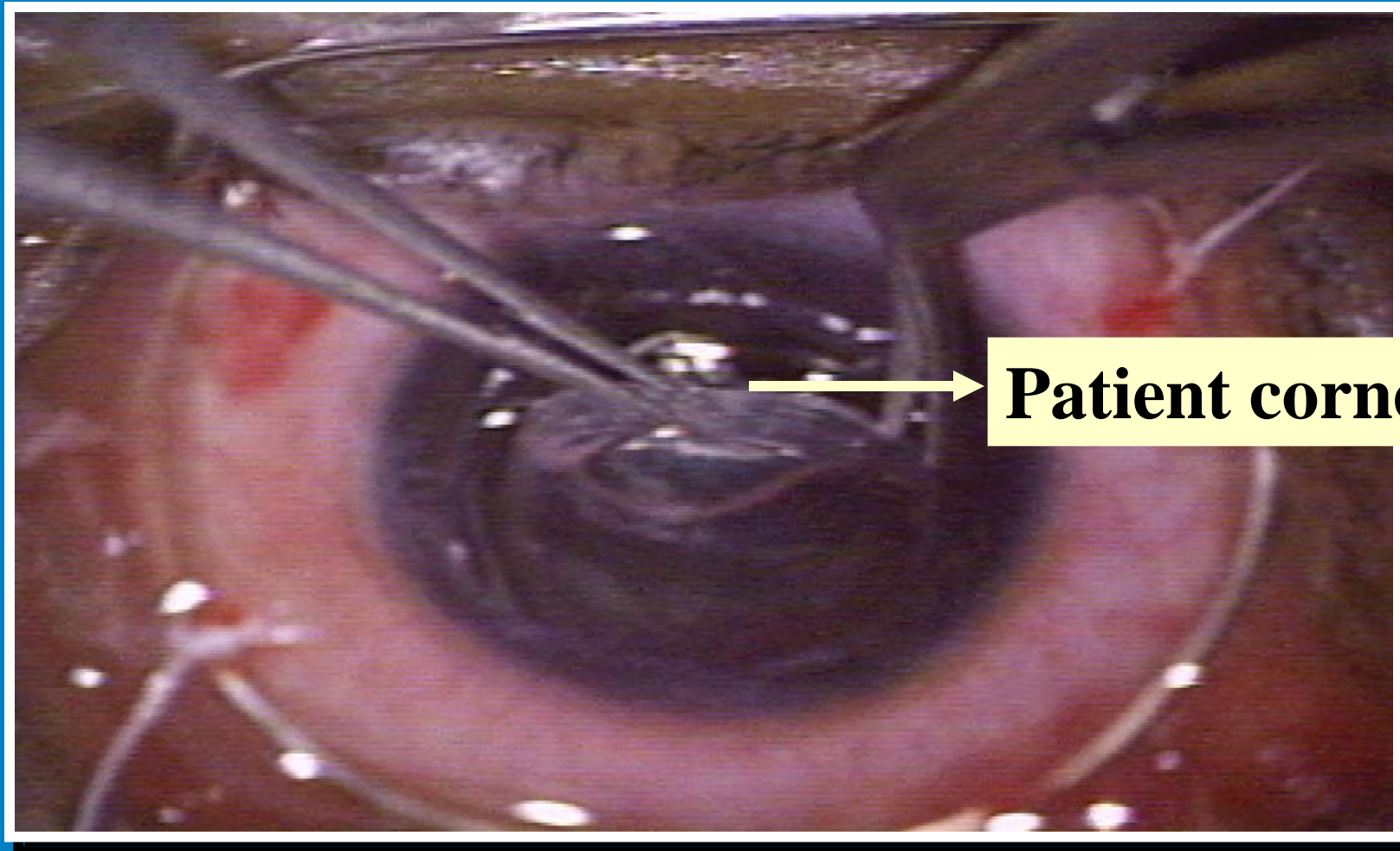


# Perform Corneal transplantation



# Perform Corneal transplantation

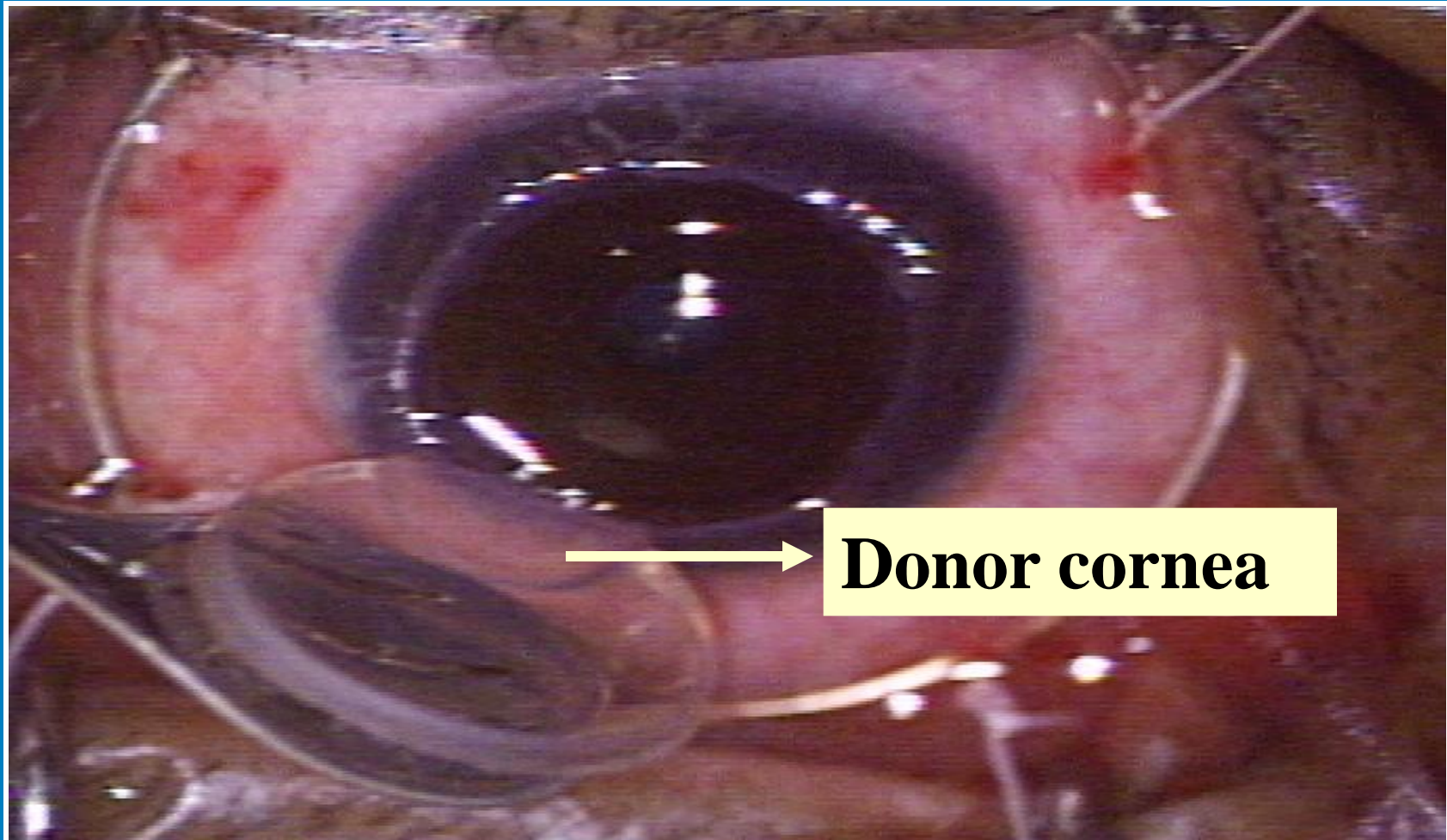
Remove affected cornea from the patient



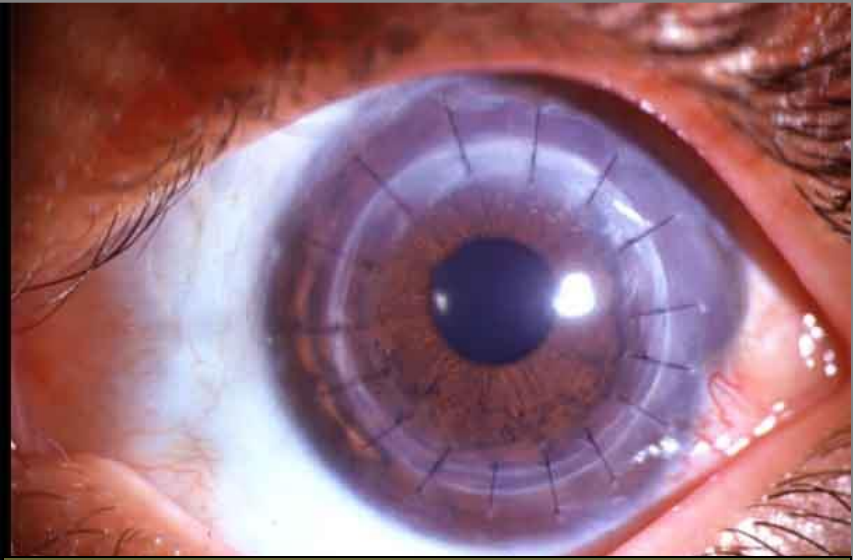
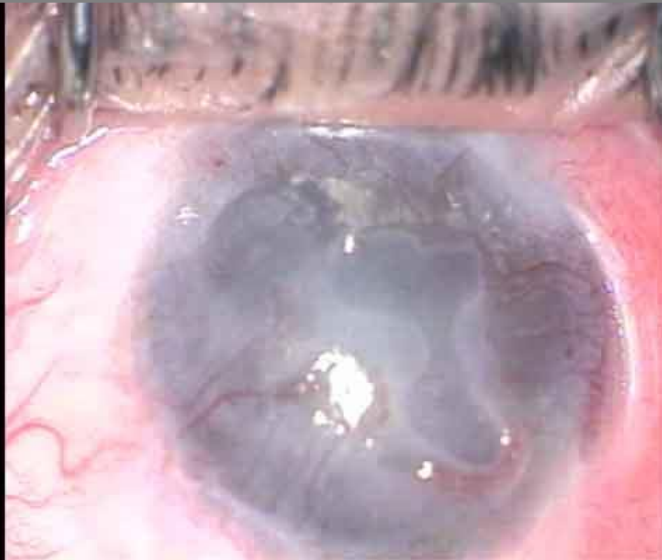
Patient cornea

# Perform Corneal transplantation

Replace affected cornea with donor cornea



# Perform Corneal transplantation



**Successful  
Corneal  
Transplantation**

# Acknowledge Donor Family



- **“Thank You”** Letter
- Certificate of **“Appreciation”**
- Request for **“expression of feeling”**  
as a donor family member  
who enabled eye donation  
to let a blind regain sight

# Donor Family Expression

*First of all let me thank the person who approached me and gave me the opportunity of donating eyes of my husband. This thought of donation would not have come to me at that shocking period.....”*

**When you witness a death.....**  
**Try to motivate the family, or, call**  
**the eye bank for a counselor**

**Phone: 1919, 23548266,**  
**9849545822**

# Eye Donation

**Make it your family tradition**



**Thank you!**



**LV Prasad Eye Institute**

**[www.lvpei.org](http://www.lvpei.org)**

**Excellence**



**Equity**



**Efficiency**