


BASICS OF ORGAN DONATION

A photograph showing four hands of different skin tones cupped together, holding a small, glossy red heart. The background is a solid light blue.

**BY:
ROTARY CLUB
OF
ORGAN
DONATION
(RID 3234)**

WHAT IS ORGAN DONATION?

- Organ donation involves giving an organ or organs to save or improve someone else's life. The person who gives an organ is the DONOR and the person who receives an organ is the RECIPIENT
- Organ donation is the process of surgically removing an organ or tissue from the donor (called organ retrieval) and placing it into the recipient (called organ transplantation)
- Organ recipient is a patient suffering from organ failure who will not survive unless she/he receives an organ replacement
- While some organs can be donated while you're alive, most donations come from people who have passed away



IMPORTANCE OF ORGAN DONATION

- The primary goal of organ donation is to save or improve the quality of someone's life, offering the recipient a second chance to live a healthy, productive life.
- Donated tissues, such as corneas, tendons, and bones, can restore sight, movement, and other functions



ORGAN DONATION IN INDIA – THE SAD REALITY

- In India, around 500,000 people die annually due to organ failure
- Less than one per million Indians opt to donate
- India has the lowest organ donation rate in the world (0.52 pmp)
- Over 300,000 patients are on the waiting list for organ transplant
- About 20 Indians die daily due to the shortage of available organs for transplant



ORGANS & TISSUES THAT CAN BE DONATED & TRANSPLANTED



Kidney



Heart



Heart Valves



Liver



Bone



Cornea



Skin



Connective tissue



Lung



Pancreas



Intestine



Bone Marrow

Kidneys Are The Most Demanded Organs

80.8%

Kidney

14.1%

Liver

2.8%

Heart

1.9%

Pancreas

1.4%

Lungs

0.2%

Intestine



ORGAN DONATION AFTER BRAIN STEM DEATH

- A common misconception is that organs can be donated after any type of death
- If death occurs at home, only eyes and skin can be donated
- In India, organ donation usually occurs after brain stem death in an hospital
- Organs can be retrieved (taken) from a brain stem dead person only after obtaining consent from immediate relatives



WHAT IS BRAIN STEM DEATH?

- Brain stem death is defined as the irreversible cessation of brain function, circulation, and respiration, marking the person as clinically dead
- Though artificial ventilation can sustain heart function and circulation temporarily, organs can be retrieved during this period and can be used for transplantation to another person

WHAT IS THE DIFFERENCE BETWEEN BRAIN DEATH & BRAIN STEM DEATH?

- Brain death and brainstem death are often used interchangeably, but in some contexts, there's a subtle difference depending on medical or legal definitions in various countries
- Brain death, or whole brain death, refers to the irreversible cessation of all brain functions, including the brainstem
- Brainstem death specifically refers to the irreversible cessation of all brainstem functions

WHAT IS BRAIN DEATH?

Definition: Irreversible loss of all brain activity — including the cerebral cortex (responsible for consciousness, thinking) and the brain stem (controls vital functions like breathing and heart rate).

Clinical Meaning: The person is legally and medically dead.

Key Characteristics:

- No brain activity on EEG (electroencephalogram)
- No spontaneous breathing (apnea)
- No responses to stimuli (pain, light, sound)
- Confirmed by neurological tests and sometimes imaging (e.g., cerebral blood flow scan)



WHAT IS BRAIN STEM DEATH?

Definition: Irreversible loss of function in the brain stem only

Why it matters: The brain stem controls basic life functions. If it is non-functional, the person cannot breathe or maintain consciousness, even if other parts of the brain still show some minimal activity

Clinical Meaning: In many countries, brain stem death is equivalent to death because life-sustaining functions can't continue without machines

Key Characteristics:

- No brain stem reflexes (like pupil reaction, gag reflex)
- No ability to breathe without a ventilator
- Irreversible damage confirmed through testing

BRAIN STEM DEATH v/s COMA

Brain stem death and coma are two distinct conditions.

- Coma patients are not brain-dead; they are alive but in a reversible state and cannot be considered for organ donation
- Brain stem death is irreversible and signifies actual clinical death



WHO CAN BE AN ORGAN DONOR?

- Anyone, regardless of sex, blood group, or age, can be a potential living or deceased donor
- Upon death, suitability of a donor (which organs he/she can donate) is evaluated based on medical history and condition
- Even a 100-year-old can donate skin for treatment after death



WHO CANNOT BE AN ORGAN DONOR?

- Individuals with HIV, Hepatitis B or C, STDs, generalized infections, septicemia, skin infections, or skin cancer cannot donate organs
- However, having a medical condition doesn't automatically disqualify someone. Healthcare professionals assess suitability based on medical history
- There have been instances where an HIV infected donor has donated to an HIV infected recipient

DIFFERENT TYPES OF ORGAN DONATIONS

There are two types of organ donations:

Living Organ Donations:

- Made by near relatives or non-relatives, including blood, one kidney, part of the liver, a lung lobe, part of the pancreas or intestine, and bone marrow

Deceased Organ Donations:

- Occur after death, usually following brain stem death, and can include kidneys, liver, lungs, heart, pancreas, intestines, hands, and even the face.
- To receive an organ from a deceased donor, one must register in the cadaver transplant registry. Priority on the waiting list is based on age, medical condition, waiting time, etc.

TISSUES THAT CAN BE DONATED

- Corneas
- The middle ear
- Skin
- Heart valves
- Bone
- Veins
- Cartilage
- Tendons
- Ligaments

Doctors use these to restore sight, cover burns, repair hearts, replace veins, and mend damaged connective tissue and cartilage



BEST BEFORE TIMINGS FOR DONATED ORGANS

Once the organs have been retrieved, they cannot be kept outside the body for very long and need to be transplanted within the following time periods -

- Heart - 4-6 hrs.
- Lungs - 4-6 hrs.
- Liver - 6-12 hrs.
- Pancreas - 6 hrs.
- Kidney - Up to 30 hrs.
- Cornea - 2 weeks (routine media used can store cornea for up to 4 days)
- Skin - 5 yrs.



*Human Right
Law*

BODY DONATION v/s ORGAN DONATION

- Organ donation involves giving organs for transplant while alive or after brain stem death
- Body donation is for medical education and research after death
- Body donors cannot donate any organs except eyes (corneas) and skin
- One can register for body donation at the Anatomy Department of any Government Medical College
- Body donation can be done within six hours of death without prior registration
- You can find a list of hospitals/NGOs in your state and city that accept body donation by clicking here:
<https://www.organindia.org/body-donation/>

BUSTING MYTHS & SUPERSTITIONS

- Organ donation does not cause mutilation of the body and the deceased donor is treated with utmost respect
- After organ retrieval (removal) the deceased body is handed over in intact condition to the family for last rites
- All religions support organ donation
- Organs are retrieved from a brain dead person only after removal of ventilator support. So donor does not feel any pain or suffering
- Living donation is very safe and donors live healthy and normal lives after organ donation



BUSTING MYTHS & SUPERSTITIONS

- Donor families are not charged by hospitals for donating their loved ones organs
- Buying and selling of organs is illegal in India and can result in penalty and jail term
- Dying patients below 18 years can donate their organs with parental consent
- The rich and famous do not get priority on the wait list to receive an organ
- Your medical treatment at any hospital will not be comprised if you have pledged to donate your organs

DO YOU WISH TO BE AN ORGAN DONOR?

- You can register as an organ donor at:
<https://notto.abdm.gov.in/register>.
- Your Aadhar card is required for registration
- Most important - Inform your family/next of kin of your decision to donate your organs, as their consent is crucial in the event of brain death
- You can change your decision to donate anytime by discarding your donation card, canceling your registration with NOTTO, and informing your next of kin, as they will make the final decision

**SCAN THIS QR CODE TO
PLEDGE YOUR ORGANS**



To know more ...

**Scan the QR code to learn about
Organ Donation Awareness**

**अंगदान जागरूकता के बारे में जानने के
लिए क्यूआर कोड को स्कैन करें**



हिन्दी - हिंदी



मराठी - मराठी



ગુજરાતી - ગુજરાતી



தமிழ் - தமிழ்



ಕನ್ನಡ - ಕನ್ನಡ



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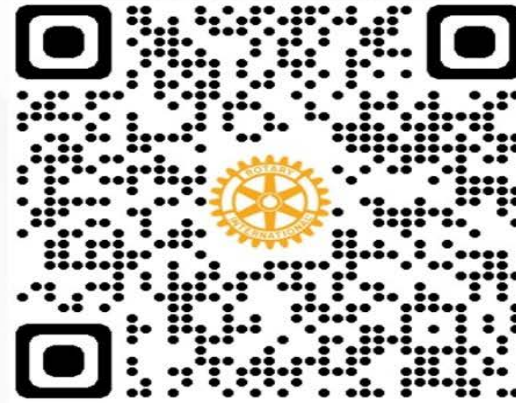
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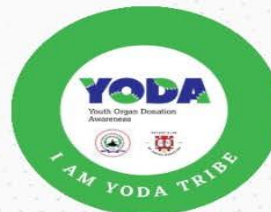
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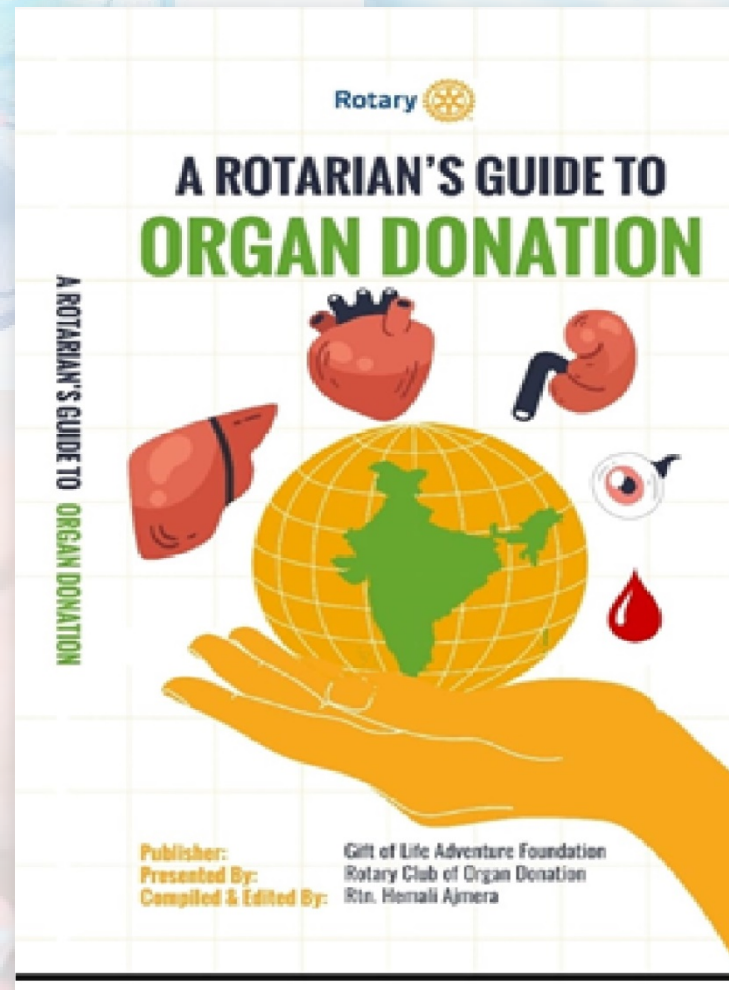
Rotary
Club of Organ
Donation



One India One Law
— The Voice of Organ Donors & Recipients —

To know more about Organ Donation

A Rotarian's Guide to Organ Donation





TOGETHER LET US ENSURE NO ONE DIES WAITING FOR AN ORGAN!

THANK YOU!