



सत्यमेव जयते



## REGIONAL CUM STATE ORGAN AND TISSUE TRANSPLANT ORGANISATION WEST & MAHARASHTRA

### What is organ donation?

Organ donation is the gifting of an organ to patients suffering from end stage organ failure who would die unless they received an organ transplant. Organ donation is an extremely generous act. It can save the lives of lakhs of patients every year.

Organ donation relies on the selfless generosity of living donors, and the families of deceased donors who give their consent for donation.

### What is tissue donation?

Many tissues can also be donated. They are used to improve the quality of life of patients by restoring sight, reconstructing skeletal defects, and making rehabilitation quicker and less painful.

Tissue donation also requires the consent of donors and their families.

### What is organ and tissue transplantation?

Human organ and tissue transplantation involves the transfer of a healthy organ and/or tissue from a living or dead person to a recipient in need, through established surgical procedures.

### How does organ and tissue donation take place?

There are three ways to donate organs and tissues. These are:

1. Donation following brain stem death. Potential donors are always in the Intensive Care Unit (ICU) and connected to a ventilator.
2. Donation following circulatory (cardiac) death i.e. when the heart stops beating.
3. Donation from a living donor. Whilst you are still alive you can choose to donate an organ through a medical operation, a kidney (since we have two), and in some cases a small section of your liver or lung.

Tissues can also be donated. For example, living donors can donate discarded bone from a hip or knee replacement surgery, and amniotic membrane, the wall of the water bag that is expelled during childbirth.

### Who is eligible to be a donor?

Anyone is eligible to be a donor. Transplant surgeons evaluate each potential donor and the viability of each organ and make the final decision for eligibility of an organ donor. For both organ and tissue donation the donors social and medical history, including blood reports, are evaluated to ensure the donated organs and tissues are clinically useful, and to eliminate the risk of disease transmission.

Upfront however, everyone is a potential organ donor.

### Which organs and tissues can be donated after death?

Organs that can be donated after death include the heart, lungs, liver, kidneys, large intestine and pancreas.

Tissues that can be donated after death include heart valves, bone, tendons, ligaments, skin and cornea.

There are different time limits for the donation of different organs and tissues. Organs have to be transplanted as soon as possible. Tissues can be retrieved 12-15 hours after death. However, corneas can only be donated within 6 hours after discontinuation of the ventilator. In a multi-organ and tissue donor therefore, the organs are retrieved first followed by the tissues. When more than one organ is being donated, the order for organ retrieval is heart, liver, kidney followed by other organs.

A single organ donor can save 8 lives.

A single tissue donor can restore health in over 50 people, as donated tissues can be cut in to different shaped and sizes and used in a variety of ways.

### Do organ and tissue donors have to die only in a hospital?

Organ donation can only take place under strictly defined conditions when death occurs in a hospital ICU.

In the case of tissues, every death is an occasion for potential tissue donation regardless of where it occurs. A person dying at home can become a tissue donor.

### How long does the donation process take?

The time between declaration of brain stem death and donation is can range from 6 to 48 hours for most organs and tissues.

However, every case is different and the time taken will depend on the number and the type of organs and tissues retrieved, the location of the donation and transplant hospitals in relation to each other, medico-legal issues, and the time taken to conduct the laboratory tests, run the match list, allocate organs, and coordinate retrieval efforts. This can be a difficult time for the donor family and hospital staff but it is important to balance this with the need of those people on the waiting list for whom this donation is the only possibility of life.

### What is brain stem death?

Any individual with irreparable damage to the brain stem (an important part of the brain) is declared brain stem dead. Brain stem dead individuals cannot regain their consciousness and are not able to breathe on their own as the brain stem controls both these functions. However, the heart can continue to function for 36 to 72 hours, circulating oxygen through the blood, if the potential donor is hooked onto a ventilator and provided medical support. As the blood supply to organs can be maintained in this way for few hours, the organs can be retrieved during this period after obtaining consent from the next-of-kin. Brain stem death can be declared only in the ICU when the potential donor is connected to a ventilator.

### How is brain stem death declared?

Brain stem death is declared by a team of four doctors registered by the State Government, who are not involved in performing the transplant surgery. The team diagnoses brain stem death using neurological criteria and tests conducted twice with a gap of 6 hours for adults and 12 hours for paediatric donors. Brain stem death can only be declared in hospitals registered for organ donation by the State Government i. e. transplant hospitals or non-organ transplant retrieval centres (NTORCs). The criteria used for declaration of brain stem death are those used worldwide. A brain stem death certificate for the donor is issued to the relatives.

### Is there any chance of survival of a brain dead individual?

No. Brain stem dead individuals are dead and there is no chance of recovery.

Brain stem death must not be confused with mercy killing. In brain stem dead individuals the organs are retrieved only after the person is declared dead. Comatose patients are not brain stem dead. The comatose patient's brain stem shows signs of activity and there is a chance of the person regaining consciousness. In brain stem death there is no chance of the individual regaining consciousness. Organs are never taken at the cost of a donor's life.

### Is the donation of organs and tissues legal in India?

Yes. In India the donation and transplantation of human organs and tissues are governed by The Transplantation of Human Organs and Tissues Act (THOTA), which was passed in 1994 and amended in 2011, as well as the Transplantation of Human Organs and Tissues Rules, 2014. The Act and Rules provide for the regulation, removal, storage and transplantation of human organs and tissues for therapeutic purposes, and for the prevention of commercialised dealings in human organs and tissues. They recognize brain stem death and state the conditions for its declaration.

### Is the donor's body given back to the relatives?

Yes. The donor's body is given back to the relatives to perform the last rites after the retrieval of organs and tissues. The donation of organs is different from body donation where the whole body is given to the anatomy department of a Medical College for education and research purposes.

### Are donated organs and tissues given only to the rich?

No. In Maharashtra The Regional cum State Organ and Tissue Transplant Organisation (ROTTA-SOTTO) has established guidelines for the donation and distribution of organs, and monitors the process. The waiting lists for organs are, maintained by four Zonal Transplant Coordination Centres which are non-profit Organisations (NGO) authorised to do so by the State Government. Patients waiting for organs are listed according to priority criteria, which include age, blood group, waiting period and clinical status of recipients. Organs are allocated according to waiting list and donor-recipient suitability. The social, economic and religious status of the recipient are not considered for the allocation of organs.

Since there are artificial and biological alternatives to donated tissues available, with the exception of cornea, waiting lists are usually not maintained for tissues.

### Will the donor family know the identity of the recipient?

No. As per the law in India, the name and address of the recipient cannot be shared with the donor family and vice versa.

### Is there any disfigurement after organ and tissue donation?

No. The organs are removed carefully in the operation theatre and there is no disfigurement. There is an abdominal incision on the body which is sutured just like in any other surgery.

When tissues are removed there are additional incisions on the arms and legs. These too are taken carefully to avoid disfigurement and later sutured. If the bones of the arms and legs are retrieved then the limbs are reconstructed so that the body is not disfigured. As in any other surgical procedure the body is always treated with the utmost care and respect.

Organ and tissue donation does not interfere with customary funeral arrangements and/or open coffin viewing.

### Do different our religions support organ and tissue donation?

Yes. All religions practiced in India support organ and tissue donation and consider it a noble act because it is life-saving and life-transforming.

### Is any compensation or payment made to the donor family?

No. The donation of organs and tissues is an altruistic act and hence no monetary compensation can be made. However, once consent is given for organ and tissue donation the donor family is not charged for the tests that follow and any incidental expenditure, including maintenance of the donor in the ICU until retrieval takes place.

Since the human body is not a commodity, it cannot be bought or sold. The buying or selling of organs is a crime under THOTA, 1994. However, processing fees may be charged for tissues at the time of distribution.

### How can one become an organ and/or tissue donor?

After death your body becomes the property of your legal next-of-kin, and the ultimate decision to donate your organs and tissues remains with them even if you have signed a pledge form. It is therefore important for you to discuss the possibility of such a donation with your family members. Share with them why you believe that organ and tissue donation is consistent with your life values and feels like the right thing to do. Explain how such donations can save lives and help to put a stop to unnecessary pain and despair and improve the quality of life for someone recovering from cancer or incapacitated with burns,

blindness or disease. Knowing how you feel makes it easier for them to reach beyond their own suffering to say that "yes" at the moment of your death. Evidence shows that up to 96% of relatives agree to donation if they already know the individual's wishes, compared to only 58% when the family has not previously discussed the issue.

Sign a donor card and keep it with you at all times. Have at least one family member witness your signature on your organ/tissue donation card.



Donor forms and cards are available at the following addresses:

### Regional cum State Organ and Tissue Transplant Organisation (ROTTA-SOTTO)

K.E.M. Hospital & G.S. Medical College,  
New Building, 7<sup>th</sup> Floor, Acharya Donde Road,  
Parel, Mumbai, 400012, Maharashtra.  
Email : [rottosotto.mumbai@gmail.com](mailto:rottosotto.mumbai@gmail.com)  
Telephone :  
+91 022 24107738 / 24107739, +91 7021932447

### National Organ and Tissue Transplant Organisation (NOTTO)

Website: <http://www.notto.gov.in>  
NOTTO Toll free helpline: 1800114770