

# Libyan International Medical University Faculty of Pharmacy



# Transplantation



By: Farag Gandra 2603 and Heba Adel 2409

### **ILOS**

- Define a transplant.
- Identify the organs and tissues that can be donated
- Describe types of transplantation
- Describe the types of transplantation rejection.
- Identify who can donate.

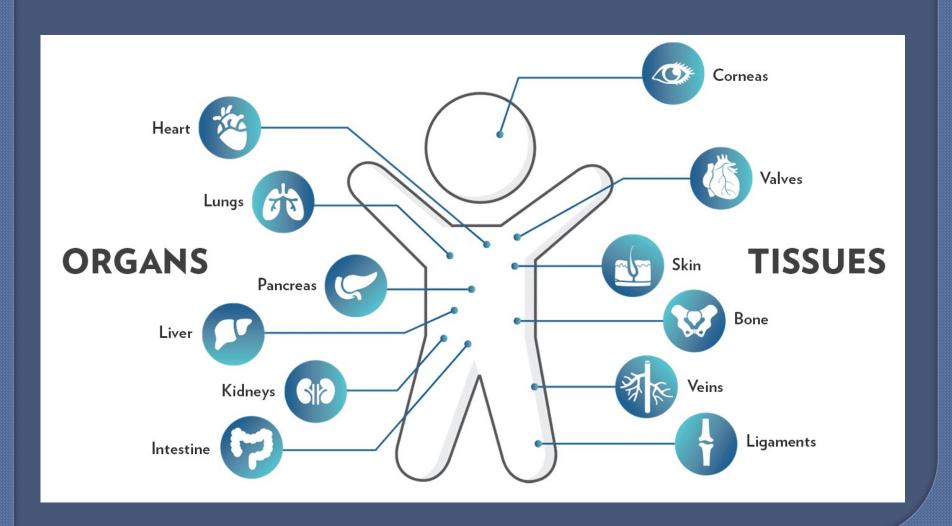


## Define transplantation

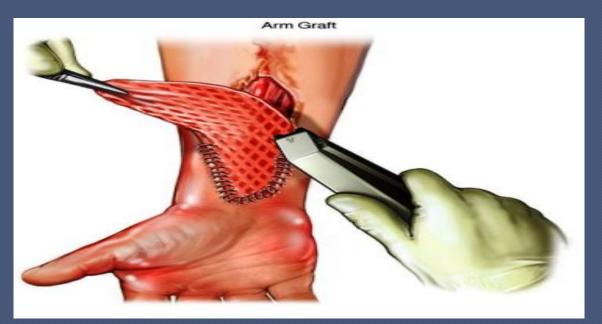
A transplant is an organ, tissue or a group of cells removed from one person (the donor) and surgically transplanted into another person (the recipient or host) or moved from one site to another site in the same person.



# What organ and tissues can be donated



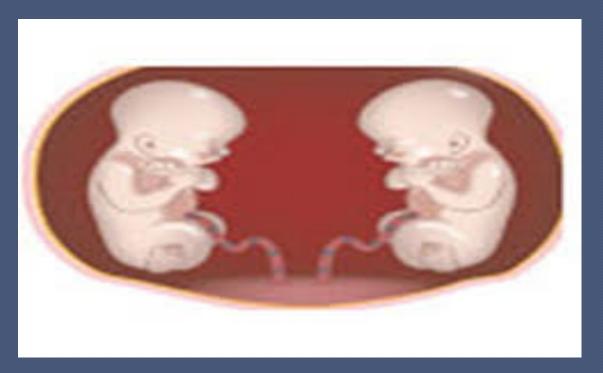
**1. Autograft**: Tissue transplanted from one part of the body to another in the same individual. Also known as an autotransplant. Ex: skin graft



2. Allograft: Transplants from other people, A transplant between two people who are not genetically identical is called an allotransplant and the process is called allotransplantation. Ex: kidney



3. Isograft: It is tissue transferred between genetically identical individuals.

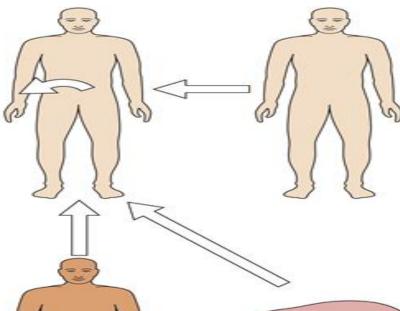


**4. Xenograft :** is the process of transferring tissues or organs from one species into anther.



#### autograft

from one part of the body to another (e.g. trunk to arm)

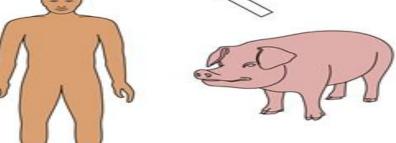


#### isograft

between genetically identical individuals (e.g. monozygotic twins, or within an inbred strain)

#### allograft

between different members of the same species (e.g. Mr Smith to Mr Jones)



#### xenograft

between members of different species (e.g. pig to human)

# Types of rejection

### 1. hyperacute rejection:

5-10 minutes after transplantation occur such type of rejection Accompanied with it HI (humeral immunity) macrophages, dendritic cells, complement & NKCs (natural killer cells) play important role in it.

### 2. acute rejection:

15-30 days after operation CMI (cell mediated immunity) play important role in such type such as T helper cells and T cytotoxic cells.

# Types of rejection

### 3.chronic rejection:

Extended from months to years and both CMI and HI acts well here.

### Who can donate?

### Who Can Sign Up as a Donor?

Because so few people who sign up can actually become donors, we hope everyone will register, so we can save more lives. Here are guidelines about registration.

### Who can donate?

Over 18: All people age 18 and older can register to be an organ, eye, and tissue donor. You can choose what you wish to donate, and you can change your status at any time.

### Who can donate?

Under 18: In many states, people younger than 18 can also register, although their families will have the final say if the occasion arises for donation before they turn 18.

### **Summary**

- ❖ A transplant is an organ or tissue removed from one person and surgically transplanted into another person or moved from one site to another site in the same person
- Types of transplantation is autograft, isograft, allograft and xenograft
- Types of rejection is hyperacute rejection, acute rejection and chronic rejection
- Few people who sign up can actually become donors, under 18 and over 18



Thank you listening 0

### Reference

IMMUNOLOGY FOR PHARMACY, DENNIS K. FLAHERTY

https://www.immunology.org/policy-and-public-affairs/briefings-and-position statements/transplant-immunology

https://www.google.com/search?q=What+organ+and+tissues+can+be+donate

https://medlineplus.gov/ency/article/000815.htm

https://www.organdonor.gov/about/donors.html#:~:text=Over%2018.,your%20 status%20at%20any%20time.