



Understanding Organ and Tissue Donation and Transplantation

The Process of Organ and Tissue Donation to Transplantation

- 1 An important decision
- 2 The anatomy of organ donation
- 3 Living and deceased donation
- 4 The organ matching and donation process
- 5 The anatomy of tissue donation
- 6 The tissue donation process

The Process of Organ and Tissue Donation to Transplantation



1 An important decision

You have an important decision to make...

- In 2017, Illinois passed the Drive for Life Act.
- The Drive for Life Act allows 16- and 17- year-olds to make their own decision about registering to be an organ and tissue donor on the Illinois Donor Registry.
- Understanding the process of and the need for organ and tissue donors will help teens make an educated decision.



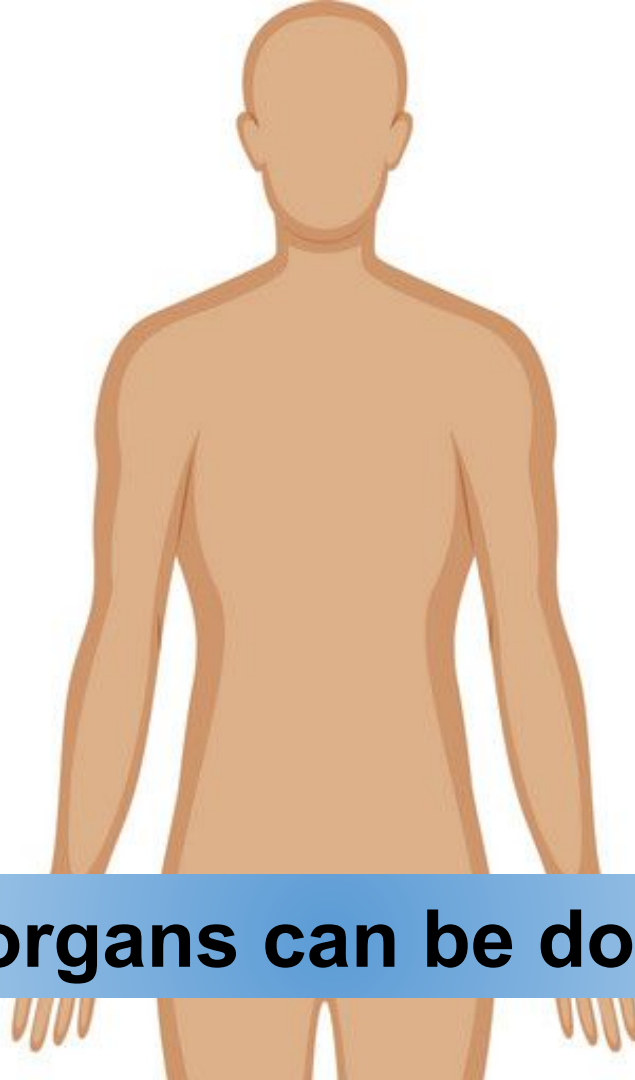
Why is registering to be an organ and tissue donor so important?

- One organ donor can save up to 8 lives
- One tissue donor can heal up to 75 people
- Only 3 in every 1000 people die in a way that they can donate their organs
- Over 100,000 people are waiting in the U.S. for a life-saving organ transplant
- Another person is added to the waiting list every 10 minutes
- 17 people die each day waiting

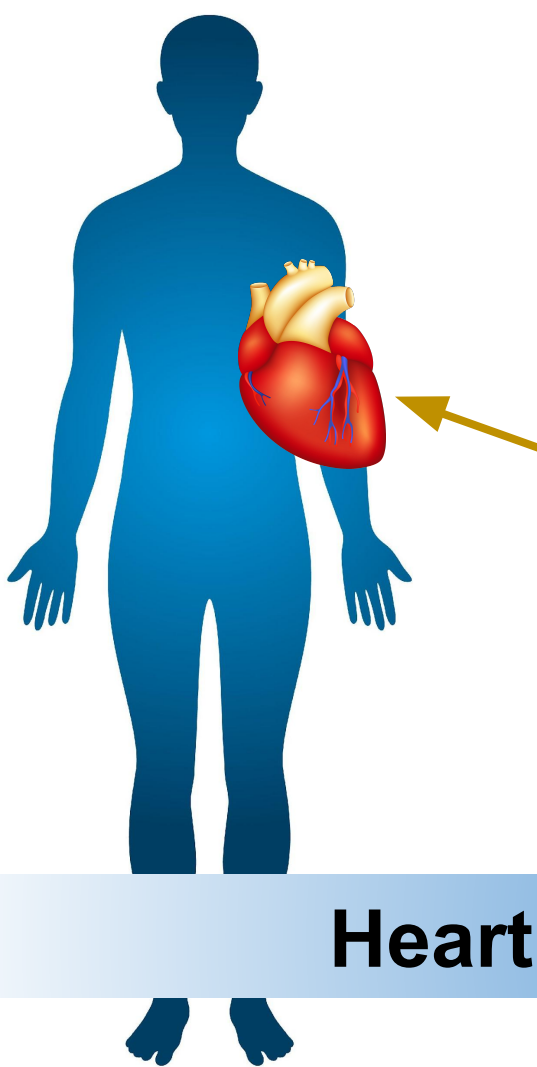


The Process of Organ and Tissue Donation to Transplantation

2 The anatomy of organ donation

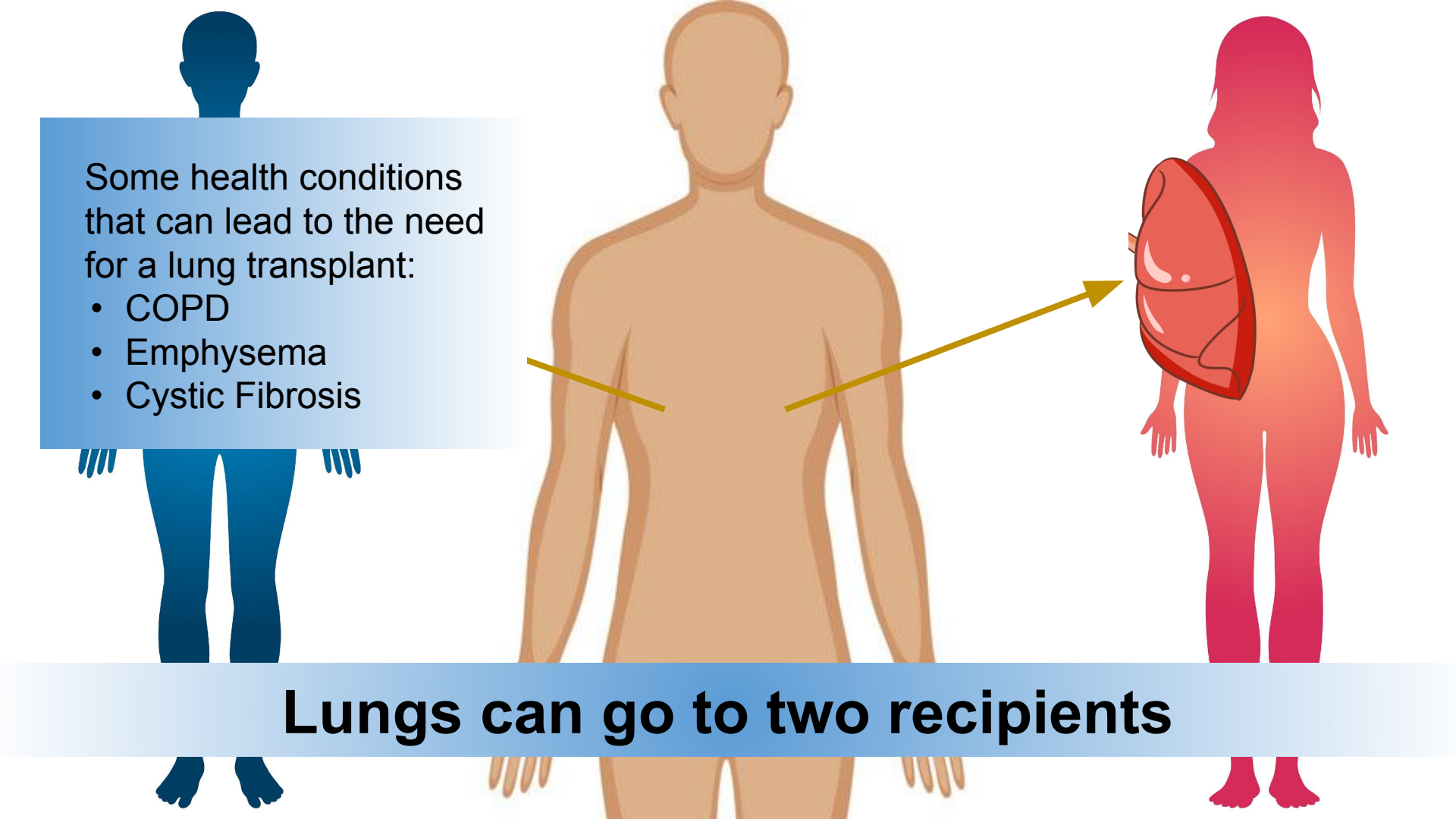


What organs can be donated?



- Some health conditions that can lead to the need for a heart transplant:
- Congenital heart defect
 - Congenital heart disease

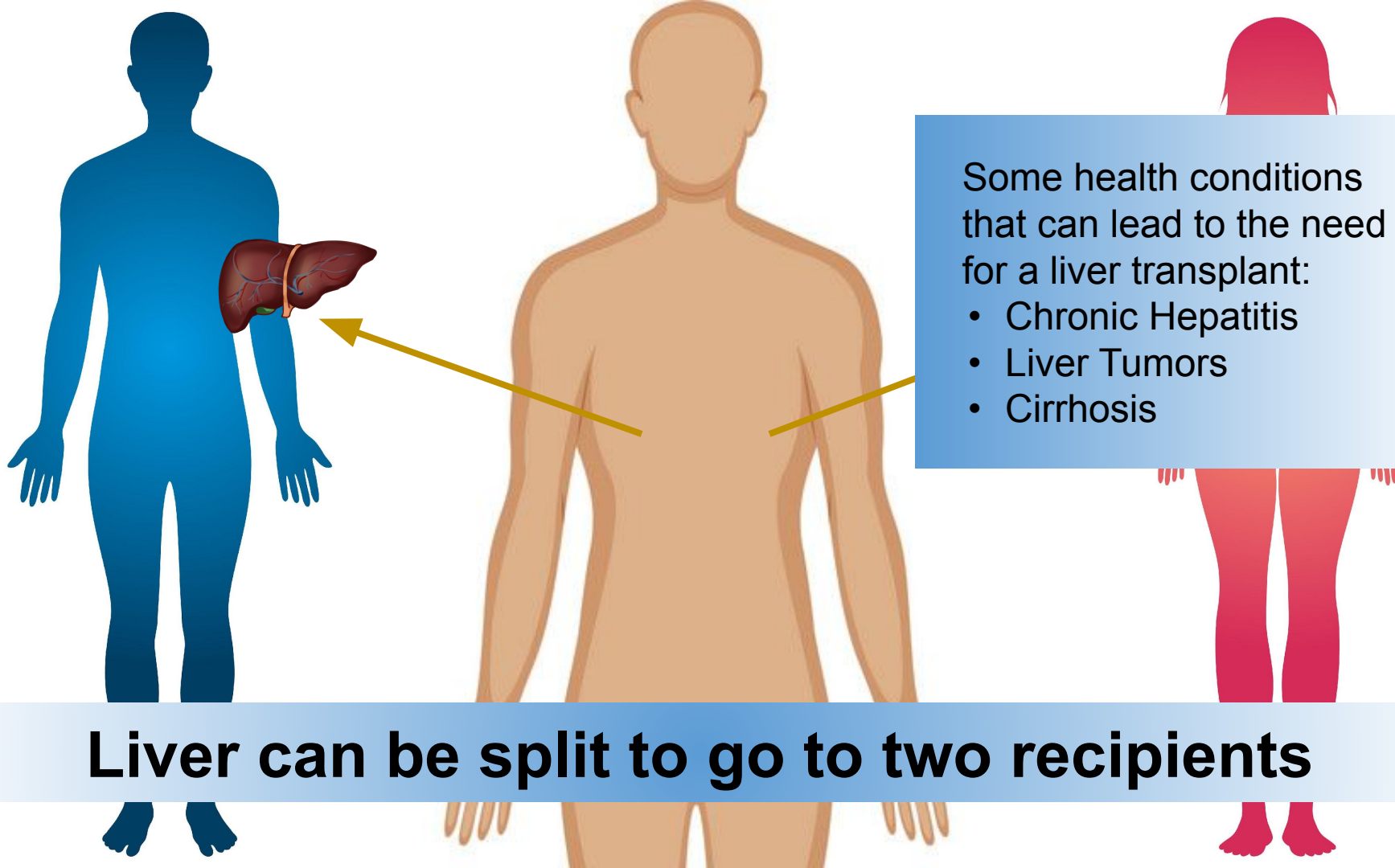
Heart can go to one recipient

The diagram illustrates lung transplantation. On the left, a blue silhouette of a person is partially obscured by a light blue text box. In the center, a tan silhouette of a person's torso is shown with two yellow arrows pointing from the chest area towards the right. On the right, a pink silhouette of a person is shown with a large, reddish, lobed lung structure positioned over their chest. A yellow arrow points from the lung structure towards the tan silhouette's chest, indicating the direction of the transplant.

Some health conditions that can lead to the need for a lung transplant:

- COPD
- Emphysema
- Cystic Fibrosis

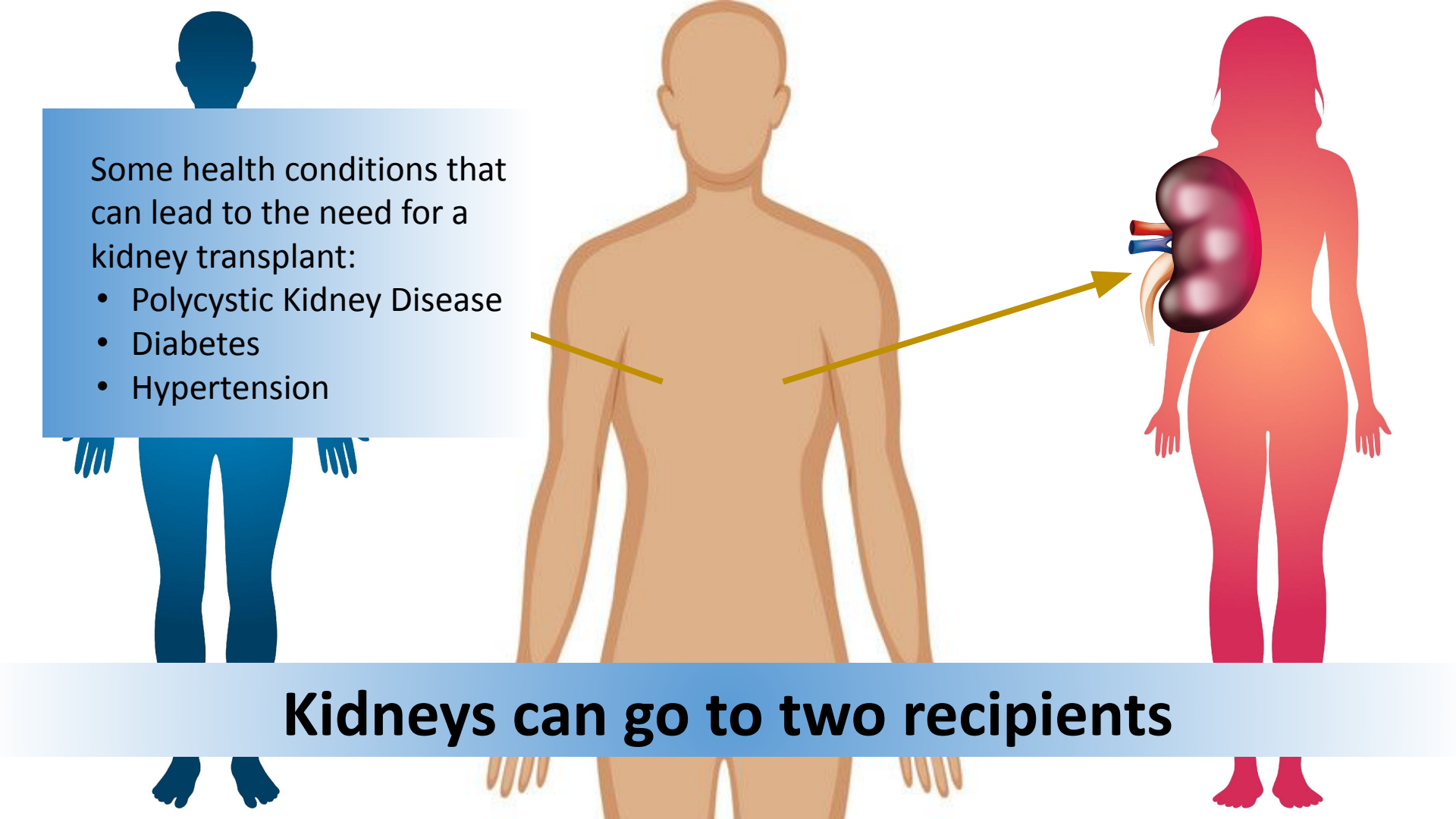
Lungs can go to two recipients



Some health conditions that can lead to the need for a liver transplant:

- Chronic Hepatitis
- Liver Tumors
- Cirrhosis

Liver can be split to go to two recipients

The diagram features three human silhouettes. On the left is a dark blue silhouette of a person. In the center is a light brown silhouette of a person. On the right is a pink-to-red gradient silhouette of a person. A kidney is shown being transplanted into the pink silhouette. Two yellow arrows originate from the chest area of the brown silhouette and point towards the kidney. A blue box is positioned behind the blue silhouette, containing text and a list of health conditions.

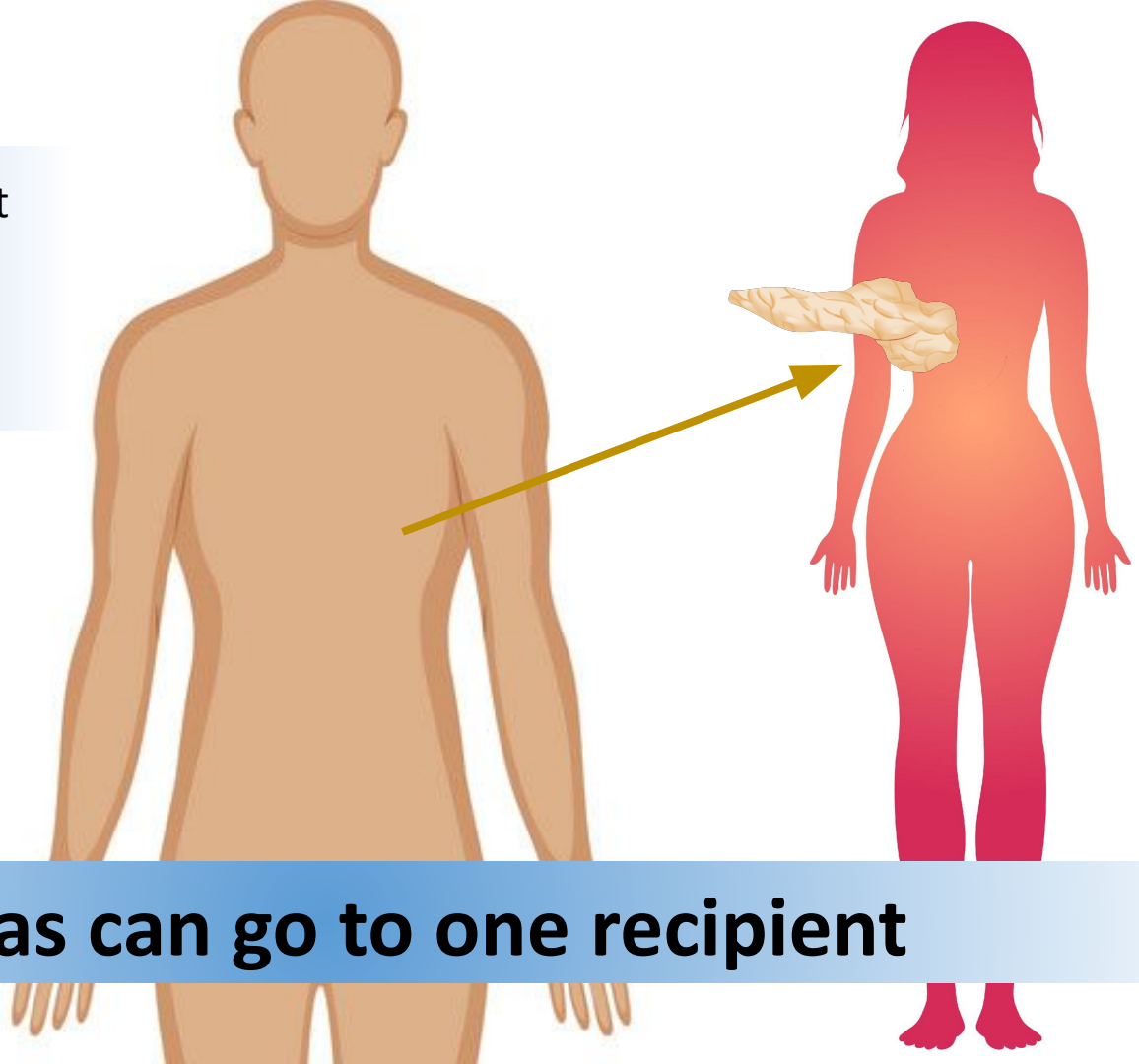
Some health conditions that can lead to the need for a kidney transplant:

- Polycystic Kidney Disease
- Diabetes
- Hypertension

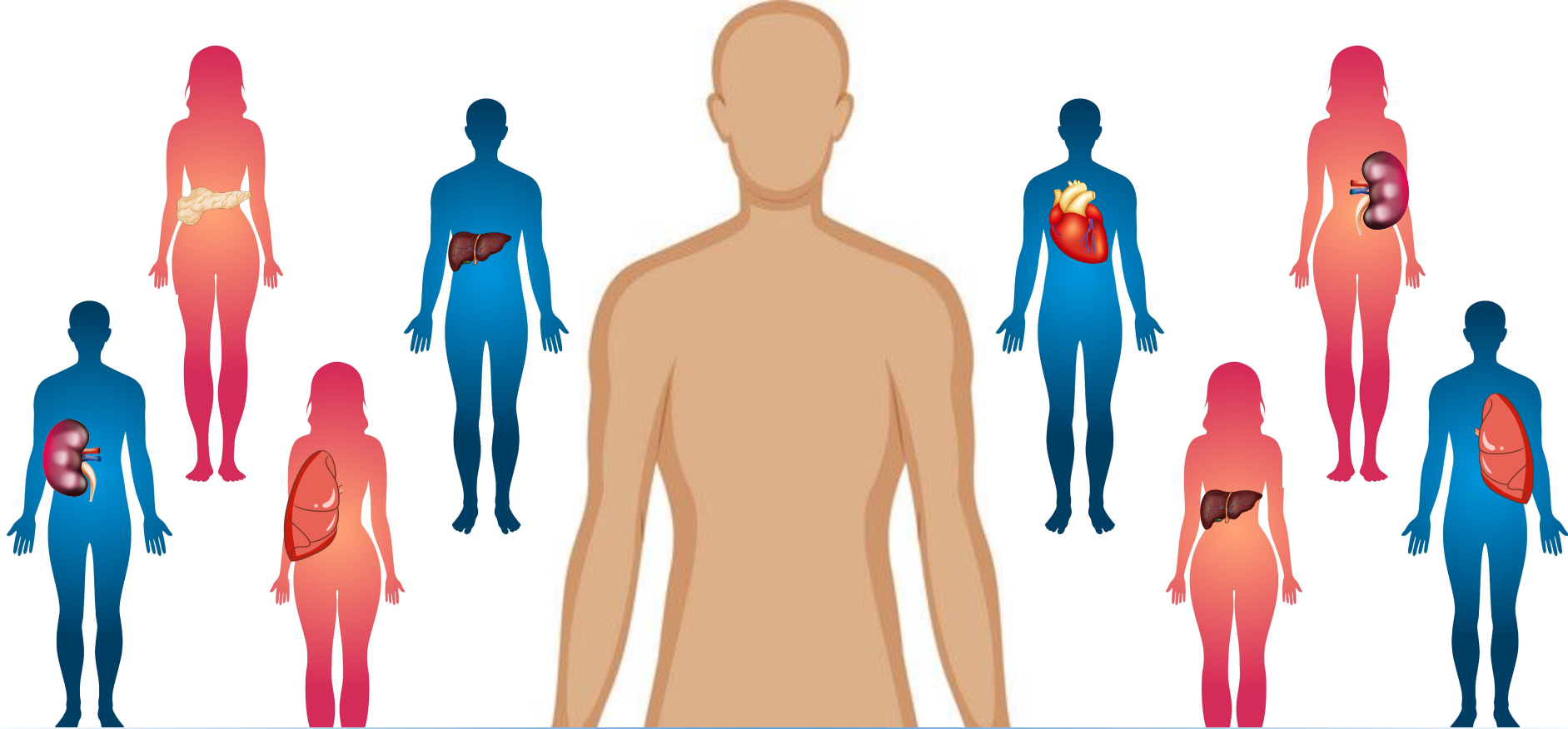
Kidneys can go to two recipients

Main health condition that can lead to the need for a pancreas transplant:

- Type 1 Diabetes



Pancreas can go to one recipient



One donor can save up to eight lives!

Hear from
Amber,
a heart
transplant
recipient



Video Courtesy of the United Network for Organ Sharing (UNOS) www.unos.org

The Process of Organ and Tissue Donation to Transplantation



3 Living and deceased donation

Living Donation

According to the Mayo Clinic, “A living-donor transplant is a surgical procedure to remove an organ or portion of an organ from a living person and place it in another person whose organ is no longer functioning properly.”

A Living Donor can give

- One kidney
- One lobe of their liver
- One lobe of their lung or one lung
- Part of their pancreas or intestines

Benefits of Living Donation

- Eliminates the wait for a deceased donor organ
- Fewer complications
- Longer survival of organ



Deceased Donation

Donation is not even a consideration until doctors have done everything they could to save their patient, who typically has come to the hospital after experiencing an illness or accident.

Once doctors determine that the patient's life most likely cannot be saved, they are put on mechanical support to keep blood flowing to organs so further testing can be done.

After irreversible death has been determined, the hospital contacts the Organ Procurement Organization (OPO) for that region. The OPO checks to see if the patient is a registered donor, and if they are not registered, or if they are a minor, the OPO approaches the family to discuss the opportunity for donation.



Source: U.S. Health Resources & Services Administration

The Process of Organ and Tissue Donation to Transplantation



4 The organ matching and donation process



The Organ Procurement and Transplantation Network (OPTN) is a national organization that has policies and processes that regulate how deceased donor organs are matched and allocated to waiting patients.

Though some of the following matching criteria are more important for certain organs than others, organs are matched based on these common factors:

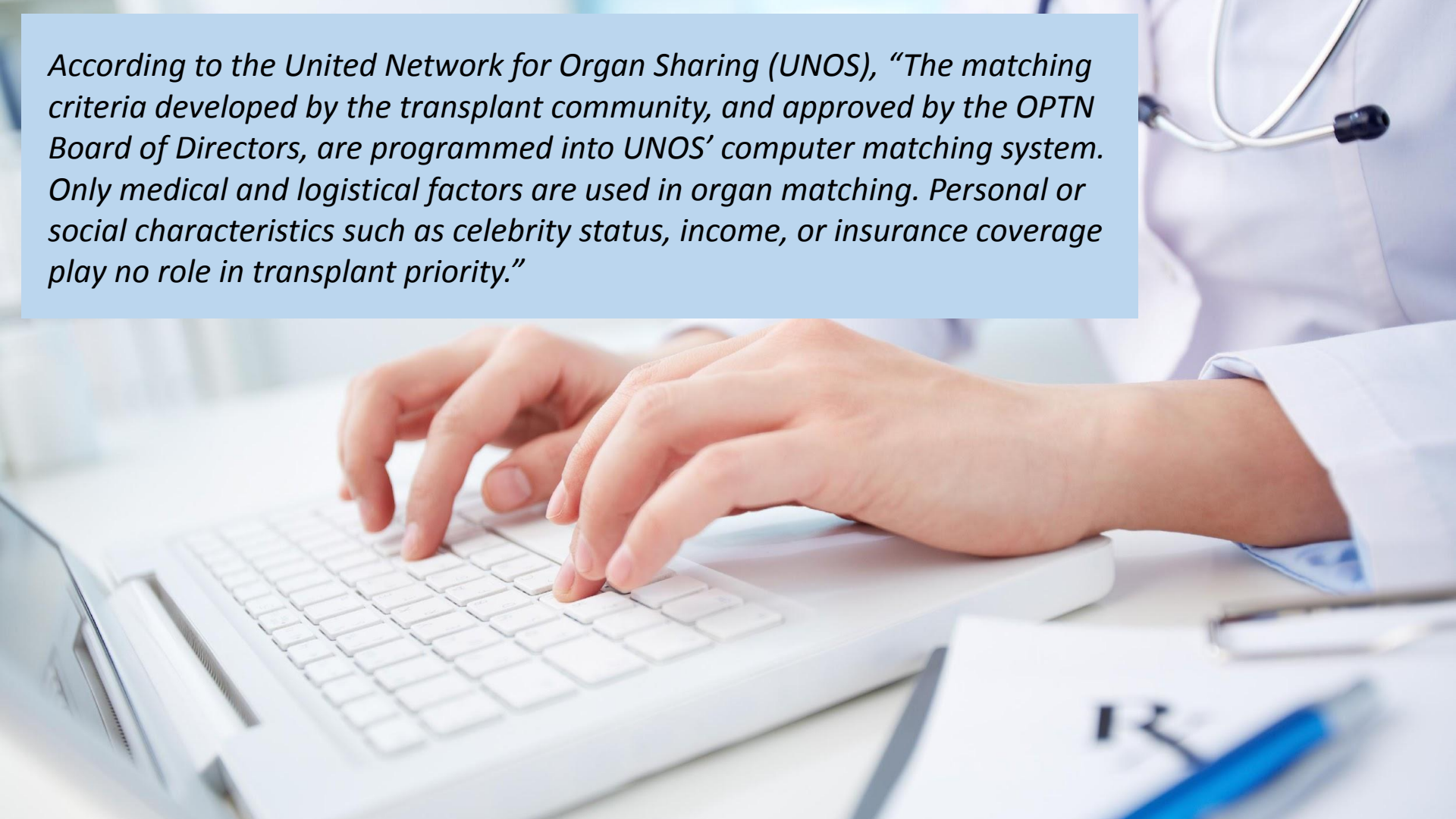
OPO (Donor) Factors:

- Blood type
- Body size
- Organ quality

Transplant (Recipient) Center Factors:

- Severity of patient's medical condition
- Distance between donor and patient
- How long the patient has been on waiting list
- Patient availability for transplantation

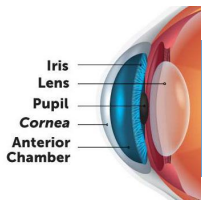
According to the United Network for Organ Sharing (UNOS), “The matching criteria developed by the transplant community, and approved by the OPTN Board of Directors, are programmed into UNOS’ computer matching system. Only medical and logistical factors are used in organ matching. Personal or social characteristics such as celebrity status, income, or insurance coverage play no role in transplant priority.”





The Process of Organ and Tissue Donation to Transplantation

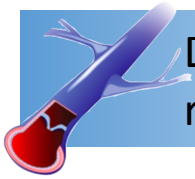
5 The anatomy of tissue donation



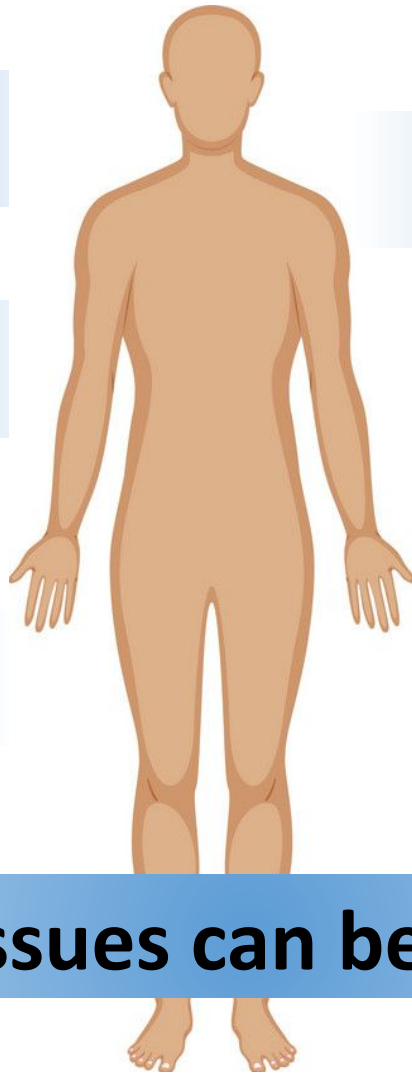
Donated corneas
restore sight



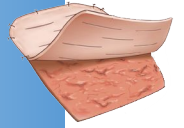
Donated heart valves
repair cardiac defects



Donated veins
re-establish circulation



Donated skin heals
severe burns



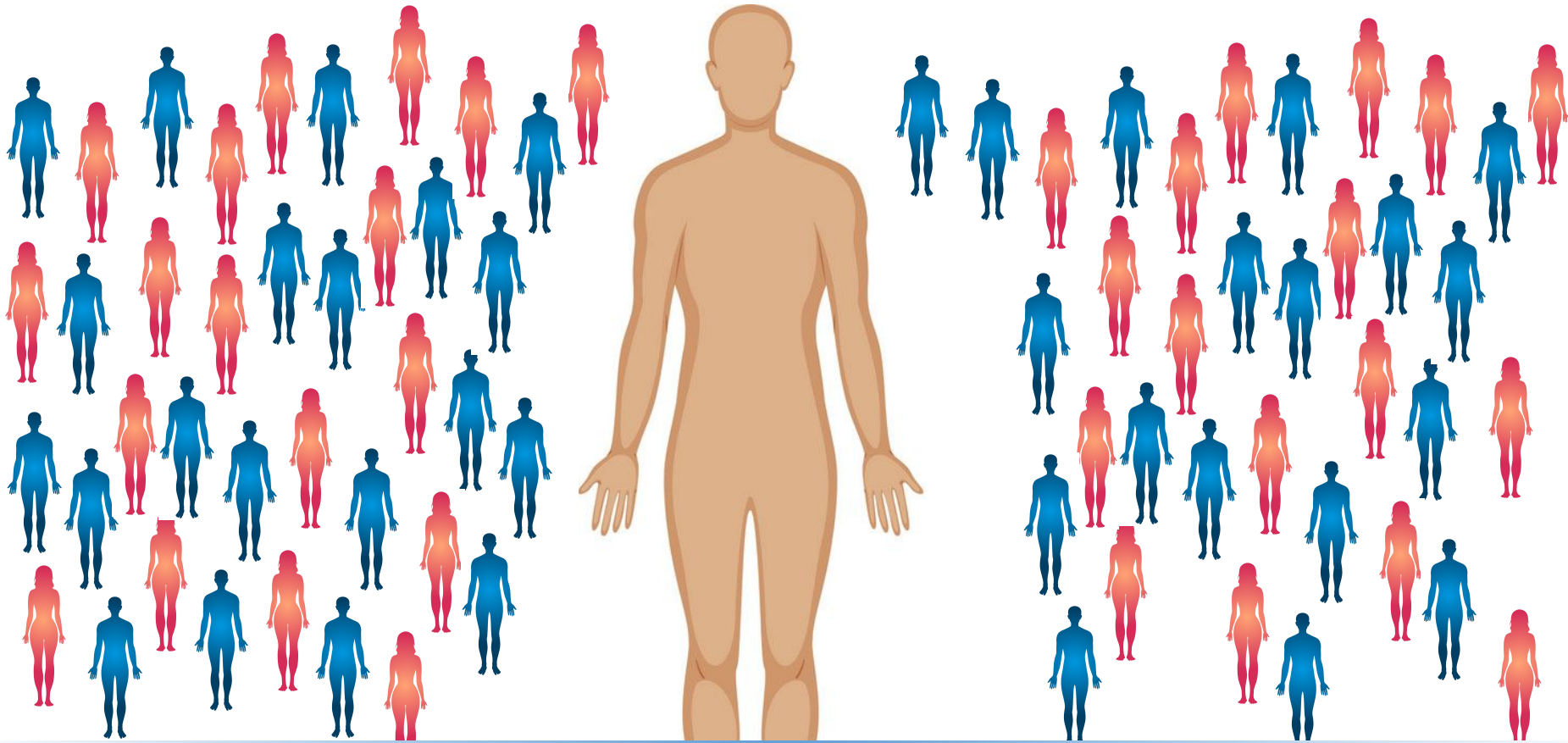
Donated tendons, ligaments
and cartilage rebuild joints
and treat injuries



Donated bones help
avoid amputations



What tissues can be donated?



One tissue donor can heal over 75 people!

Hear from
Leslie,
a cornea
transplant
recipient



I'm feeling happy. And I say



The Process of Organ and Tissue Donation to Transplantation

6 The tissue donation process

Who can be a
tissue donor?

Athletes are Often Tissue Recipients



If a deceased person cannot be an organ donor, or after the organ procurement surgery has taken place, they can become a tissue donor, donating parts of their body for use in transplant procedures that can dramatically improve a recipient's quality of life.

Age has no impact on tissue donation, as long as the donor is determined to be medically suitable at the time of death. People over 100 years old have become tissue donors!

Athletes are Often Tissue Recipients



Athletes are Often Tissue Recipients



How is tissue donated?



Athletes are Often Tissue Recipients

Tissue procurement can be done within 24-hours of the donor's death, and tissues can be stored for longer periods of time—sometimes years, so they are available when a medical professional needs them for a patient.



Athletes are Often Tissue Recipients



Who needs a
tissue transplant?



Athletes are Often Tissue Recipients



Over 2.5 million tissue transplant surgeries are performed each year, and tissue does not need to be matched like organs do. Almost anyone could find themselves in need of a tissue donation at some point in their life.



Hear from
Kasey,
a tissue
transplant
recipient



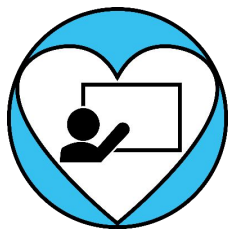
Video Courtesy of UNOS (United Network for Organ Sharing) www.unos.org



Now It's Up to You to Decide:

Organ Donation Registration and Conversation

- You will be asked if you want to register to be a Donor.
- This is an important decision that can save lives...make it an informed one.
- Don't believe the myths you hear from others or on social media—ask questions of professionals and people you trust. Then make your decision based on facts.
- Once you have made your decision, have a conversation with your family to let them know what you want, should the unthinkable happen. Your family may not want to talk about this, but it is an important conversation to have.



TeachLIFE

Organ & Tissue Donation Education Program

Thank you to our program contributors



National Kidney Foundation®
of Illinois



Saint Xavier
UNIVERSITY

