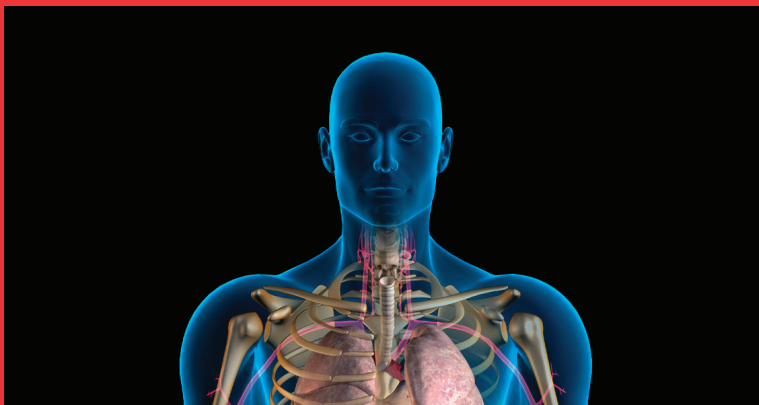




**THE FACTS ABOUT  
ORGAN, EYE & TISSUE  
DONATION**

SHELTERED INSTRUCTION  
WORKBOOK

# *NOTES*



# TRANSPLANTATION SCIENCE

THE FACTS ABOUT  
ORGAN, EYE & TISSUE  
DONATION



# IN THE U.S.

## THE NEED IS GREAT

MORE THAN  
**7,000**  
people die each year in the U.S. due to a lack of available organs for transplant

Nationwide...  
NEARLY  
**115,000**  
are awaiting a lifesaving organ transplant



A new name is added to the national transplant waiting list every 10 minutes...



...that's 52,500 patients each year



It would take 1½ stadiums the size of Sports Authority Field at Mile High to seat them all

**12%** of patients are in need of a liver transplant



**84%** of all patients waiting are in need of a kidney. The average wait time is nearly 2.5 years



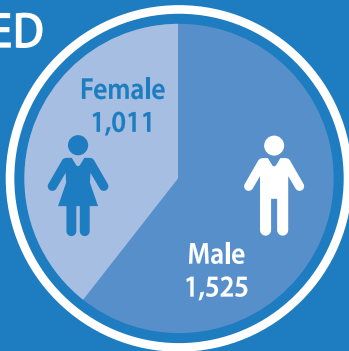
# IN COLORADO & WYOMING



**2,000**  
are waiting for  
lifesaving organ  
transplants

**Over 90%**  
of Colorado & Wyoming  
families say  
**DONATION IS IMPORTANT**

## THOSE IN NEED



**60%**  
of Wyomingites

**69%**  
of Coloradans

are registered  
organ, eye and  
tissue donors

# THE LIFESAVING IMPACT OF ORGAN, EYE & TISSUE DONATION



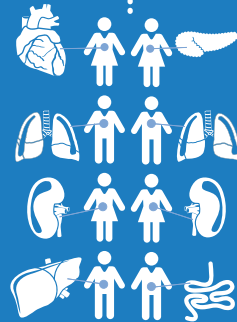
A single donor can...

save up to  
**8** lives  
through organ  
donation

save or  
heal more than  
**75** lives  
through tissue  
donation



On average, **400 lives** are  
saved each year  
thanks to organ donors from  
Colorado and Wyoming



Approximately **100,000 lives** are  
saved or healed each year  
thanks to local CO and WY tissue donors

# STATION 1

## ORGANS



### FACTOIDS

**Organ donation** is the process of one person giving an organ, or part of an organ, to another person who needs it to save their life.

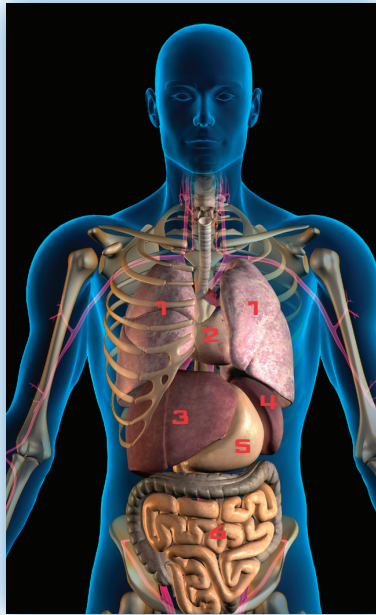
**Transplantation** is the process of moving the organ from the donor to the sick person.

- Most organs (60%) are donated by a **deceased donor**. A deceased donor is someone who has died.
- 40% of organs are donated by a living donor.

Nearly **120,000** people are waiting for a lifesaving organ transplant in the United States. More than **2,500** people are on the waiting list in Colorado and Wyoming.

Every year, about **30,000** people receive lifesaving organ transplants in the United States.

# ORGAN DONATION



## SIX TRANSPLANTABLE ORGANS

### 1. Lungs

- Used for breathing – sends **oxygen** to the blood and cleans out carbon dioxide
- People have two lungs

### 2. Heart

- **Pumps** blood to all body systems

### 3. Liver

- Regulates energy
- Makes proteins and bile
- Cleans the blood
- The biggest internal organ

### 4. Kidneys (you can't see them in the picture)

- Clean the blood and make it into urine
- Produce important hormones
- People have two kidneys

### 5. Pancreas

- Makes enzymes needed for digestion
- Controls blood sugar with **insulin**

### 6. Small Intestine

- **Absorbs** water and nutrients during digestion



# LIVING DONATION

*Some organs can be donated by a healthy, living person.*

## WHAT ORGANS CAN BE DONATED WHILE LIVING?

- Whole organ: kidney
- Part of an organ: lung, liver, pancreas, and small intestine

## WHO CAN BE A LIVING DONOR?

- Living donors can donate to a family member or to people who are not related to them

## LIVING DONORS ARE:

- Between ages 18-60 years old
- Mentally and physically healthy
- Without any major illness

## WHAT HAPPENS AFTER LIVING DONATION?

- Kidney: the donor's remaining kidney gets bigger and **functions** normally
- Liver: the organ will grow in both the donor and the recipient and **function** normally
- Lungs: the organ does not get bigger; donors are okay with **less function**
- Recovery from surgery is short - donors' lives are normal after 2-6 weeks

**functions** = (verb) works    **less function** = (noun) an action or activity

# STATION 1 ACTIVITIES

## 6 TRANSPLANTABLE ORGANS

Identify each of the six transplantable organs.

### DIRECTIONS

1. LOOK at page 6 and read about the 6 transplantable organs.
2. LOOK at the organs and models at this station.
3. MATCH the name of the organ with its function.
4. WRITE the letter on the correct line.

A. Small Intestine B. Liver C. Lungs D. Heart E. Pancreas F. Kidneys

\_\_\_ These clean the blood and turn it into **urine**. We have two of them.

\_\_\_ This **cleans** the blood of poisons and toxins and also makes bile. It is the largest internal organ in the body.

\_\_\_ These bring **oxygen** into the blood and remove carbon dioxide. We have two of these.

\_\_\_ This **pumps** blood to all parts of the body.

\_\_\_ This small organ makes digestive enzymes and **insulin**, which keeps blood sugar at the correct levels.

\_\_\_ This is responsible for **absorbing** nutrients from digested food.

# STATION 1 ACTIVITIES

## LIVING DONATION

Identify the organs you can donate while still living.

### DIRECTIONS

1. **TURN** to page 5 and read about living donation.
2. **WRITE** the answers on the correct line.

It is possible to donate one whole \_\_\_\_\_ and still live normally.

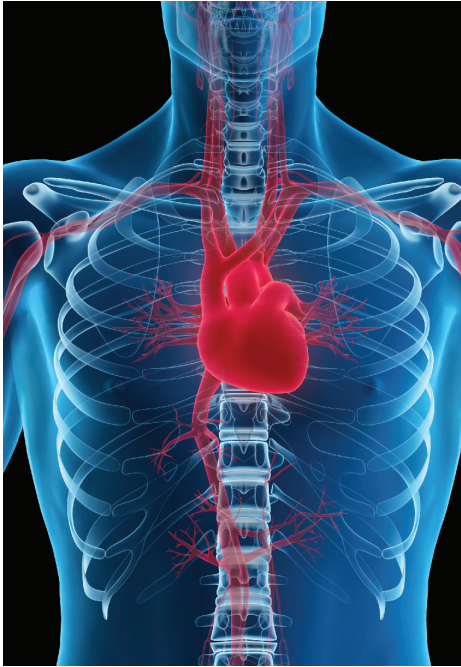
Why is this possible? \_\_\_\_\_

You can donate a part of which 4 organs as a living donor?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

# STATION 2

## HEART



A heart must be transplanted into the recipient within approximately four to six hours after recovery.

**YOUR HEART** is about the size of your fist. It pumps blood throughout the body. It is inside your ribcage.

### FACTOIDS

As of 2016, the longest a person has survived with a single heart transplant is 31 years.\*

Average waiting time for a heart transplant is more than 4 months. In some parts of the country, as many as 40% of patients die while waiting.

Failure to take post-transplant medication properly is the third leading cause of transplant failure!

In 2017, 3,244 heart transplants were performed in the USA.

According to the Department of Health & Human Services, as of 2017, 68,398 heart transplants have been performed in the USA.

10

approximately=about

\*Source: Ward, Victoria (2016, February 11). Longest surviving heart transplant patient dies. *The Telegraph*

# THE DONATION PROCESS

**DIAGNOSIS** There are two kinds of death: heart death and brain death.

**REFERRAL** If the patient is brain dead AND meets the criteria, then Donor Alliance (the Organ Procurement Organization for Colorado and Wyoming) is notified as required by federal law. They check if the patient is a registered donor. Then they decide if the organs can be used.

**FAMILY DISCUSSION** If the patient is not a registered donor, the family considers the donation options. If the family gives permission, the donation process begins.

**MEDICAL EVALUATION** First, Donor Alliance does some medical tests to determine care. Once care needs are determined, all procedures and medications necessary to assist with organ function are provided.

## **MATCHING**

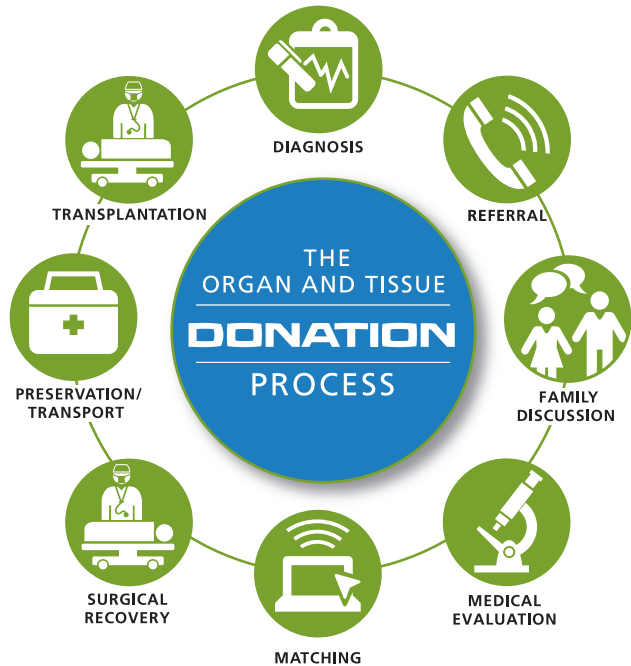
When a deceased organ donor is identified, a donor coordinator enters medical information about the donor including height, weight, blood type, lab values and genetic matching. The system then generates a ranked list of patients who match each organ.

## **SURGICAL RECOVERY**

Once a match has been accepted for all transplantable organs of a donor, organ recovery surgery with surgical transplant teams. Before beginning the surgical process, the family shares a moment of honor with the recovery team.

**PRESERVATION/TRANSPORT** The clock starts ticking and organs have to be treated with great care. Each organ is packed in a specific way. Most organs travel to the hospital of the waiting recipient with the transplant surgeon that will be performing the transplant.

**TRANSPLANTATION** The transplant surgeon makes sure the organ is a good match for the recipient. The recipient takes good care to live a healthy life.



# ORGAN ALLOCATION

There are not enough organ donors, so there is a waiting list for patients to receive transplants.

A patient's place on the waiting list is decided by:

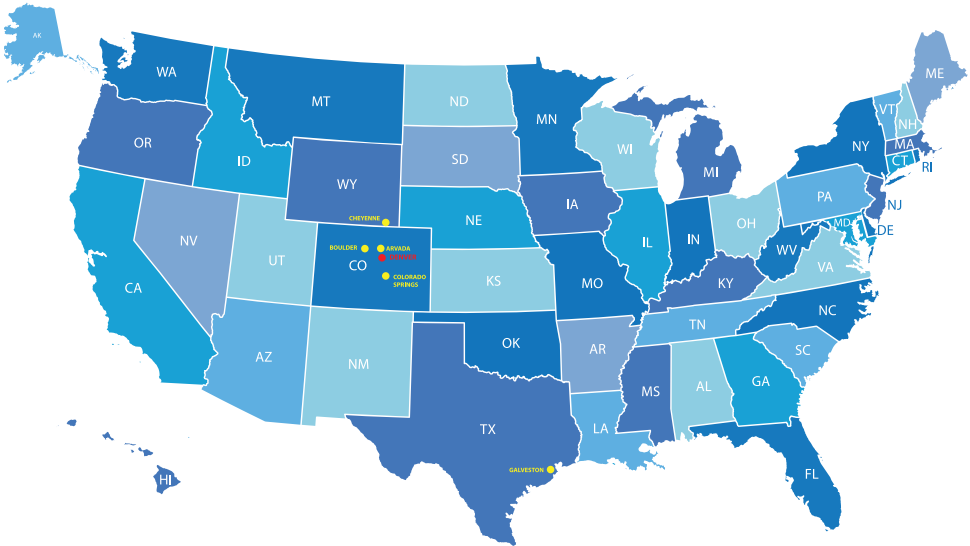
- how sick they are
- blood type
- how long they have been waiting
- potential for a match
- not based on income, racial or social status

There is a limited amount of time in which the organs must be transplanted into the recipients. The heart and lungs must be transplanted more quickly than organs like the kidneys.

## DONOR SERVICE AREAS IN THE UNITED STATES

Distance between the donor and recipient matters when allocating an organ. Please take the following into consideration when considering geographic location:

- Denver to Galveston, TX = 16 hours driving, or 2 hours flight + 1 hour drive
- Cheyenne, WY to Denver = almost 2 hours driving
- Colorado Springs to Denver = 1.5 hours driving
- Boulder to Denver = 30-45 minutes driving



# ORGAN ALLOCATION

## A. Look at the heart specimens at your station.

What do you notice about the heart? Describe it.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## B. Is it an adult's heart or a child's heart? How can you tell?

\_\_\_\_\_

## C. Read the bios on page 15.

1. Who do you think gets the heart? \_\_\_\_\_
2. Why? \_\_\_\_\_

## D. Read the background of the donor on page 14.

What are some details about the donor's heart?

1. How old is he? \_\_\_\_\_
2. How tall is he? \_\_\_\_\_
3. How much does he weigh? \_\_\_\_\_
4. Where does he live? \_\_\_\_\_

## E. Read the criteria about how to decide who gets a heart on page 14.

1. Based on the criteria, who gets the heart? \_\_\_\_\_
2. Why? \_\_\_\_\_
3. Does it match your answer in part C? \_\_\_\_\_



Organ, eye and tissue donation does not become an option until death has been declared.

# STATION 2 ACTIVITIES

## EXERCISE

### DIRECTIONS

Use the information about the organ donor and the criteria below to pick the best match for the donor heart. Base your decision on **science** not emotion.

### BACKGROUND OF DONOR

A young man who lives in Denver, Colorado suffers a brain injury caused by a motorcycle accident. He is pronounced brain dead at a local hospital and his heart is now available for transplant. He is **30 years old, 6 feet tall, approximately 155 pounds**. You have 6 people who are potential matches to the donor. Using the criteria listed below, determine which candidate is best to receive this heart.

### CRITERIA

#### › Height and weight (body size)

Who is the right size?

*REMEMBER: A person's heart is about the size of their closed fist. Imagine how large each of the candidates' hearts would be. The size of the heart they receive must be a close match for a successful transplant. Who is too small or too large for this heart?*

#### › Age

Who is too young or too old?

*REMEMBER: A person is never too old or too young to donate or receive a transplant. Doctors will do their best to match the age of the recipient with the donor.*

#### › Geographic location

Look at the map on page 12. Who is in a state near the donor? A heart must be transplanted within 4-6 hours. Who can get the heart in time?

*REMEMBER: Transplant candidates are often asked to live within a few miles of the hospital while on the waiting list.*

#### › Current state of health

Who is healthy enough to receive the heart?

*REMEMBER: A person who has an active infection would be at high risk for receiving a transplant and be temporarily removed from the waiting list. Once the infection has been successfully treated, the patient can again be listed for transplant.*

#### › Urgency of need Who needs it the most?



The donor and family are treated with the utmost care, respect and dignity throughout the donation process.



# STATION 2 ACTIVITIES

The names and photos of all of the people below have been changed to protect their identities.

## STEVEN

AGE: 14 years old

HEIGHT: 5'8"

WEIGHT: 140 lbs.

LIVES IN: Galveston, TX



### PERSONAL INFORMATION:

- Freshman at Galveston Central High School
- Member of the tennis team and drama club
- Has 10-year-old twin sisters
- Parents both work at Wal-Mart
- Has damaged heart valves from a strep infection when he was little
- **Has been on the Transplant Waiting List for 3 months**

## DEBBIE

AGE: 31 years old

HEIGHT: 5'6"

WEIGHT: 154 lbs.

LIVES IN: Cheyenne, WY



### PERSONAL INFORMATION:

- Mother
- Husband works in sales and travels 3-4 days per week
- Must pay a Home Health Aide to help care for home and children when husband is away
- **Has an enlarged heart**
- Has been on the Transplant Waiting List for 5 months

## DAVID

AGE: 40 years old

HEIGHT: 6'2"

WEIGHT: 220 lbs.

LIVES IN: Denver, CO



### PERSONAL INFORMATION:

- Firefighter for 18 years
- Volunteers in a homeless shelter
- Likes bicycling and snowboarding with his girlfriend
- **He is being treated with antibiotics for a blood infection right now**
- Has been on the Transplant Waiting List for 6½ months

## PETER

AGE: 22 years old

HEIGHT: 5'11"

WEIGHT: 158 lbs.

LIVES IN: Boulder, CO



### PERSONAL INFORMATION:

- Senior at the University of Colorado, Boulder
- After graduation, plans on becoming a counselor for at-risk teens
- Only child
- His heart disease is advancing rapidly
- **Has been placed on the Transplant Waiting List for immediate heart transplant**

## ISABELLA

AGE: 6 months old

HEIGHT: 20"

WEIGHT: 5 lbs. 3 oz.

LIVES IN: Colorado Springs, CO



### PERSONAL INFORMATION:

- Has 2 healthy siblings, ages 5 and 3
- Father, Ed, is stationed at Fort Carson Army Post
- Mother, Candy, works part-time in a dentist office
- **She was born with a heart defect which requires a transplant**
- Has been on the Transplant Waiting List since birth

## SUSAN

AGE: 13 years old

HEIGHT: 5'2"

WEIGHT: 101 lbs.

LIVES IN: Arvada, CO



### PERSONAL INFORMATION:

- Has one healthy sibling, age 9
- Parents have been happily married for 27 years
- Currently a 7th grader at Arvada Central Middle School
- A bacterial infection caused her to be placed on **the Transplant Waiting List for immediate heart transplant**

# 8 FACTS OF ORGAN, EYE & TISSUE DONATION



1

Anyone can register to be an organ, eye and tissue donor, regardless of age, race, or medical history.



2

An individual's donation status does not affect medical care. The first priority of medical professionals is to save lives.



3

Organ, eye and tissue donation does not become an option until death has been declared.



4

All major religions in the United States support donation and view it as a final act of love and generosity.



5

There is no cost to the donor or their family for organ, eye or tissue donation.



6

An open casket funeral is possible for organ, eye, and tissue donors.



7

The donor and family are treated with the utmost care, respect, and dignity throughout the donation process.



8

A "living donor" can also save lives by donating a kidney or a part of the liver, intestine, lung, or pancreas.

# STATION 3

## THE EYE

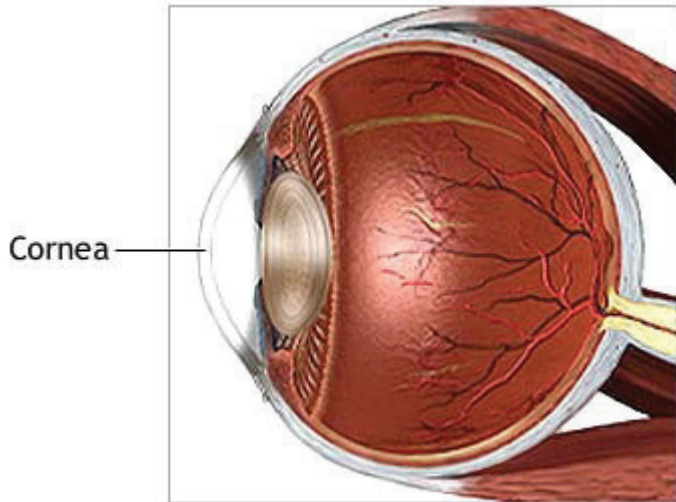
### CORNEA

#### WHAT IS THE CORNEA?

The cornea is the clear front window of the eye. The cornea allows rays of light to pass through and be focused on the retina. The cornea is as wide and thick as a dime and has a curved shape.

Many eye conditions affect the cornea and may damage it. Injuries, infection, **inherited** conditions or aging may cause problems that make it harder for a person to see clearly.

Sometimes the vision can be improved with glasses, a contact lens or medications. When those don't work, a corneal transplant may be needed.

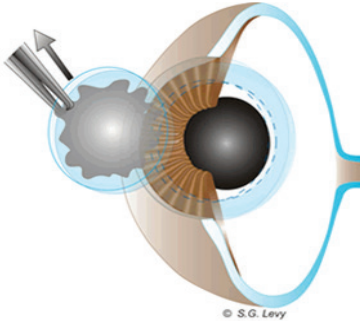
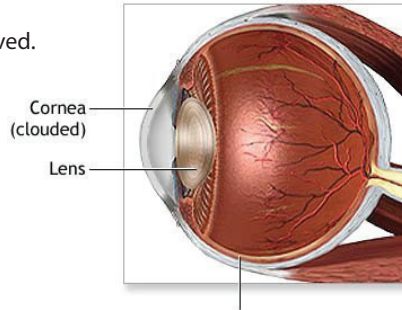


**inherited**=received from a family member

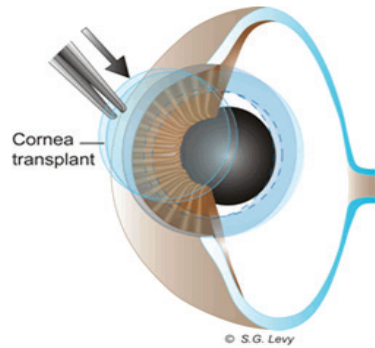
# CORNEA

## WHAT IS A CORNEAL TRANSPLANT?

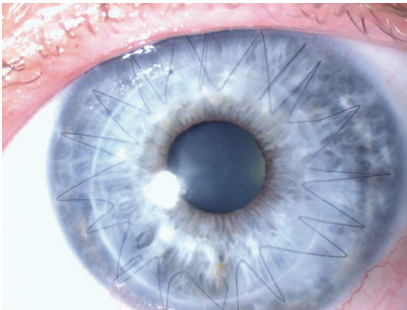
1. The damaged cornea is removed.



2. It is replaced with a healthy cornea from a deceased donor.



3. The new cornea is held in place with very small stitches.



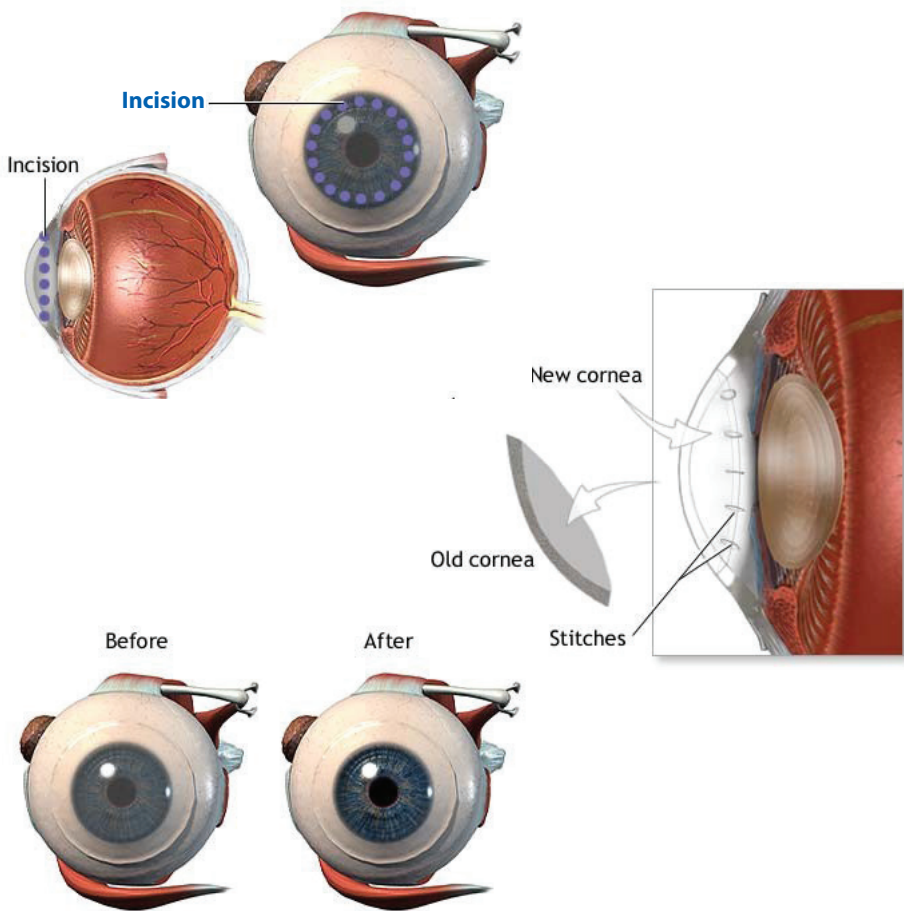
4. After a corneal transplant, it may take some time for the vision to improve. The person may need to wear glasses or contact lenses in order to see well.

# CORNEA

## WHO NEEDS A CORNEAL TRANSPLANT?

Any condition that causes permanent **clouding** or changes to the shape of the cornea may result in poor vision and require a transplant.

Not all people with cornea damage can receive a transplant. Those who can and do have a better quality of life.



**incision**=cut

**clouding**=when you can't see clearly

# SCLERA

Sometimes people may lose an eye because of a **traumatic** injury. At other times, a diseased eye may have to be surgically removed.

For many years, the lost eye was replaced with a glass eye, which could not move. A new procedure uses sclera, or the white part of the eye. This exciting new procedure makes it possible for an **artificial orbital** implant to move naturally so no one can tell it is fake.



*This man had the traditional glass eye to replace his lost eye. Can you tell which eye is the artificial one?*

The donated sclera can be wrapped around a mineral substance in the size and shape of an eye. The eye muscles can then reattach to the sclera so that the eye moves naturally.

**Both of the people below have had one damaged eye replaced by an artificial orbital implant using donated sclera. For each person, can you tell which eye is fake?**



Good eyesight is not a requirement to be an eye donor. Even people who have been blind from birth can restore eyesight in some cases.

# STATION 3 ACTIVITIES

## DIRECTIONS

Match each of the donated corneas on the left with a transplant recipient on the right. Write your answers in the place provided.

Keep these two things in mind:

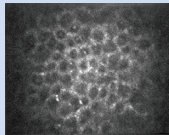
1. Younger patient = higher cell count
2. Graft size of donor must be bigger than or = to the cornea of the recipient

## DONORS

A. Donor Age: 19 years  
Cell count: 3,198 cells/mm<sup>2</sup>  
Graft size: 7.7mm



B. Donor Age: 55 years  
Cell count: 2,250 cells/mm<sup>2</sup>  
Graft size: 8.0mm



C. Donor Age: 40 years  
Cell count: 2,400 cells/mm<sup>2</sup>  
Graft size: 7.0mm



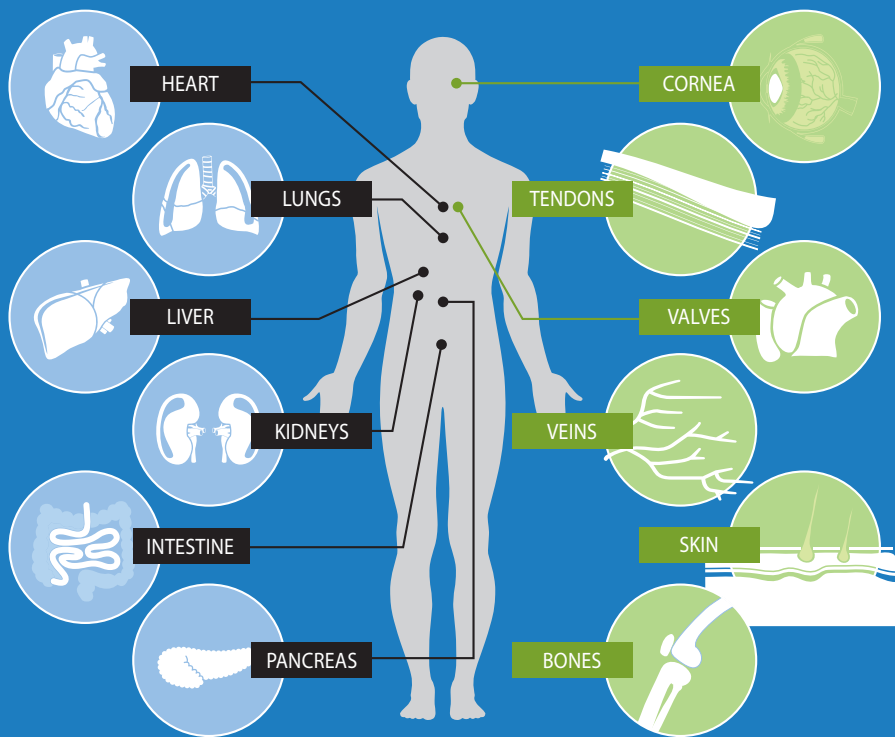
Patient	Which Cornea? (A, B, C)	Why did you match this cornea to this patient?
1. Sally AGE: 3 months Diagnosis: Peter's Anomaly Cornea size: 6.5 mm		
2. Sue AGE: 30 years Diagnosis: Fuch's dystrophy Cornea Size: 7 mm		
3. John AGE: 40 years Diagnosis: scar from old eye injury Cornea size: 7 mm		

# LIFESAVING & HEALING ORGANS & TISSUES

Each of  
these can save  
or heal a life.

## ORGANS

## TISSUES





# STATION 4

## TISSUES

*In addition to organs, some parts of the body like skin, tendons, bones and valves can also be transplanted. This is called tissue donation.*

### 1. Skin

Protects the body from **dehydration**, injury and infection. Transplant used as treatment for burn patients.

### 2. Valves

Open and close to move blood through heart. Transplant replaces damaged heart valves.

### 3. Bone

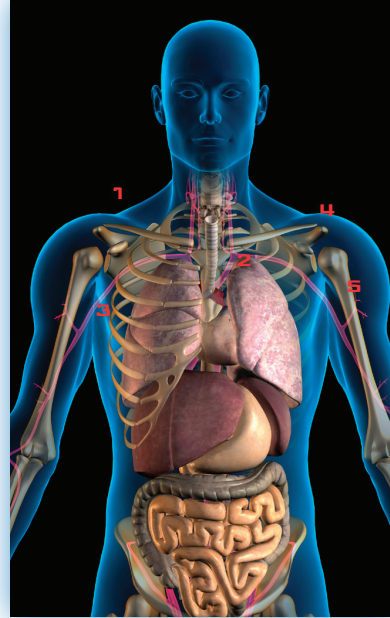
Supports the body and protects vital organs. Transplant used to fix bones in face and mouth, for cancer treatment and prevention of amputation.

### 4. Cartilage / Tendons/ Femoral Nerve

Transplant used to connect bones to bones and muscles in knee or ankle.

### 5. Veins / Blood

Bring blood from organs back to heart. Transplant used for heart surgery to replace damaged arteries.



## TISSUE DONATION

Tissues transplanted from one person to another are called **allografts**. Allograft tissue comes from:

- a registered donor who has died
- a donor who has died, whose family has made the decision to donate their tissue

Approximately 1.5 million allografts are transplanted each year.

- Bone grafts can help people whose bones have become weak from cancer.
- Heart valves can replace damaged heart tissue.
- Skin grafts can save the lives of people who have been burned.
- Tendons and soft tissue can help people lead more active and normal lives.

Some common uses of tissue are to treat trauma, sports and age-related injuries.

**dehydration**=a loss of water/fluids

# STATION 4 ACTIVITIES

**GOAL: Discover and identify each of the transplantable tissues.**

## DIRECTIONS

1. **LOOK** at page 23 in this handbook and read about each of the tissues that can be transplanted.
2. **MATCH** the picture to the description of the tissue.
4. **WRITE** the letter on the correct line.

**A. Skin**



**B. Valves**



**C. Bones**



**D. Tendons**



**E. Veins**



- \_\_\_ This is used as connective tissue in reconstructive surgery.
- \_\_\_ This protects the body from dehydration, injury and infection and is often used for people who have been burned.
- \_\_\_ These move blood through the heart.
- \_\_\_ These support the body and protect vital organs.
- \_\_\_ These bring blood back to the heart.

# STATION 4 ACTIVITIES

## FACTOIDS

- 1 donor = saves & heals more than **75** people
- 1 leg bone = **50** donations
- Donor Alliance has **24 hours** to recover tissue after death.
- There are **1.5 million** tissue grafts performed each year in the United States.
- The earliest records of skin grafts date back to 3000-2500 B.C.E.

1. Look at the skin model. What do you notice are similarities and differences between the normal side and the burned side?

2. Describe each type of burn based on the skin model:

1st degree burn = \_\_\_\_\_

2nd degree burn = \_\_\_\_\_

3rd degree burn = \_\_\_\_\_

3. Name two things that change between 1st degree and 2nd degree burns.

4. Name two things that change between 2nd and 3rd degree burns.

5. Look at the tissue kit and answer with the name and number of the correct sample.

1. Which sample would be used to help fix the spine in the back?

2. Which sample would be used to replace a section of an arm bone?

3. Which sample would be used to fill a hole in your jaw bone?

blister  
red  
pink  
black  
no hair  
skin  
burned

# STATION 4 ACTIVITIES

**GOAL: Determine who will receive each transplantable tissue based on their injury.**

## DIRECTIONS

**1. MATCH the type of allograft with the person who needs it.**

**2. WRITE the letter of the best choice in the line provided.**

**A. Skin**

**B. Bone**

**C. Tendon**

All stories are true.

\_\_\_\_\_ Devin was 12 years old. He was making hot chocolate when he spilled it on his arm. It burned all the skin off, from his thumb to his elbow. Devin was taken to the hospital and had 3rd-degree burns. Which allograft did the doctors use for Devin?



\_\_\_\_\_ H.C. was a soccer player. It had been a long time since he'd played soccer. During a game, he felt something snap below his knee. He knew that his ACL was torn. Which allograft did the doctors use for H.C.?



\_\_\_\_\_ Andy was a tennis player in high school. He was diagnosed with cancer that was making his bone weak. Which allograft will help Andy be cancer free?



# FAMILY DISCUSSION

Donor Alliance, whose mission is to save lives through organ and tissue donation and transplantation, offers Transplantation Science free of charge to middle and high schools throughout Colorado and Wyoming. Please take a moment to discuss this important topic with your student as you work together to complete the family discussion activity. *Results of this activity are used to improve the program; participants will remain anonymous and will not be contacted.*

## DIRECTIONS

1. Take this booklet home and read the questions below with a parent or guardian.
2. Write your answers in the spaces provided.
3. Return this worksheet to your teacher. (The rest of the workbook is yours to keep!)

1. Does anyone in your family know someone who is currently waiting for or has received a lifesaving organ transplant?
  - Yes, we know someone waiting. Which organs?
  - Yes, we know someone who has received. Which organs?
  - No
2. Does anyone in your family know someone who became an organ and/or tissue donor after his/her death?
  - Yes If yes, do you know which organ(s) and/or tissue(s) he/she donated?
  - No
3. If you or someone in your family were ill or injured, would you/he/she consider receiving an organ or tissue transplant? Why or why not?
  - Yes
  - No
4. Is anyone in your family already registered to be an organ and tissue donor? (Hint: check for a heart on his/her driver's license or ID.)
  - Yes Who?
  - No If not, would he/she consider it?
5. From whom would you feel most comfortable receiving information about organ, eye and tissue donation?
  - Doctor/physician
  - Friend or family member
  - Someone who has experienced donation or had a transplant
  - Religious leader
  - Other: \_\_\_\_\_

# FAMILY DISCUSSION

6. Do you believe the following statements to be true or false?

- | TRUE                     | FALSE                    |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Saving lives is the doctor/medical team's number one priority whether or not the individual is a registered organ, eye and tissue donor.   |
| <input type="checkbox"/> | <input type="checkbox"/> | There are no <b>strict</b> minimum or maximum age requirements for organ/tissue donation after death.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Anyone can <b>register</b> to be an organ, eye and tissue donor no matter their age, lifestyle or medical history.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Organ, eye and tissue donation does not cost the donor's family anything.  |
| <input type="checkbox"/> | <input type="checkbox"/> | An individual <b>may</b> be able to donate his or her organs/tissues after death even though they may have past or existing health conditions such as cancer, diabetes or hepatitis. |
| <input type="checkbox"/> | <input type="checkbox"/> | The donor and his/her family are treated with great care and respect throughout the donation process.  |

7. Are you interested in learning more about the following items related to donation?

- How to register to become a donor
- The process of donation for the family
- The need for donation
- Ways to talk to your family about donation
- The general requirements to be able to donate such as age and health
- Your religion's stance on donation

8. Is there anything you would have liked to learn through the Transplantation Science program?

**STUDENT NAME:** \_\_\_\_\_

**SCHOOL:** \_\_\_\_\_

**TEACHER:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**PARENT SIGNATURE:** \_\_\_\_\_

# HOW CAN I HELP?

## Glad you asked...

Take these two simple steps to ensure your wish to become an organ, eye and tissue donor is realized:



Designate your decision. Register to be an organ, eye and tissue donor by saying YES when obtaining your driver permit, driver license or state ID or online:

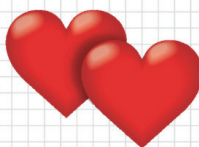
[DonateLifeColorado.org](http://DonateLifeColorado.org) or  
[DonateLifeWyoming.org](http://DonateLifeWyoming.org)



Tell your family and friends about your decision.



In 2018,  
a record 160 organ donors in Colorado  
and Wyoming  
saved 489 lives  
by giving...



268  
Kidneys



98  
Livers



59  
Hearts



52  
Lungs



11  
Pancreas

In 2018...



provided an estimated

126,300

lifesaving & healing  
grafts



to patients suffering from trauma or disease.



**K**

What do you know about organ and tissue donation?

**W**

What do you want to know about organ and tissue donation?

**L**

What did you learn about organ and tissue donation?

# NOTES

# TRANSPLANTATION SCIENCE

MADE POSSIBLE THROUGH DONATIONS TO  
THE EMILY KEYES - JOHN W. BUCKNER  
ORGAN AND TISSUE DONATION AWARENESS FUND  
AT THE DRIVER LICENSE OFFICE

THANK YOU TO THE FOLLOWING ORGANIZATIONS  
FOR THEIR CONTRIBUTION TO THIS PROGRAM:



**THIS BOOKLET BELONGS TO:**

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*If you would like more information about organ, eye and tissue donation  
or have any questions regarding the Transplantation Science program,  
please email [TransplantationScience@donoralliance.org](mailto:TransplantationScience@donoralliance.org)  
or call 303.329.4747.*



*Colorado*

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



*Wyoming*

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



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@donatelifeco / @donatelifewy



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Donate Life Colorado / Donate Life Wyoming



*200 Spruce Street · Suite 200 · Denver CO 80230 · 303 329 4747 PH*

*330 South Center Street · Suite 418 · Casper WY 82601 · 307 577 1700 PH*

*[www.DonorAlliance.org](http://www.DonorAlliance.org) 888 868 4747 TF*

A  ORGANIZATION