



*California*

**DONOR REGISTRY**

# Educator Resource Guide

[www.donateLIFecalifornia.org](http://www.donateLIFecalifornia.org)  
[www.doneVIDAcalifornia.org](http://www.doneVIDAcalifornia.org)

Dedicated to Educating  
Communities about Organ,  
Eye and Tissue Donation



## Why teach about organ, eye and tissue donation?

Each year thousands of California high school students apply for their first driver license or identification (ID) card. When they do, they are presented with the opportunity to join the Donate Life California Organ & Tissue Donor Registry. Many students are unaware of what being a donor means and how they can save lives within their communities by checking “YES!” to donation. Providing information to students prior to going to the California Department of Motor Vehicles (DMV) allows them to make an informed decision.

The subject of organ, eye and tissue donation is intrinsically interesting, easy to understand, and appeals to youthful altruism. Transplantation and donation issues will be included in the health and science frameworks, following passage of Assembly Bill 1967 (Pérez, 2012). Learning the facts about donation and the miracle of transplantation can encourage students to share their decision with their family and friends. By educating our youth in the importance of joining the Donate Life California Registry, we can help narrow the ever-widening gap between the escalating number of transplant candidates on the waiting list and life-saving donations.



CALIFORNIA  
DEPARTMENT OF  
EDUCATION

**TOM TORLAKSON**

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

October 2013

Dear Educators:

I am pleased to share with you this important resource developed by Donate Life California (DLC) as part of their Classroom Education Initiative.

This resource is designed to educate teens on the lifesaving importance of organ and tissue donation. California law requires that health and science frameworks adopted by the State Board of Education in the next submission cycle include information about transplantation and donation as part of the health and science curricula (AB 1967, 2012).

Within these pages, you will find engaging content and helpful lesson plans for students. By checking “Yes” to donation when applying for their first driver license or identification card, teens can potentially save lives within their communities. Since the state of California now requires this question to be answered on all driver license and ID card applications (SB 1395, 2010), I believe it is important to educate our teens so that they may be able to make an informed decision.

To that end, DLC is dedicated to providing accurate, culturally sensitive, and age appropriate information at no cost to schools. DLC provides the following resources:

- A user-friendly educational 11-minute video with three story capsules involving teens – a recipient, donor family member, and transplant candidate
- The “Decision to Donate” video, as well as educator and student resource pages, are available online at <http://www.donatelifecalifornia.org>.
- English and Spanish brochures for students and their families
- DLC-trained speakers are available for classroom presentations and school-wide projects

DLC’s curriculum contains a variety of specialty lesson plans suitable for use in driver’s education, health education, biology, social studies, English, and mathematics classes.

I encourage you to use the Educators Resource Guide and DVD and access more materials online at <http://www.donatelifecalifornia.org> or email [info@donatelifecalifornia.org](mailto:info@donatelifecalifornia.org) for free brochures and other materials. You may also request trained speakers to complement the program by calling 866-797-2366.

Sincerely,

Tom Torlakson

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# About the Donate Life California Organ & Tissue Donor Registry

Prior to 2004, no registry existed for Californians who wished to give consent for organ, eye and tissue donation. In April 2005, California launched an online donor registry, the Donate Life California Organ & Tissue Donor Registry, providing a confidential database which allows Californians to officially record their donation wishes.

In July 2006, the Donate Life California Registry took a giant step forward, launching its partnership with the California Department of Motor Vehicles (DMV), replacing pink dot stickers and donor cards with an electronic database of registered donors.

By checking “YES!” on the DMV driver license/ID card application form, the applicant’s license or ID card is imprinted with a Pink DONOR Dot indicating that the cardholder is a registered organ and tissue donor and that the applicant’s name has been added to the secure, confidential database.

For the first time since its inception more than 30 years ago, the pink dot now represents a legally binding record of a person’s wish to save lives through organ, eye and tissue donation.

## About Donate Life California

Donate Life California is a nonprofit organization formed in 2004 after being authorized through state legislation. Donate Life California is supported by the state’s four federally-designated nonprofit organ procurement organizations (OPOs).

Donate Life California is dedicated to maintaining a safe and secure registry of donation wishes online and through its partnership with the DMV. For more information on the Donate Life California Registry or to register as an organ, eye and tissue donor, please visit our website at [www.donateLIFCalifornia.org](http://www.donateLIFCalifornia.org).

## Authorizing Legislation

SB 108 (Speier, 2001) and SB 112 (Speier, 2003) authorized the state’s four nonprofit OPOs to establish and maintain a computerized state donor registry. SB 689 (Speier, 2005) authorized the DMV to enroll donors when they apply for or renew a driver license or ID card.

# Connection to California's Health Education Content Standards

The recommended lesson plans included in this guide meet the following Health Education Content Standards for California Public Schools:

## **Standard 1: Essential Health Concepts**

All students will comprehend essential concepts related to enhancing health.

## **Standard 2: Analyzing Health Influences**

All students will demonstrate the ability to analyze internal and external influences that affect health.

## **Standard 3: Accessing Valid Health Information**

All students will demonstrate the ability to access and analyze health information, products and services.

## **Standard 4: Interpersonal Communication**

All students will demonstrate the ability to use interpersonal communication skills to enhance health.

## **Standard 5: Decision Making**

All students will demonstrate the ability to use decision-making skills to enhance health.

## **Standard 6: Goal Setting**

All students will demonstrate the ability to use goal-setting skills to enhance health.

## **Standard 7: Practicing Health-Enhancing Behaviors**

All students will demonstrate the ability to practice behaviors that reduce risk and promote health.

## **Standard 8: Health Promotion**

All students will demonstrate the ability to promote and support personal, family and community health.

## **Health Standards for Grades 7-12:**

### Mental, Emotional and Social Health

1.5.M Describe how social environments affect health and well-being. \*\*

7.5.M Participate in clubs, organizations and activities in the school and community that offer opportunities for student and family involvement. \*\*

### Personal and Community Health

2.4.P Analyze the influence of culture, media and technology on health decisions. \*

5.3.P Analyze the characteristics of informed health choices. \*

8.2.P Demonstrate the ability to be a positive peer role model in the school and community. \*

5.1.P Apply a decision-making process to a personal health issue or problem. \*\*

5.2.P Explain how decisions regarding health behaviors have consequences for oneself and others. \*\*

5.3.P Apply a decision-making process to a community or environmental health issue. \*\*

\* Grades 7-8

\*\* Grades 9-12

# Common CORE Standards

The recommended lesson plans included in this guide are aligned with the California CCSS Reading Standards for Literacy in Science and Technical Subjects:

Grades 9-10 Students	Grades 11-12 Students
1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
2. Determine the central ideas or conclusion of a text; trace the text’s explanation or depiction of a complex process, phenomenon or concept; provide an accurate summary of the text.	2. Determine the central ideas or conclusion of a text; summarize complex concepts, processes or information presented in a text by paraphrasing them in simpler but still accurate terms.
3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, and analyze the specific results based on explanations in the text.

## Recommended Lesson Plans

The following lessons have been designed to educate students about the facts of organ, eye and tissue donation so they can make their own decision.

### Overview of Recommended Lesson Plans:

1. What Do You Know About Organ, Eye and Tissue Donation? (15 minutes)
2. DVD Presentation: “Your Decision to Donate” (Abridged: 8.5 minutes; Full: 11 minutes)
3. Guest Classroom Speaker (varies)
4. The “5Ws” of Organ, Eye and Tissue Donation (30-40 minutes)
5. Stories of Hope: The Faces of Organ Donation (15-30 minutes)
6. Letter to My Family: Homework Assignment (10 minutes class time)

### Optional Lesson for Advanced Students:

7. Organ, Eye and Tissue Donation in the Public Arena

*See materials list for each lesson plan on the following page. All lessons are designed for grades 9-12.*

# Lesson Materials Provided in this Guide:

Documents may be photocopied from this booklet for use in the classroom.

## **Lesson 1 - What Do You Know About Organ, Eye and Tissue Donation?**

- Facts About Organ, Eye and Tissue Donation True/False Worksheet
- Facts About Organ, Eye and Tissue Donation True/False Answers

## **Lesson 2 - High School DVD Presentation**

- DVD: "Your Decision to Donate"

## **Lesson 3 - Guest Classroom Speaker**

- How to schedule a guest classroom speaker with a connection to organ, eye or tissue donation (such as a recipient, donor family member, etc.)

## **Lesson 4 - The "5 Ws" of Organ, Eye and Tissue Donation**

- The Organ Donation Process
- Understanding Brain Death
- Transplantable Organs and Tissues (2 documents)

## **Lesson 5 - Stories of Hope: The Faces of Organ Donation**

- Stories of Hope Response Questions
- Stories of Hope

## **Lesson 6 - Letter to My Family (Homework Assignment)**

- Letter to My Family

## Optional Lesson for Advanced Students

### **Lesson 7 - Organ, Eye and Tissue Donation in the Public Arena**

- Public Figures with a Connection to Organ, Eye and Tissue Donation

## Supplementary Lessons Available Online

- **Organ, Eye and Tissue Donation Word Search**
  - downloadable at [www.donateLIFEcalifornia.org/wordsearch](http://www.donateLIFEcalifornia.org/wordsearch)
- **Organ, Eye and Tissue Donation Crossword Puzzle**
  - downloadable at [www.donateLIFEcalifornia.org/crossword](http://www.donateLIFEcalifornia.org/crossword)

# Lesson Plan #1

## What Do You Know About Organ, Eye and Tissue Donation?

This assignment is most effective as the first lesson about organ, eye and tissue donation. This lesson may be completed in class or assigned as homework.

### Objective

Following this lesson, students will have a general understanding of organ, eye and tissue donation, and knowledge about common misconceptions, a few statistics and accurate facts. Any remaining misconceptions will be addressed in the “Your Decision to Donate” DVD, by the classroom speaker and/or through the following lessons.

**Time:** 15 minutes

**Materials Needed** (also available online at [donateLIFCalifornia.org/teachers](http://donateLIFCalifornia.org/teachers))

- Print-out of Organ, Eye and Tissue Donation Facts True/False (Worksheet and Answers versions)

### Lesson Plan

- *Small Group Option* – Arrange class into small groups or pairs and have one student “quiz” the others with the true/false questions, providing correct answers when needed.
- *Whole Group Option* – Instructor reads true/false statements about organ and tissue donation to whole class and asks individuals to respond (or offer their “best guess”). Provide correct answers when needed.
- *Homework Option* – Send print-out of Organ, Eye and Donation True/False home with students as homework before the first lesson. Review correct answers in class in small groups or with the whole group.

## SCHEDULE AN ORGAN DONATION PRESENTATION

Donate Life California offers informational presentations for high school students and community groups (subject to availability of presenters). Students and community members will learn about organ, eye and tissue donation, ask questions, and hear personal stories of individuals whose lives were directly impacted by donation and transplantation.

Schedule a presentation by visiting [www.donateLIFCalifornia.org/presentation](http://www.donateLIFCalifornia.org/presentation).

# What Do You Know About Organ and Tissue Donation?

## Student Worksheet:

*Directions: Review each statement about organ, eye and tissue donation below. Circle “true” if you think the statement is accurate or “false” if all or part of the answer is incorrect. Be prepared to explain your answers.*

1. **True or False:** When I get my California driver license, I am automatically registered as an organ, eye and tissue donor.
2. **True or False:** Anyone can sign up as an organ, eye and tissue donor regardless of medical history or age.
3. **True or False:** One organ donor can save up to eight lives and one tissue donor can enhance the lives of up to 50 people.
4. **True or False:** Most major religions do not permit organ, eye and tissue donation.
5. **True or False:** When you are admitted to the hospital, the number one priority is to save your life.
6. **True or False:** Celebrities and wealthy people on the waiting list receive priority for receiving an organ.
7. **True or False:** It is against federal law to sell organs, eyes and tissues.
8. **True or False:** The donor family must pay for organ, eye and/or tissue donation.
9. **True or False:** An open casket funeral is possible for organ, eye and tissue donors.
10. **True or False:** Organs, eyes and tissues cannot be given to different ethnic groups or the opposite sex.

## FAST FACTS ABOUT ORGAN DONATION

Learn more about the common myths and misconceptions involving organ, eye and tissue donation by visiting [www.donateLIFeCalifornia.org/fastfacts](http://www.donateLIFeCalifornia.org/fastfacts).

# Lesson 1 - True/ False Answers

## What Do You Know About Organ, Eye and Tissue Donation?

1. When I get my California driver license, I am automatically registered as an organ, eye and tissue donor.  
**False.** The United States has an “opt-in” system in which those who wish to be an organ, eye and tissue donor need to register. To register, check “YES!” when you apply for your driver license or ID card at the DMV. You can also register online at [www.donateLIFEcalifornia.org](http://www.donateLIFEcalifornia.org).
2. Anyone can sign up as an organ, eye and tissue donor regardless of medical history or age.  
**True.** Anyone can decide to become a donor regardless of medical history, age or race. Your medical condition at the time of death determines what organs and tissues can be donated.
3. One organ donor can save up to eight lives and one tissue donor can enhance the lives of up to 50 people.  
**True.** An organ donor can donate a heart, liver, lungs, kidneys, pancreas and intestines. The kidneys and lungs can each save the lives of two people. One tissue donor can donate skin, veins, bone, connective tissue (such as tendons, ligaments and cartilage), corneas from the eyes, and heart valves.
4. Most major religions do not permit organ, eye and tissue donation.  
**False.** All major religions support or permit organ, eye and tissue donation.
5. When you are admitted to the hospital the number one priority is to save your life.  
**True.** Whether in a hospital or at the scene of an accident, emergency medical personnel immediately begin life-saving procedures. Every effort is made to save the life of patient.
6. Celebrities and wealthy people on the waiting list receive priority for receiving an organ.  
**False.** Organs are allocated according to medical need, blood and tissue type, height and weight. Celebrity status and wealth are not considered.
7. It is against federal law to sell organs, eye and tissues.  
**True.** Under the National Organ Transplant Act of 1984, it is illegal to receive money or gifts in exchange for organ, eye and tissue donations.
8. The donor family must pay for organ, eye and/or tissue donation.  
**False.** There is no cost to the donor’s family for organ, eye and tissue donation. All costs related to donation are paid by the recovery organization.
9. An open casket funeral is possible for organ, eye and tissue donors.  
**True.** The decision to donate does not affect the option of an open casket and families can proceed with regular funeral arrangements. The body is treated with dignity, care and respect throughout the entire donation process.
10. Organs, eyes and tissues cannot be given to different ethnic groups or the opposite sex.  
**False.** Gender does not influence the allocation of donated organs, eyes or tissues. Although it is possible for a candidate to match a donor from another ethnic group, often transplant success rates increase when organs are matched between members of the same ethnic background.

# Lesson Plan #2 and #3

## DVD/Speaker

An important part of enabling students to make an educated decision to be an organ, eye and tissue donor is providing opportunities for them to connect with people touched by donation or transplantation. Hearing first-hand from someone who has been saved by an organ transplant, or from a donor family member who has lost a loved one and chose to save another's life through organ donation, can bring the story home.

To bring these personal stories to your classroom, Donate Life California offers the following teaching tools to you:

### **Lesson 2. High School DVD: “Your Decision to Donate”**

**Introduction to Video:** When you apply for your driver license, you are presented with the opportunity to join the organ, eye and tissue donor registry. This short video which is presented in high schools throughout California, gives the facts about organ, eye and tissue donation, describes how you can save lives, and shares personal stories of individuals whose lives were directly impacted by donation and transplantation.

**Time:** 8.5 minutes (abridged version); 11 minutes (full-length version). Allow additional time for Q&A following DVD presentation.

**Materials Needed** (also available online at [donateLIFECalifornia.org/teachers](http://donateLIFECalifornia.org/teachers))

- DVD: “Your Decision to Donate”

### **Lesson Plan**

- Show the “Your Decision to Donate” DVD to the students.
- Following the DVD, provide an opportunity to ask questions.
- Answers to common questions not addressed in the DVD can be found at [www.donateLIFECalifornia.org/FAQS](http://www.donateLIFECalifornia.org/FAQS).

### **Lesson 3. Guest Classroom Speaker – Individual with Personal Connection to Transplant Community**

Scheduling a classroom speaker from Donate Life California is encouraged and offers students an engaging perspective about the importance of organ, eye and tissue donation. Volunteer speakers are trained to tell their personal story about donation or transplantation and how it has positively affected their life.

To schedule a speaker, visit [www.donateLIFECalifornia.org/presentation](http://www.donateLIFECalifornia.org/presentation).

# Lesson Plan #4

## The “5 Ws” of Organ, Eye and Tissue Donation

*The “5 Ws” - Who, What, Where, When and Why*

### Objective

Following this lesson, students will have an understanding of how organ, eye and tissue donation works, including the definition of brain death, how organ donation happens, and what organs and tissues can be transplanted.

**Time:** 30-40 minutes

**Materials Needed** (also available online at [donateLIFCalifornia.org/teachers](http://donateLIFCalifornia.org/teachers))

- The Organ Donation Process (page 13)
- Understanding Brain Death (page 14)
- Transplantable Organs and Tissues (page 15-18)\*

### Lesson Plan

- *Whole Group Option* – Teacher can read materials to the class, or assign students to do so, and have an open question/answer period following each section. Materials can be displayed on a screen for visual aid.
- *Small Group Option* – Divide class into small groups to learn about each section and have them share with the whole class. Students may be allowed 5-10 minutes to review pages 14-19 of this guide and determine the best way to present the information to their classmates. (Classes of a larger size can assign more students to Groups 3 and 4 and each share what information they learned by selecting one or two different organs and/or tissues.)

Group 1: The Organ Donation Process

Group 2: Understanding Brain Death

Group 3: Transplantable Organs

Group 4: Transplantable Tissues

## Community Service Opportunities

For information about ways to help educate your community about organ, eye and tissue donation, visit **[www.donateLIFCalifornia.org/volunteer](http://www.donateLIFCalifornia.org/volunteer)**.

\* Available for download or print in multiple sizes at [www.donateLIFCalifornia.org/posters](http://www.donateLIFCalifornia.org/posters).

# The Organ Donation Process

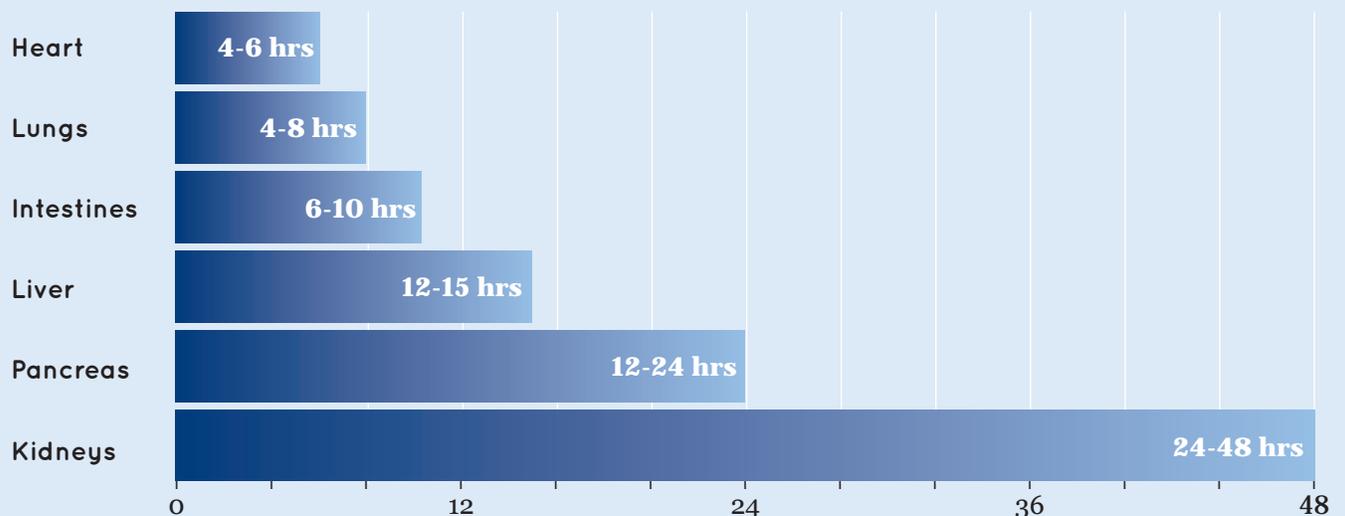
## The 5 Steps of the Organ Donation Process



1. **Trauma and Death** - Whether in a hospital or at the scene of an accident, emergency medical personnel immediately begin life-saving procedures. Every effort is made to save the patient's life.
2. **Referral** - Once it is determined a patient may not survive, the hospital must refer the patient to the local organ procurement organization.
3. **Evaluation** - The organ procurement organization evaluates if organ donation may be an option.
4. **Approach** - If the patient is eligible to donate, the organ procurement organization will speak to the family. The family will be notified if their loved one registered as an organ donor.
5. **Organ Recovery** - Once consent is granted, either through the Donate Life California Registry or the family, the organs are recovered and used to help save the lives of those on the organ transplant waiting list.
6. **Funeral Arrangements** - The family can proceed with regular funeral arrangements. The decision to donate does not affect the option of an open casket.

Time is critical when it comes to organ transplants. Please refer to the graph below to see the time each organ has between recovery and transplant to still be a viable organ.

## Organ Preservation Times



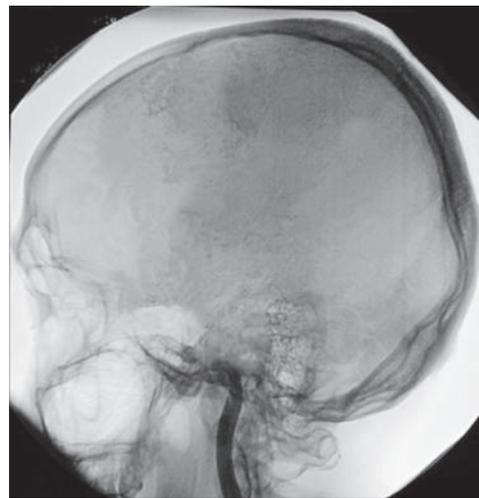
# Understanding Brain Death

## What is Brain Death?

- The complete and irreversible loss of brain and brain stem function.
- An established medical and legal definition of death.
- Brain death is death.
- When the brain is injured, it swells. However, the brain is confined in the skull and has no room to swell, which leads to brain death.



The above image shows the blood flow inside a normal, active brain. When someone severely injures their brain, the blood flow is cut off or restricted by pressure from the swelling brain.



Brain death occurs when the blood flow to the brain is entirely lost. The photo above is of a brain dead brain.

(Images courtesy of Gift of a Lifetime)

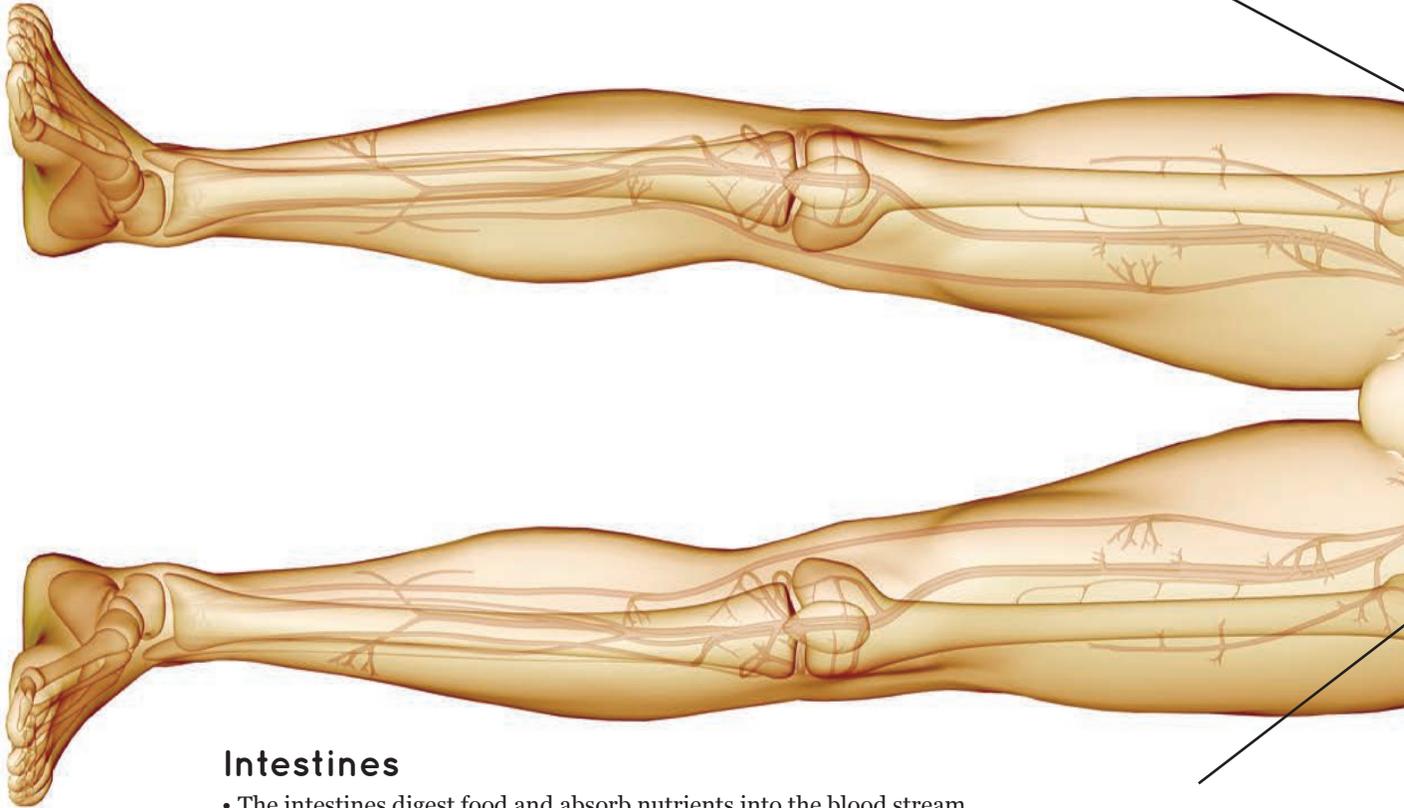
## How Tissue Donation Differs From Organ Donation

While less than one percent of hospital deaths meet the criteria for organ donation (usually the patient must be brain dead), eye and tissue donation are open to nearly everyone. Hospitals are required to report all deaths to the recovery organization. If the tissue donor meets donor eligibility, the registry is checked. Once authorization is verified, or consent is given by the potential donor's family, a medical team is dispatched by the eye and/or tissue bank for recovery. Each tissue donor can enhance up to 50 lives.

# Transplantable Organs

## Pancreas

- The pancreas produces insulin, a hormone that helps the body use glucose (sugar) for energy, and enzymes that break down fat, protein and carbohydrates during digestion.
- The pancreas controls the level of glucose in the blood. It is often transplanted with a kidney because diabetes affects both organs.
- The pancreas can be preserved for 12–24 hours.



## Intestines

- The intestines digest food and absorb nutrients into the blood stream.
- Most intestinal transplants are performed on infants and children.
- Some conditions that could make a transplant necessary are twisted or blocked intestines or short-gut syndrome.
- Intestines can be preserved for 6–10 hours.

## TAKE THE INTERACTIVE BODY TOUR

Step inside the interactive body tour to learn more about the body and the organs and tissues that can be donated to help others at [www.donateLIFeCalifornia.org/bodytour](http://www.donateLIFeCalifornia.org/bodytour).

## Kidneys

- The kidneys filter wastes and excess water from the blood and balance the body's fluids.
- While waiting for a kidney transplant, many patients undergo dialysis to remove toxins out of their blood.

- Some conditions that could make a kidney transplant necessary are high blood pressure, diabetes and cystic kidney disease.
- Ethnic minorities are four times more likely to develop kidney failure.
- Kidneys are the most commonly transplanted organs and most needed.
- Kidneys can be preserved up to 24–48 hours.

## Lungs

- The trachea or windpipe carries air to the lungs. The alveoli - tiny air sacs similar to folded balloons - extract oxygen and exchange it for carbon dioxide.
- A single lung can save a life. One donor can be the source of two lung transplants.
- Some conditions that could necessitate a lung transplant are cystic fibrosis, pulmonary hypertension, emphysema and pulmonary edema.
- Lungs have a preservation time of up to 4–8 hours.

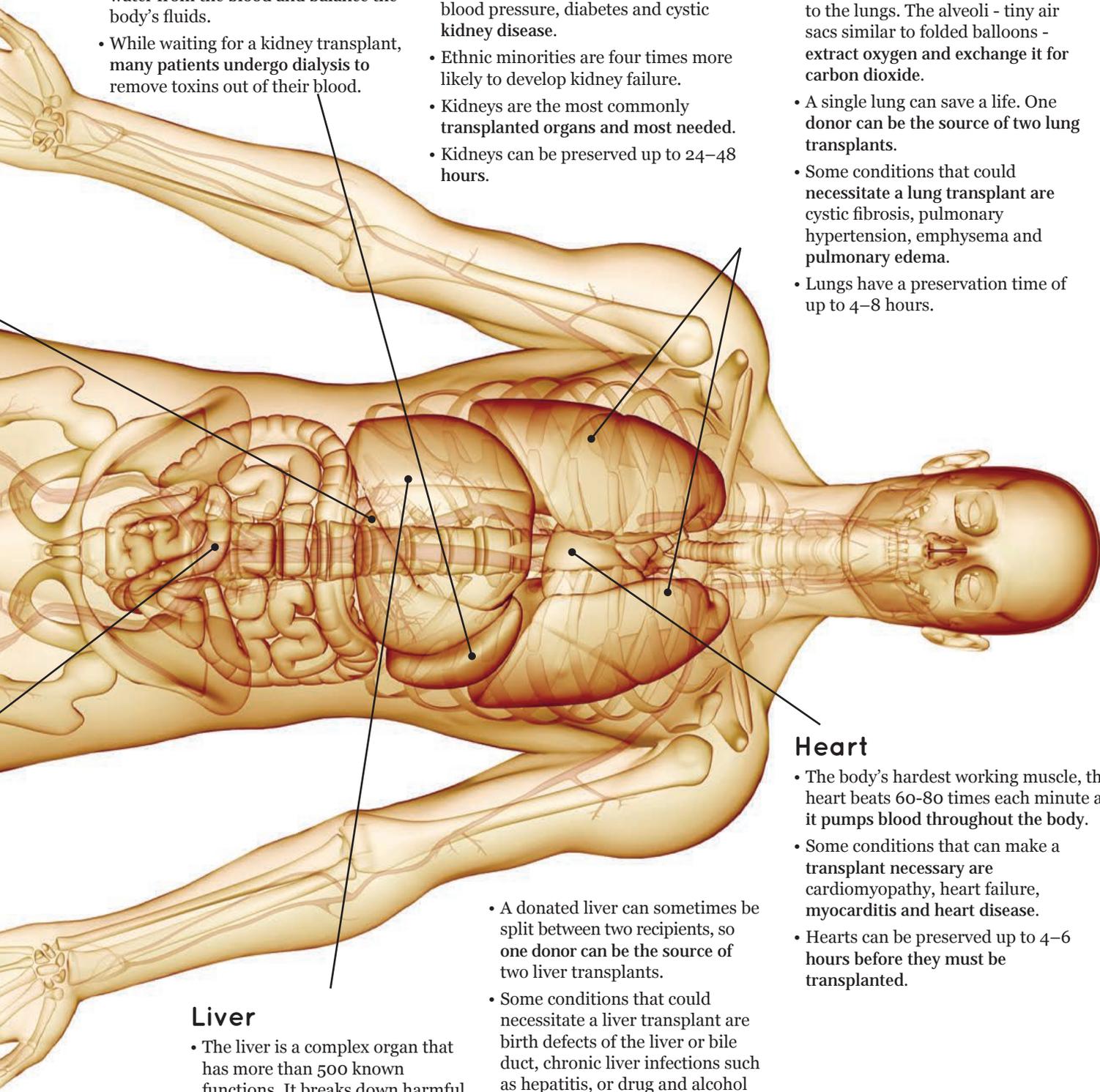
## Heart

- The body's hardest working muscle, the heart beats 60-80 times each minute as it pumps blood throughout the body.
- Some conditions that can make a transplant necessary are cardiomyopathy, heart failure, myocarditis and heart disease.
- Hearts can be preserved up to 4–6 hours before they must be transplanted.

## Liver

- The liver is a complex organ that has more than 500 known functions. It breaks down harmful substances in the blood, produces bile that aids in digestion and stores vitamins, sugars and fats.

- A donated liver can sometimes be split between two recipients, so one donor can be the source of two liver transplants.
- Some conditions that could necessitate a liver transplant are birth defects of the liver or bile duct, chronic liver infections such as hepatitis, or drug and alcohol damage.
- Livers have a preservation time of up to 12–15 hours.

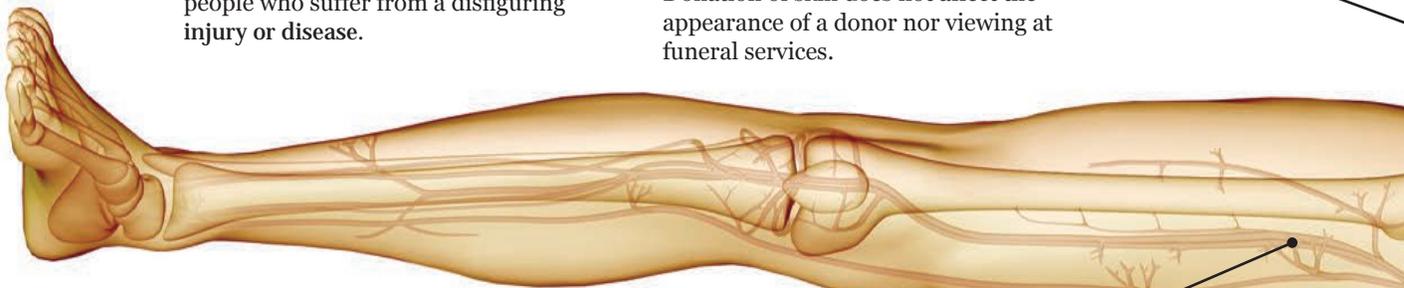


# Transplantable Tissues

## Skin

- About 21 square feet of skin, weighing up to 15 pounds, cover the average adult. Not only is skin the body's first line of defense against microbes, but it also regulates heat and fluids in the body.
- Skin can be used to aid in the healing process for severe burn victims and people who suffer from a disfiguring injury or disease.

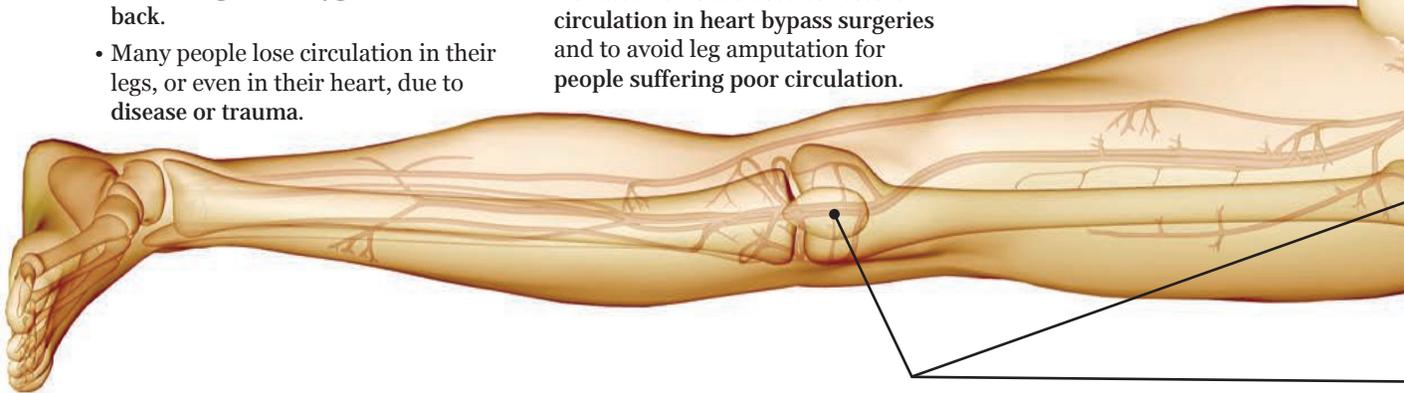
- Donated skin grafts will protect recipients from infection while promoting regeneration of their own skin.
- Skin from donors is removed from all parts of the body and can be used to repair large hernias or for tissue reconstruction.
- Donation of skin does not affect the appearance of a donor nor viewing at funeral services.



## Veins

- Arteries carry oxygenated blood from the heart to the rest of the body and veins bring the deoxygenated blood back.
- Many people lose circulation in their legs, or even in their heart, due to disease or trauma.

- Donated veins are used to restore circulation in heart bypass surgeries and to avoid leg amputation for people suffering poor circulation.

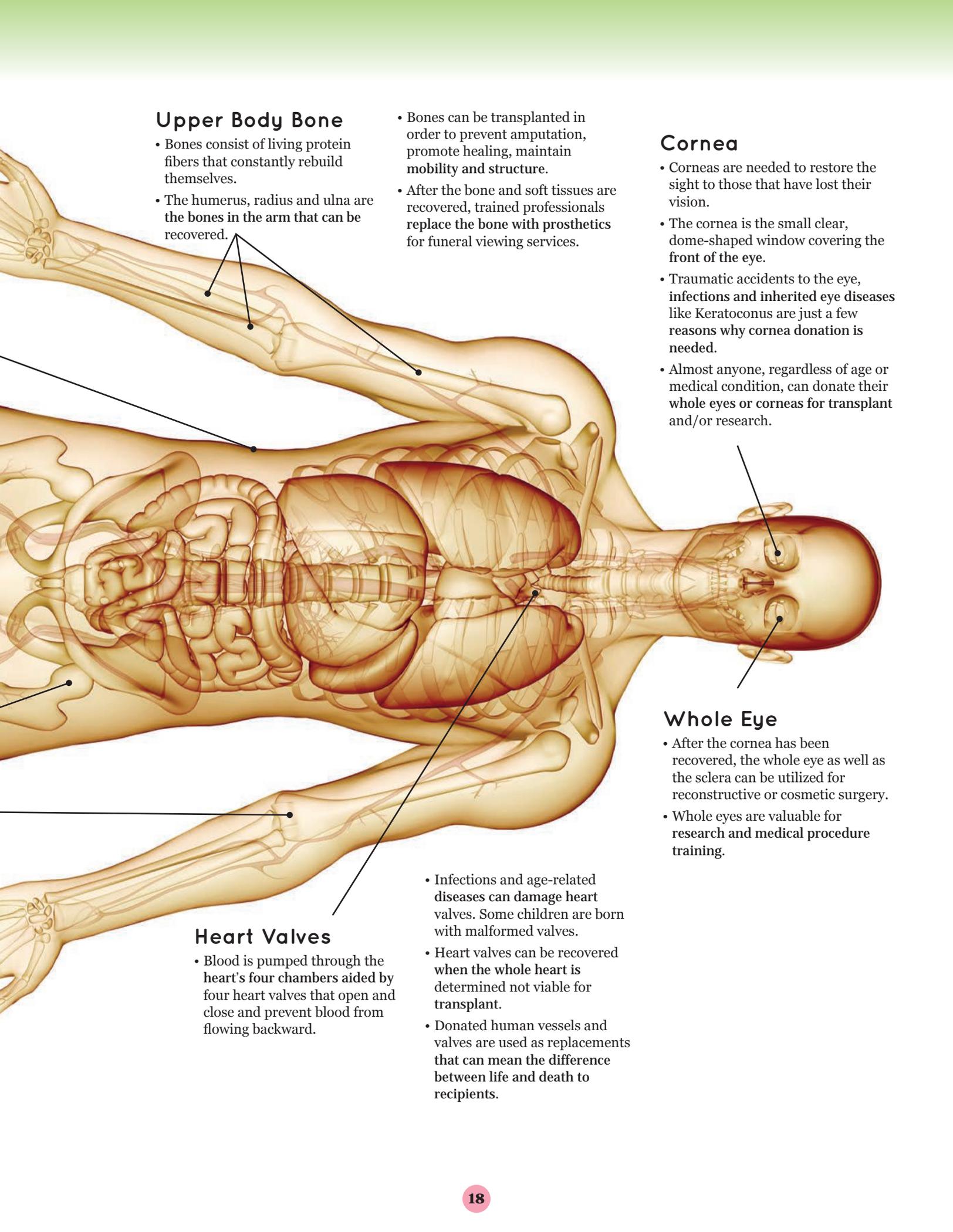


## Bone & Connective Tissue

- The gift of bone and connective tissues helps individuals with various orthopedic and neurological conditions.
- Tissue include tendons, ligaments and cartilage that will be used in a variety of back, joint and leg surgeries, such as hip replacement, knee reconstruction and spinal fusion.
- After the bone and soft tissues are recovered, trained professionals replace the bone with prosthetics for funeral viewing arrangements.

## DOWNLOADABLE POSTERS

Transplantable organ, eye and tissue posters are available for download and formatted for printing at [www.donateLIFecalifornia.org/posters](http://www.donateLIFecalifornia.org/posters).



## Upper Body Bone

- Bones consist of living protein fibers that constantly rebuild themselves.
- The humerus, radius and ulna are the bones in the arm that can be recovered.

- Bones can be transplanted in order to prevent amputation, promote healing, maintain mobility and structure.
- After the bone and soft tissues are recovered, trained professionals replace the bone with prosthetics for funeral viewing services.

## Cornea

- Corneas are needed to restore the sight to those that have lost their vision.
- The cornea is the small clear, dome-shaped window covering the front of the eye.
- Traumatic accidents to the eye, infections and inherited eye diseases like Keratoconus are just a few reasons why cornea donation is needed.
- Almost anyone, regardless of age or medical condition, can donate their whole eyes or corneas for transplant and/or research.

## Whole Eye

- After the cornea has been recovered, the whole eye as well as the sclera can be utilized for reconstructive or cosmetic surgery.
- Whole eyes are valuable for research and medical procedure training.

## Heart Valves

- Blood is pumped through the heart's four chambers aided by four heart valves that open and close and prevent blood from flowing backward.

- Infections and age-related diseases can damage heart valves. Some children are born with malformed valves.
- Heart valves can be recovered when the whole heart is determined not viable for transplant.
- Donated human vessels and valves are used as replacements that can mean the difference between life and death to recipients.

# Lesson Plan #5

## Stories of Hope: The Faces of Organ Donation

### Objective

Following this lesson, students will have an understanding that organ donation affects people of all ages, ethnicities and walks of life. They will also develop a level of compassion for people affected by organ donation. This lesson may be completed in class or as homework.

**Time:** 15-30 minutes

**Materials Needed** (also available online at [donateLIFEdcalifornia.org/teachers](http://donateLIFEdcalifornia.org/teachers))

- Stories of Hope Response Questions
- Student access to Internet and search engine (e.g. Google or Yahoo!) OR
- Stories of Hope, on page 21-22 or at [www.donateLIFEdcalifornia.org/storiesofhope](http://www.donateLIFEdcalifornia.org/storiesofhope)

If students are researching independently, they can find stories of organ, eye and tissue donors and recipients via a general search and/or on the following sites:

- [www.donateLIFEdcalifornia.org](http://www.donateLIFEdcalifornia.org)
- [www.CTDN.org](http://www.CTDN.org)
- [www.OneLegacy.org](http://www.OneLegacy.org)
- [www.Lifesharing.org](http://www.Lifesharing.org)
- [www.SierraDonor.org](http://www.SierraDonor.org)
- [www.organdonor.gov](http://www.organdonor.gov)
- [www.transplantliving.org](http://www.transplantliving.org)

### Lesson Plan

- ***In-Class Option*** - Direct individual students to use the Internet to research stories of organ donors and/or organ transplant recipients and select one story OR provide Stories of Hope on pages 21-22.
- ***Homework Option*** - At home, direct individual students use the Internet to research stories of organ donors and/or organ transplant recipients and select one story OR provide Stories of Hope on pages 21-22.
  - Option 1: Students respond in writing to the Stories of Hope Response Questions.
  - Option 2: Ask students to select one story to share aloud. Arrange students into small groups or pairs. Have students read or summarize the story to their classmate(s) and respond to the Stories of Hope Response Questions verbally.

# Stories of Hope Response Questions

## Student Worksheet:

*Directions:* Read one or more stories of a person who has been touched by organ donation. It may be someone young or old who is an organ, eye or tissue donor recipient. After reading his or her story, respond to the questions below.

1. In your own words, summarize the story you selected.
2. Why did you choose this story to share? What did you like about this story and/or person?
3. How are you like this person? How are you different from this person?
4. Does this person make you think of anyone in your life (grandparent, sibling, family friend, etc.)?
5. How do you think this person (or this person's family) feels about organ donation and transplantation after their experience?
6. What are your thoughts after reading this story? What did you learn? Did it cause you to think differently about organ, eye or tissue donation?

# Stories of Hope



## Vicky Nguyen, Liver Recipient

Shortly after Vicky was born, she was diagnosed with biliary atresia, a potentially fatal liver condition. Just before she turned two, Vicky received her first liver transplant at UCLA Medical Center. Vicky received a second liver transplant in July 2000 at age 16. The difficult experiences Vicky has overcome have shown her how strong she is. “Believe it or not, having two transplants was a huge blessing in my life,” said Vicky. “I don’t take for granted that I’ve been a liver transplant survivor for more than 26 years. I’m able to turn my challenges into greater opportunities.”

## Geary McKoy, Kidney Recipient

In April 2000, following a physical to qualify for life insurance, Geary McKoy was diagnosed with kidney disease. For the next several years, his kidney function deteriorated and his quality of life changed dramatically.

“My health had an impact on my professional and personal life. As a sales manager for a Fortune 100 Company, I was required to travel and work long hours.” The many toxins in his bloodstream caused extreme fatigue and on most days left him exhausted and ready to retreat for a nap by mid-afternoon.

With his failing health, Geary was forced to go on dialysis and, over time, his quality of life diminished because of the frequency and the time required for the treatments. Finally, after nine months on dialysis, Geary received the news he’d been waiting for - a kidney had become available!





## Alfonso Garcia, Liver Recipient

As the youngest of three brothers, Alfonso Garcia always thought he'd follow in their footsteps by boxing at the amateur level and perhaps joining the military.

But following a workout in the ring in January 2010, Alfonso grew sick. The whites in his eyes and his skin changed to a mustard yellow color. Not knowing what was wrong Alfonso went to the doctor and discovered that he had a rare genetic disorder that caused his liver to suddenly shut down.

After his transplant Alfonso is living the life he once might never have had. "I was on the edge of dying and, through a miracle, I am alive today."

## Melanie Miers, Four Organ Donor

Melanie Miers attended San Bernardino High School and was very active in sports. She was on the water polo, swim and cross country teams. Melanie was also involved with her church, Our Lady of the Rosary Cathedral, and was to be the narrator of a play that the youth were putting on for their parents. Unfortunately, on the day of the play she was in the hospital.

It was Melanie's choice to donate. In November 2005, Melanie turned sixteen and was excited about getting her driver license. Melanie and her sister, Michelle, informed their mother that they would like to put the pink donor dot on their driver license when they received it.

Melanie had the opportunity of donating her heart, liver, kidneys and pancreas. She gave the gift of life to four recipients, one of whom was her age at the time of her donation.



## ADDITIONAL STORIES OF HOPE

For more inspirational Stories of Hope from around the state and print-ready stories, visit [www.donateLIFecalifornia.org/stories](http://www.donateLIFecalifornia.org/stories).

# Lesson Plan #6

## Letter to My Family: Homework Assignment

### Objective

Students will have an opportunity to have a dialogue with their parent(s) or guardian(s) to discuss what they learned about organ, eye and tissue donation and ask any questions they may have.

**Time:** 10 minutes in class

### Materials Needed (to be sent home with students)

- Letter to My Family (page 24)

### Lesson Plan

Provide students with the worksheet, “Letter to My Family”, and discuss that this is a tool to help them to begin a dialogue with their family about organ, eye and tissue donation. Have them complete the letter in class and take it home to share with their family.

Based on the lessons covered in class, students may have made a decision and be ready to share their wishes with their parents. Or, students may have further questions to ask their parents. In some cases, students may be educating their families about organ, eye and tissue donation. Answers to remaining questions may be found at [www.donateLIFECalifornia.org](http://www.donateLIFECalifornia.org) or by emailing [info@donateLIFECalifornia.org](mailto:info@donateLIFECalifornia.org)

Because the decision to be an organ donor is a personal one, it is not required that students return the letter to their classroom teacher.

## FREQUENTLY ASKED QUESTIONS AND RELIGIOUS VIEWS ON DONATION

For answers to frequently asked questions, turn to page 27 of this guide or visit [www.donateLIFECalifornia.org/FAQS](http://www.donateLIFECalifornia.org/FAQS). For information on various religious perspectives on organ donation, visit [www.donateLIFECalifornia.org/religion](http://www.donateLIFECalifornia.org/religion).

# Letter to My Family

Dear Student,

In class you have been learning facts about donation and transplantation so that you can make a decision about being an organ, eye and tissue donor. It is a good idea to share what you learned with your parent(s) or guardian(s) and ask them any questions you may have.

It may be a little strange or awkward to start this discussion with your family, but talking about it now could someday make the decision easier for your family.

The below statements are provided to help you begin the conversation with your family. You may have questions to ask them or information you want to research more. Or you may be surprised to find yourself teaching your family about organ, eye and tissue donation and transplantation!

Dear \_\_\_\_\_,

During \_\_\_\_\_ class, we have been learning about organ, eye and tissue donation and transplantation so that we can make a decision about being an organ, eye and donor. I will be asked about this at the DMV when I get my driver license and each time I renew it.

- Some of the things I learned about this topic surprised or interested me, such as \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.
- Some questions I still have about organ, eye and tissue donation are: \_\_\_\_\_  
\_\_\_\_\_.
- Do you know anyone who has been an organ donor, received a transplant, or is waiting for a transplant? \_\_\_\_\_  
\_\_\_\_\_.
- When I get my driver license at the DMV, I will be asked if I would like to register to be an organ, eye and tissue donor. I am leaning towards saying \_\_\_\_\_. What do you think? Know that as my legal guardian, the final decision is yours until I turn 18 years old.

Signed,

\_\_\_\_\_

*Still have questions? Find answers at [www.donateLIFECalifornia.org](http://www.donateLIFECalifornia.org).*

# Lesson Plan #7

## Organ, Eye and Tissue Donation in the Public Arena

### Objective

Directions: Review the names of the athletes, celebrities and politicians below and research their personal connection to organ, eye and tissue donation or transplantation. Do any of these names and/or their stories surprise you?

Time: 15-30 minutes

### Lesson Plan

More than 28,000 people in the United States receive an organ transplant each year, and more than 1 million receive tissue transplants each year in the form of hip replacements, knee reconstructions and valve replacements. Countless others have been touched by donation when their loved ones gave the gift of life as an organ donor. Still others are living kidney donors, having donated one of their two kidneys to another person.

*Research the following individuals and learn about their connection to donation.*

Dick Cheney, former U.S. Vice President

Natalie Cole, singer songwriter

Erik Compton, professional golfer

Sean Elliott, retired NBA player for San Antonio Spurs and Detroit Pistons

Joey Gase, stock car racing driver

Katherine Heigl, actress

Sarah Hyland, actress

Steve Jobs, cofounder and CEO of Apple, and former CEO of Pixar

Chris Klug, professional snowboarder and bronze medal winner in 2002 Olympics

Ashton Kutcher, actor

Ann Lopez, actor/director

Alonzo Mourning, retired NBA Player for Charlotte Hornets, Miami Heat and New Jersey Nets

Carson Palmer, NFL player for Arizona Cardinals

Mandy Patinkin, actor

## START AN eCAMPAIGN

The Donate Life California eCampaign is a free, simple tool designed to inspire your community to save lives by signing up on the statewide registry to become organ, eye and tissue donors through a unique URL customized with your story and picture. All you need to submit to Donate Life California is a picture to be added to your unique URL and a short paragraph about your connection to donation. To start an eCampaign, visit

**[www.donateLIFecalifornia.org/eCampaign](http://www.donateLIFecalifornia.org/eCampaign)**.

# Careers Associated With Transplantation

Career opportunities in medicine are on the rise and the donation and transplantation field is no exception. Anyone who chooses a career in this field will enter one of the most challenging and rapidly changing areas of medicine and also one where they can expect to help save the lives of countless people. Below are just some of the careers in the organ donation and transplantation field.

**Procurement Coordinators** are members of organ recovery organizations, typically a nurse, who is responsible for evaluating potential donors, discussing donation with family members, and managing the donor prior to the organ recovery process.

**Physicians** diagnose and treat diseases that may result in organ failure, provide treatment and prescribe medication for individuals who are waiting for an organ transplant or have undergone transplantation.

**Dialysis Technicians** oversee the process of safely administering dialysis to kidney patients. Patients with failing kidneys who are waiting for a transplant must have dialysis to keep their bodies cleansed of impurities that healthy kidneys would normally eliminate.

**Operating Room Nurses** treat organ transplant recipients and donors, as well as assist in surgery during organ, eye and tissue transplantation.

**Lab Technicians** are trained in the life sciences that help catalog, store and test tissues, blood samples and other important information.

**Immunologists** are research scientists who study the body's immune system and help develop ways for the body to more effectively accept a transplanted organ with fewer side effects.

**Researchers** in the field of medicine - chemists, biologists, radiologists, and others with training and/or experience in the life sciences - help develop new drug treatments, methods of transplantation and ways of treating organ recipients.

**Pharmacists** accurately and safely counsel patients on the proper use and adverse effects of prescription medicines and their interactions.

**Transplant Coordinators** are members of the transplant center staff responsible for managing the care and progress of potential transplant recipients before, during and after the transplantation.

**Physical Therapists** develop and help administer exercise programs that enable organ recipients to recover their physical strength and resume their normal activities.

**Radiologists** are medical doctors who specialize in diagnosing and treating disease and injuries using medical imaging techniques such as x-rays and ultrasounds.

**Transplant Surgeons** specialize in the recovery and transplantation of organs.

# Frequently Asked Questions

## **Does organ, eye and tissue donation really help people?**

- Organ transplants are life-saving operations. People on the transplant waiting list are suffering organ failure from conditions such as heart failure and kidney disease. Without the help of a generous gift of life from an organ donor they will die.
- Tissue transplants are life-saving and/or life-enhancing operations. They save the lives of recovering burn victims, help blind people to see and allow people to walk again.
- Post-transplant organ, eye and tissue recipients can live healthy, active lives that weren't possible when they were ill. Most recipients make such an amazing recovery, you would not know that they received a transplant unless they told you.

## **Who can be a registered organ, eye and tissue donor?**

- Anyone can be considered for organ, eye and tissue donation.
- Trained and experienced medical professionals make decisions about medical suitability of organs at the time of death.
- Everyone, regardless of age or medical history, is encouraged to sign up as a donor.

## **How do I become a registered organ, eye and tissue donor?**

- Simply check “YES! I want to be an organ and tissue donor” when you renew or apply for your driver license or ID card through the DMV.

OR

- Anyone age 13 or older can sign up online anytime or learn more about organ, eye and tissue donation by visiting [www.donateLIFEcalifornia.org](http://www.donateLIFEcalifornia.org).

## **Can I set limitations on the organs, eyes and tissues I would like to donate?**

- Saying “YES!” to donation on your driver license indicates your consent for all organs, eyes and tissues for transplant and research.
- If you would like to specify which organs and tissues you would like to donate, visit [www.donateLIFEcalifornia.org](http://www.donateLIFEcalifornia.org).

## **What if I change my mind?**

- You can remove your registration anytime at [www.donateLIFEcalifornia.org](http://www.donateLIFEcalifornia.org) or by calling us at 866-797-2366.

## **Does the donor's family incur the cost of donation?**

- There is no cost to the donor's family for organ, eye and tissue donation.
- All costs related to donation are paid by the organ procurement organization (OPO).
- By law, expenses related to saving the individual's life and funeral expenses remain the responsibility of the donor's family.

## **What if an individual registered to be a donor but their family is opposed to donation?**

- If an individual 18 years or older has recorded his/her personal decision, it must be honored if medically possible.
- State and federal laws support the donor's right to make the decision and have it carried out.
- Information about the individual's decision will be communicated to the family members before donation occurs. They will be emotionally supported throughout the donation process.

### **Can the donor family meet the recipient(s)?**

- Organ, eye and tissue donation is a confidential process. No pressure is placed on donor families or transplant recipients to meet or make contact with one another.
- Shortly after donation, the donor family and recipient(s) will receive general information about one another. No identifying details are shared unless consent has been given by both parties. Organ recovery organizations and the transplant centers can arrange contact if the desire is mutual.

### **How is the organ allocation process determined?**

- If someone needs an organ transplant, his or her name is added to the national transplant waiting list. The United Network for Organ Sharing (UNOS) is the organization in charge of the waiting list.
- UNOS works with organ procurement organizations to match available organs to recipients in need.
- Through extensive testing, information about blood type and genetic make-up for each transplantable organ is obtained. This information is utilized to develop a list of suitable recipients prioritized by considering factors such as medical urgency, tissue type, length of time on the waiting list, blood type, and body size.
- Geographic location is also considered in placement. Organs are offered in accordance to proximity to the donor.
- There is no discrimination due to age, sex, ethnicity, occupation, or social/financial status when determining who receives an organ.

### **Will doctors still work hard to save a patient who is a registered donor?**

- It is only after every attempt has been made to save a patient's life and death has been declared that the donation process begins.
- The doctors who work to save your life are not the same doctors involved in the recovery and transplantation of your donated organs.

### **Will funeral arrangements be possible after donation?**

- Funeral arrangements, including an open casket, will not be affected by the decision to donate.

### **Can organs, eyes and tissues be given to different ethnic groups or individuals of the opposite sex?**

- Gender does not influence the allocation of donated organs, eyes or tissues.
- Although it is possible for a candidate to match a donor from another ethnic group, often transplant success rates increase (due to tissue compatibility) when organs are matched between members of the same ethnic background.
- In California, ethnic minorities make up more than 70 percent of the people on the National Transplant Waiting List.

- Make sure your family is aware of your donation decision. Knowing your intentions will provide comfort to your family.
- Most families want to follow through on their loved ones' final life-giving wishes.
- The next of kin of registered donors under the age of 18 still must consent to donation before it can be carried out.

# Local Donation Resources

## Donate Life California

3465 Camino Del Rio South, Suite 410  
San Diego, CA 92108  
866-797-2366

[www.donateLIFeCalifornia.org](http://www.donateLIFeCalifornia.org)  
[www.doneVIDAcalifornia.org](http://www.doneVIDAcalifornia.org)

## Nonprofit Regional Organ and Tissue Recovery Organizations California Transplant Donor Network

1000 Broadway, Suite 600  
Oakland, CA 94607  
888-570-9400 | [www.ctdn.org](http://www.ctdn.org)

### Serving the Following Counties:

Alameda, Alpine, Butte, Contra Costa, Del Norte, Fresno, Glenn, Humboldt, Inyo, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Plumas, San Benito, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Stanislaus, Tehama, Trinity, Tulare, Tuolumne

## Lifesharing

3465 Camino del Rio South, Suite 410  
San Diego, CA 92108  
619-521-1983 | [www.lifesharing.org](http://www.lifesharing.org)

**Serving the Following Counties:**  
Imperial, San Diego

## OneLegacy

221 South Figueroa Street, Suite 500  
Los Angeles, CA 90012  
800-786-4077 | [www.onelegacy.org](http://www.onelegacy.org)

### Serving the Following Counties:

Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura

## Sierra Donor Services

1760 Creekside Oaks Drive, Suite 220  
Sacramento, CA 95833  
877-401-2546 | [www.sierradonor.org](http://www.sierradonor.org)

### Serving the Following Counties:

Amador, Calaveras, Colusa, El Dorado, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, Yuba

# Other Donation Resources

## Donate Life America

[www.donatelife.net](http://www.donatelife.net) / [www.donevida.org](http://www.donevida.org)

## United Network for Organ Sharing (UNOS)

[www.unos.org](http://www.unos.org)

## Department of Health and Human Services

[www.organdonor.gov](http://www.organdonor.gov)

## U.S. Food and Drug Administration

[www.fda.gov](http://www.fda.gov)

## Gift of a Lifetime

[www.organtransplants.org](http://www.organtransplants.org)

## Transplant Living

[www.transplantliving.org](http://www.transplantliving.org)

## National Marrow Donor Program

[www.bethematch.org](http://www.bethematch.org)

## Blood Centers of California

[www.bloodcentersofcalifornia.org](http://www.bloodcentersofcalifornia.org)

## American Association of Tissue Banks

[www.aatb.org](http://www.aatb.org)

## Eye Bank Association of America

[www.restoresight.org](http://www.restoresight.org)

## National Kidney Registry

[www.kidneyregistry.org](http://www.kidneyregistry.org)



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[www.donateLIFecalifornia.org](http://www.donateLIFecalifornia.org)  
[www.doneVIDAcalifornia.org](http://www.doneVIDAcalifornia.org)

## We'd like your feedback!

Please share your thoughts and best practices with us to make the next update to the education guide and online content more useful. We welcome any suggestions or comments regarding our High School Education program and resource guide.

Please share your thoughts at [www.donateLIFeCalifornia.org/feedback](http://www.donateLIFeCalifornia.org/feedback).



[www.donateLIFeCalifornia.org](http://www.donateLIFeCalifornia.org)  
[www.doneVIDAcalifornia.org](http://www.doneVIDAcalifornia.org)

For more information, please call 866-797-2366