

Concepts

- Organs and tissues can be transplanted from a donor to a recipient.
- Becoming a donor is a voluntary process that requires making an informed decision and registering one's intention to be a donor by signing a donor card, completing the donation section of a driver's license application, or joining a donor registry.
- Because a donor's family may be asked to consent to organ and tissue donation, it is more likely that a donor's intentions will be carried out if the donor has shared his or her intentions with family members.
- Organs and tissues can be provided by deceased donors. Most organs are provided by donors who have been pronounced brain dead.
- Living donors can donate bone marrow, a kidney, and parts of a liver, lung, or intestine.
- For the best chance of a successful organ transplant, the donor's and recipient's tissue types need to match as closely as possible.
- Rejection is the response of the recipient's immune system when the tissue type of the donated organ does not exactly match the tissue type of the recipient. The immune system thinks the organ is a foreign object to be attacked.
- A computerized database matches donors with recipients. Names of potential recipients are stored as a waiting list on the database.

Overview

After a warm-up discussion, students view a video about organ and tissue donation. Students then discuss the process of donation and reflect in writing on their views about donation and whether they wish to be an organ and tissue donor. As a homework assignment, students are encouraged to use this reflective piece to share their wishes with their families.

Instructional Objectives

Students will show an understanding of the process of organ and tissue donation by—

- discussing their questions and concerns after viewing a video about donation.
- reflecting in writing on their views about donation and discussing their wishes with their families.



Materials

For the class:

Video: *Share Your Life. Share Your Decision*

Alternate Video: *Medicine's Modern Miracle*

For each student:

1 copy of Ways to Indicate Your Donation Decision* (4.1)

1 copy of Organ and Tissue Donation: True or False* (4.2)

1 copy of Letter to Parent or Guardian* (4.4)

For the teacher:

True or False Answer Key* (4.3)

*Black-line master provided

NOTE: The issue of organ and tissue donation is an important one. Therefore, while the core activity is designed to be done in one 45-minute class period, you are strongly urged to consider spending two 45-minute periods or one block schedule period on it. This extra class time would accommodate a fuller discussion of students' questions and concerns and would allow the reflective piece to be done in class rather than as homework.

Choice of Lesson Plan

This core lesson educates students about organ and tissue donation with the two-fold goal of helping them make an informed decision about whether to become an organ and tissue donor *and* encouraging them to share their wishes with family members. The lesson is designed for one 45-minute lesson—with or without activities outside of class. However, the design of the guide permits students' study of organ and tissue donation to be expanded over additional lessons in a variety of curriculum areas, as their interest or available time and curriculum allows.

The flowchart at the beginning of this section outlines some paths through the materials in this guide. If you choose to use some of these additional lessons, allow enough class time for the closing activity of this lesson in which students complete a reflective piece—a letter to their parents/guardian—outlining their views on being an organ and tissue donor. To complete this closing activity, students take this letter home to help them discuss their wishes with family members.

Preparation

1. Visit the web and obtain information on the methods your State or area provides to register a decision to be a donor. These may be a donor card, an indication of your decision to donate on your driver's license application, or a donor registry. Your local organ procurement organization is the best source of this information. Locate them at www.organdonor.gov/OPO.htm.
2. Familiarize yourself with the information in the **Background** section. You may wish to copy some of these materials for your students for use either in the post-video discussion or as additional reading and homework materials. The following icons (located at the top of the first page of each component of the materials) indicate different lesson settings or curriculum areas in which these materials might be particularly appropriate:



Drivers Education



Biology / Science



Social Studies



Health



Mathematics



English

NOTE: Many of the materials are suitable for use in a number of different subject areas and are therefore designated with more than one icon.

3. Also review the materials in the next section—**Supplementary Materials**—for suggestions on how those materials can be integrated into the lessons in this guide and your curriculum. The supplementary materials are provided as black-line masters to allow them to be used as handouts.
4. Links to an on-line version (in PDF format) of all materials provided in this guide are found on the web at www.organdonor.gov. Some of these materials are provided in an interactive format. (See **Web Activities and Resources**.)

Warm-up

Inform students that they will be exploring the topic of organ and tissue donation. Distribute copies of **Ways to Indicate Donation Decision**. Explain that all States offer some method of signing up to be an organ and tissue donor on a donor card or a driver's license and many offer other methods such as a donor registry. Be prepared to show an example of the methods used in your State or area. Most State laws allow a minor over a certain age (for example, 16) to declare an intention to be a donor. Explain to students that your State may require additional steps for minors often involving the consent and signature of a parent or guardian.

Preassessment

Distribute a copy of **Organ and Tissue Donation: True or False** to each student and use it to conduct a brief review of what students know about donation and what they would like to learn. Do not provide correct answers and avoid comment on student responses at this time. The video and other materials address the accuracy of most of these statements. An answer key for these statements is provided and can be used during the post-video discussion to address student misconceptions about organ and tissue donation.

If you are devoting more than one 45-minute period to this core lesson, consider using the **Brainstorm Alternative** outlined after the Homework section to facilitate a more thorough discussion of students' questions and concerns.

Using the Video

1. Show the video. Ask students to pay particular attention to information that addresses statements on **Organ and Tissue Donation: True or False**. If time permits, consider stopping the video to review information that addresses each item.

Video: *Share Your Life. Share Your Decision* (16 minutes) This video explores issues facing those waiting for organ transplants and the experiences of a family who donated their loved one's organs and tissues. As this video is slightly shorter, it is a probably the best choice if you are only spending one lesson on this topic or if the topic is being taught in a class other than biology.

Alternate Video: *Medicine's Modern Miracle* (23 minutes) This video may be more appropriate for students already familiar with the issue or for use in a biology lesson, as it contains more information on the science behind the process of organ and tissue donation and transplantation. (Follow-up questions to this video are included in the **Supplementary Materials**.)

NOTE: Your local OPO is an excellent resource for information on laws in your State regarding a minor's declaration of donation wishes. Locate your OPO at www.organdonor.gov/OPO.htm.

NOTE: If you are expanding this core activity over more than one 45-minute period, consider showing the alternate video provided. A short description of each video is provided, but consider watching both to help you choose the more appropriate video for your class.

NOTE: Some of students' questions or concerns may not be addressed by the video. You might consider having students use the resources of www.organdonor.gov to address any of these unanswered issues or to reinforce those that have been addressed.

2. At the end of the video, have students review their copy of **Organ and Tissue Donation: True or False**. Ask what information the video provides that answers questions or concerns they have about donation. Sample responses elicited by the video may include the following:

- There are tens of thousands of people on the waiting list for organs.
- Only after every effort is made to save a life and the individual is dead can the donation process begin.
- Organs need to be an appropriate size match.
- Blood types of an organ donor and recipient must match.
- Confidentiality is provided for donors and recipients.
- Most organs are provided by donors that are deceased. The most common exception is the kidney, which can be donated by a living donor.
- Brain dead means the person's brain can never function again, even though the body's organs can be kept functioning for a short time by a machine.
- Organ and tissue donation helps not only the recipient, but also the recipient's friends and families.
- Incisions made for organ and tissue removal can be covered by clothing so that an open-casket funeral is still possible.
- Even if one signs a donor card, indicates one's wishes on a driver's license, or joins a donor registry, the decision to become a donor should still be shared with family members so they can promote the individual's wishes at his or her time of death.

3. If you are devoting additional class time to this important topic of organ and tissue donation, use additional lessons and resources provided in this guide before conducting the closing activity with your class.

Closing Activity

Use this reflective activity to bring the class work on organ and tissue donation to a close. If you have spent a number of periods studying the topic, this activity should be the last one you conduct with your students.

Reflective Piece

1. Have students work alone or with a partner to reflect on what they have learned in order to assess their current feelings and attitudes toward organ and tissue donation. Have students write a few sentences—on the **Letter to Parent/Guardian** or other format you suggest—indicating whether they would be willing to donate their organs after their death and the reasons behind their decision. Explain to students that they can use this letter to help them share their wishes with their family. Emphasize that whether they use the letter or not, sharing their decision in some way with their family maximizes the likelihood that their wishes will be carried out.
2. Explain to students that in the near future they may be asked whether they wish to be an organ and tissue donor—for example when they apply for, or renew, a driver’s license—and they will need to make an informed decision. Distribute a donor card to each student, and suggest that they keep this card as a reminder to share their wishes with their families. Explain to students that if they decide to become donors and have discussed their wishes with family members, they can finalize their decision by filling out the donor card, indicating their intention on their driver’s license, or joining a donor registry if there is one in their State or area.

Homework

While continuing to respect the anonymity of each student’s choice, again stress to students the importance of discussing their wishes with family members. Explain that their homework assignment is to use their letter to share their donation intentions with their families. Consider sending appropriate information home with students to help them inform their family members about donation—for example, materials from **Common Questions and Misconceptions**.

As you conclude your lesson on organ donation, encourage students to visit www.organdonor.gov to find out more about organ and tissue donation. This Website sponsored by the U. S. Department of Health and Human Services provides information on how your students can obtain donor cards and links to the OPO in your State or area. Your local OPO is the best source of information about ways to document donation intentions in your area or State. Donor cards can also be obtained by contacting the Division of Transplantation, Health Resources and Services Administration, at 301-443-7577.

NOTE: If you have only one 45-minute period for teaching this subject, you could have students do this reflective piece as a homework assignment.

NOTE: The decision to be a donor is a personal one. To ensure students’ privacy and anonymity on this subject, this reflective activity should be a private one and students should not be asked to read aloud or to hand in this letter. It is intended for their use only.

NOTE: This brainstorm exercise can be used in place of the True or False handout.

Brainstorm Alternative

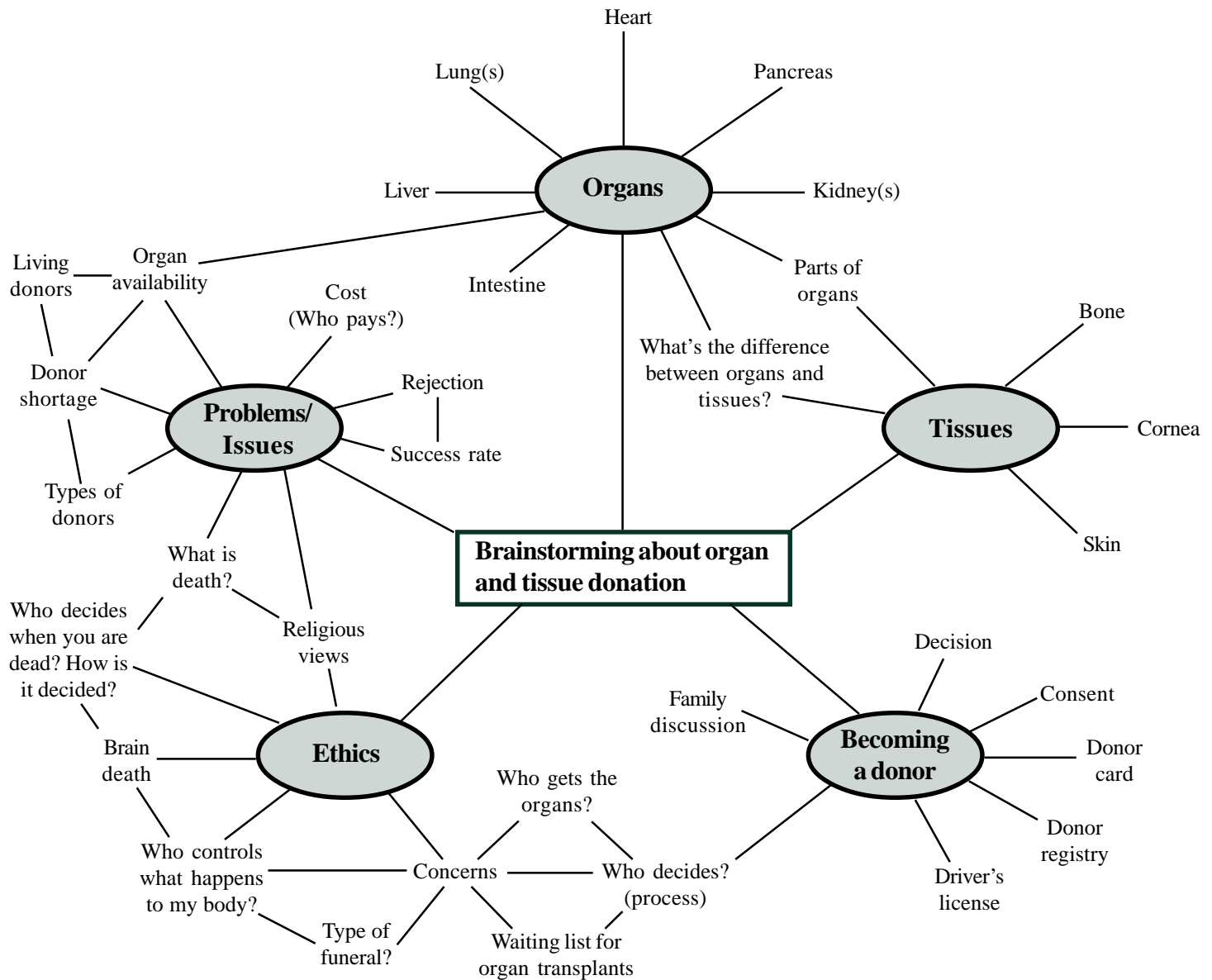
1. Give students a few minutes to work in groups of two to four to discuss and then contribute to a list of things they—

- already know about organ and tissue donation.
- would like to find out about organ and tissue donation.

2. Conduct a brief brainstorm session by having students share their ideas and questions about the topic. You may need to use a few guiding questions to stimulate the brainstorm process. Sample questions could include the following:

- What is an organ and what is a tissue?
- Why are organs and tissues needed?
- What do you know about organ and tissue donation?
- Which organs and tissues can be donated?
- Where do these organs and tissues come from?
- Who (or what) decides whether a patient receives a transplant? Waiting list, money, fame?
- How successful are transplants?
- Why are some organ transplants not successful?
- Can anyone be a donor?
- What concerns do you have about becoming a donor?
- What steps can you take to maximize the chances that your organs and tissues will be donated?

3. Solicit and record all different responses on a chalk or whiteboard, overhead transparency, or newsprint. As students contribute their ideas, try to arrange their responses in the form of a map or a series of lists. An example of such a brainstorm map is provided. All student ideas should be accepted in this brainstorm session. Avoid comment on the responses at this time. The map or lists can be used during the discussion after the video to identify and address student misconceptions about organ and tissue donation.




When conducting a brainstorm session with your students, try to arrange their knowledge, ideas, concerns, and questions about the organ and tissue donation process into a brainstorm map like the one above. Refer back to your class’s brainstorm map when discussing the topic later in the lesson. Students can then see whether they have extended their knowledge and understanding of organ and tissue donation. (Do not expect your students’ brainstorm map to be as complex as this example.)


4. Show video. Refer to step 2 of Using the Video for a list of sample responses that should be emphasized in class discussion after watching the video.
5. At the end of the video, display the brainstorm map or lists. Ask students for suggestions for revising the map or lists based on what they learned in the video. Make the revisions as they respond.
6. As time permits, use the revised brainstorm to facilitate a class discussion on what students have learned about organ and tissue donation and transplantation.

Ways to Indicate Your Donation Decision

Organ and Tissue Donor Card



Organ/Tissue Donor Card



I wish to donate my organs and tissues. I wish to give:

any needed organs and tissues
 only the following organs and tissues:

Donor Signature _____ Date _____

Witness _____

Witness _____

STATE DRIVER'S
PERMIT / LICENSE
APPLICATION

Last Name: _____ Date of Birth: / / _

First Name: _____ Social Security #: _____

Address: _____

Do You Wish to Become an
Organ Donor?

Yes No

Driver's Permit / License Application

Donor Registry



4.2 Organ and Tissue Donation: True or False?

	True	False	Not sure
1. Organ transplants are rarely successful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If doctors see that I am a donor, they will be less likely to save my life in the event of an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Americans overwhelmingly support organ and tissue donation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Organs and tissues from one donor can save the lives of several recipients and help many others return to normal, healthy lives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. An organ and tissue donor cannot have an open casket at his or her funeral.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Wealthy people are more likely than the average person to receive donated organs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Numerous religions prohibit organ and tissue donation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. There is always a chance that a person who is brain dead will survive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Individuals can choose which organs and tissues they would like to donate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The United States is the only country in the world in which organ and tissue transplants are performed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	True	False	Not sure
1. Organ transplants are rarely successful.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. If doctors see that I am a donor, they will be less likely to save my life in the event of an emergency.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Americans overwhelmingly support organ and tissue donation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Organs and tissues from one donor can save the lives of several recipients and help many others return to normal, healthy lives.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. An organ and tissue donor cannot have an open casket at his or her funeral.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Wealthy people are more likely than the average person to receive donated organs.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Answers Explained

- 1. False.** The average one-year survival rate for people receiving a transplant of a heart, kidney, lung, or liver ranges from 75 to 95 percent depending on which organ transplant they receive.
- 2. False.** Doctors always try to do everything possible to save a life. Organ and tissue donation only becomes a consideration when a person has been pronounced dead.
- 3. True.** The most recent Gallup Poll on organ donation (1993) found that 85 percent of Americans support organ and tissue donation.
- 4. True.** Organs and tissues from one donor can save or enhance the lives of 50 or more recipients.
- 5. False.** Surgery to remove the organs and tissues is done in such a way that people who donate organs and tissues can be given an open-casket funeral. Incisions made to remove organs and tissues can be covered by clothing.
- 6. False.** In the United States, the allocation of donated organs to people on the waiting list is based solely on medical and scientific criteria with no regard to wealth or connection. In addition, it is illegal to buy or sell human organs in the United States.
- 7. False.** A large majority of world religions actively support organ and tissue donation.
- 8. False.** Brain dead individuals are dead; they cannot recover.
- 9. True.** Donors are able to indicate by way of a donor card or donor registry which organs and tissues they would like to donate.
- 10. False.** Many countries throughout the world conduct organ and tissue transplants and have conducted research furthering the medical knowledge of transplantation.

Dear (Parent/Guardian):

During _____ class, I learned about organ and tissue donation and transplantation. An important part of the lesson was the need for me to share my wishes about donation and transplantation with you. As members of my immediate family, you may be asked for your consent to donate my organs and tissues. Discussing donation with you will enable you to understand and support my wishes as I have written below.

My feelings are as follows:

_____ I **WISH** to be an organ and/or tissue donor.

_____ I **DO NOT** wish to be an organ and/or tissue donor.

_____ I am not sure at this time.

I'd also like to know how you feel about this subject and to talk with you about your wishes.

Signature _____ Date _____

