

Pig Heart Transplant

Part 1 Vocab Preview *Try to infer the meaning of the underlined words before you watch the video.*

1. Organ transplants were a revolutionary new procedure 80 years ago.
2. The woman was diagnosed with terminal cancer.
3. You are not eligible for this student loan if your GPA is below 3.0 (a B average).
4. His heart started beating much faster.
5. She took a big leap of faith when she quit her job and bought a small farm.
6. Many people are worried about consuming too much genetically-modified food.

Part 2 Comprehension *Decide if each statement is true or false.*

1. T / F This is the first time a pig heart has been put into a human body.
2. T / F Bennett was too old to be eligible for a human heart transplant.
3. T / F Bennett had six months to live.
4. T / F The pig heart used for the transplant was genetically-modified.
5. T / F Three days after the surgery, the pig heart was still beating.
6. T / F Bennett hoped that doctors could learn something even if the procedure failed.
7. T / F Doctors hope xenotransplantation can reduce the cost of organ transplants.
8. T / F Chimpanzee heart valves are already widely used in medical procedures.

Part 3 Discussion *Discuss these questions with your group.*

1. What are your initial thoughts and feelings about the pig heart transplant procedure described in the article?
2. David Bennett died of heart failure two months after this procedure. Doctors say that his death was caused by other factors, not his heart transplant. Would you still call this surgery a success?
3. In 1988, David Bennett was convicted of stabbing a man seven times, leaving him paralyzed. That man died in 2006. Does this change your view of the story? How?
4. More than 10,000 Americans are on the national waiting list for an organ transplant. 17 people in the U.S. die each day waiting for an organ transplant. Do you think Bennett was a good choice for this procedure?
5. Do you think someone's past should be considered when deciding who to provide medical care to?
6. Bennett had a choice of probable death within six weeks or getting an experimental pig heart transplant. Which would you choose if you were in his position? Why?
7. The story mentions that pig organ transplants have been more successful than transplants from other animals. Why do you think this is so?
8. Is it ethical to raise animals for transplantations to save human lives? Why? Why not?
9. How do you think society's views on animal rights and welfare should be considered when developing and implementing xenotransplantation procedures?

Part 4 Sentence Building Write sentences about the video clip using the words given. You can change the word form or add words, but you cannot change the word order.

E.g. David / Bennett / diagnose / terminal / heart / disease / and / have / less / six / month / live

David Bennett was diagnosed with terminal heart disease(,) and (he) had less than six months to live.

1. he / too / sick / eligible / human / heart / transplant / leaving / him / few / option
2. doctor / Baltimore / offer / Bennett / chance / survival / by / replace / heart / pig / heart
3. procedure / consider / medical / leap / faith / as / outcome / uncertain
4. pig / heart / genetic / modified / reduce / risk / rejection / by / Bennett / immune / system
5. three / day / after / surgery / heart / still / beat / and / Bennett / alive
6. in / U.S. / there / critical / shortage / organ / available / tradition / human / human / transplant
7. if / xenotransplantation / prove / success / long / term / it / could / potential / address / critical / shortage
8. previous / attempt / animal / human / transplant / with / chimpanzee / kidney / and / baboon / heart / not / successful / more / few / months
9. pig / organ / show / more / promise / with / pig / heart / valve / already / be / use / medical / procedure

Script

You're looking at a medical first. A revolutionary transplant of a pig's heart into a person.

We didn't know what the outcome might be, but it wasn't going to be worse than traditional therapy.

57-year-old David Bennett had no other option. Diagnosed with terminal heart disease, he was too sick to be eligible for a human donation. With less than six months to live, doctors in Baltimore offered him a medical leap of faith.

It was very difficult for him to make this decision. But at the end of the day, this was his best hope of getting out of the hospital and having somewhat of a normal quality of life.

The transplant involved a heart from a genetically-modified pig with some of its own genes deleted and human genes added to reduce the risk of rejection.

We wouldn't give him a worse outcome, and we had a chance perhaps of striking the good one. He himself said I want to live, and if I don't, you'll learn something.

Three days after surgery, the heart is still beating. Bennett is alive.

Transplantation has always been conducted in the context of an organ shortage.

Dr. David Claussen works with Eunos, which coordinates organ sharing in the U.S. If proven, xenotransplantation could ease the critical shortage of donors.

It is an important step, but it still is only a first step and there will be, you know, a long journey ahead to see this through.

Animal to human transplants have been tried before. Chimpanzee kidneys. A baboon heart. None successful for more than a few months.

Pig organs show more promise. Heart valves from pigs are already widely used. In fact, Bennett received one of those more than a decade before his heart transplant.

He realizes the magnitude of what was done, and he really realizes the importance of it.

One man's decision to risk it all has offered hope to thousands that life-saving transplants might one day not involve a life-or-death wait.

Jackson Prosko, Global News, Washington.

Answers

Part 2

1. T / F This is the first time a pig heart has been put into a human body.
2. T / F David Bennett was too old to be eligible for a human heart transplant.
3. T / F David Bennett had six months to live.
4. T / F The pig heart used for the transplant was genetically-modified.
5. T / F Three days after the surgery, the pig heart was still beating.
6. T / F David Bennett hoped that doctors could learn something even if the procedure failed.
7. T / F Doctors hope xenotransplantation can reduce the cost of organ transplants.
8. T / F Chimpanzee heart valves are already widely used in medical procedures.

Part 4 *These are the most natural answers. Some other variations may be possible.*

1. He was too sick to be eligible for a human heart transplant, leaving him with few options.
2. Doctors in Baltimore offered Bennett a chance [at/of] survival by replacing his heart with a [pig/pig's] heart.
3. The procedure was considered a medical leap of faith, as the outcome was uncertain.
4. The [pig/pig's] heart was genetically-modified (in order) to reduce the risk of rejection by Bennett's immune system.
5. Three days after the surgery, [the/his] new heart was still beating, and Bennett was alive.
6. In the U.S., there is a critical shortage of organs available for traditional human-to-human transplants.
7. If xenotransplantation proves successful (in the) long term, it could potentially address this critical shortage.
8. Previous attempts at animal-to-human transplants with chimpanzee kidneys and baboon hearts were not successful for more than a few months.
9. Pig organs [have shown/show] more promise, with pig heart valves already being used in medical procedures.