

Xenotransplantation: Why the first pig-to-human kidney transplant was a momentous event

Surgeons in New York City successfully attached a pig kidney to a human patient and watched the pinkish organ function normally for 54 hours. While such procedures have been done in nonhuman primates, this is the first time that a pig kidney has been transplanted to a human body and not been immediately rejected.

The procedure, [announced in a news conference](#) October 21, marks progress toward the goal of drastically expanding the supply of life-saving organs. Millions of people around the world are waiting for donated organs, many of which never come.

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"We're never going to satisfy the organ shortage problem with human organs," says John Scandling, a nephrologist at Stanford University who wasn't involved in this research. "There's a limit to the number of deceased donor organs that are viable," and too few donations from living people.

In the United States, over 100,000 people are on the national transplant waiting list, about 90 percent of whom need a kidney. But in 2019, less than 40,000 transplantations occurred. About [17 people die each day](#) while waiting for an organ, according to the Health Resources & Services Administration.

Scientists have long sought to solve this shortage by using animal organs, a field known as xenotransplantation.

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