

Penis operation highlights past, future of organ transplants

May 16 2016, by By Lindsey Tanner



In this Dec. 20, 2013, file photo, double hand transplant recipient, Lindsay Aronson Ess, works on her dexterity during a physical therapy session in Richmond, Va. Hand and/or arm transplants have been done in more than 85 people globally, according to Johns Hopkins Medicine, a leading transplant center. (AP Photo/Steve Helber, File)

Add one remarkable case to the 30,000-plus organ transplants expected to be performed nationwide this year: A cancer patient who received a donor penis.

Worldwide, there have been faces, tongues, hands, legs, uteruses—and

now the third penis transplant, a first in the U.S. Could any body part be left to transplant? Research is ongoing for eyeballs and an Italian doctor has raised eyebrows with talk of a brain transplant.

Still, the vast majority of operations involve more conventional organs.

Since the nation's first successful human organ transplant in 1954, involving a kidney, more than 700,000 organ transplants have been done nationwide. Kidneys are the most commonly transplanted organ—almost 18,000 U.S. operations were done last year, followed by livers—about 7,000, and hearts—nearly 3,000, according to the United Network for Organ Sharing.

Some of the more rare transplants:

FACE

Since the world's first face transplant in France in 2005 on a woman mauled by family dog, about 30 more have been done. These include a 26-hour operation last August at NYU Langone Medical Center on a Mississippi firefighter whose face was charred in a fire. Other U.S. cases include a Connecticut woman who got a new face after a 2009 attack by a friend's chimpanzee.



In this Feb. 24, 2016, photo provided by Cleveland Clinic Center, a team of Cleveland Clinic transplant surgeons and gynecological surgeons perform the nation's first uterus transplant during a nine-hour surgery in Cleveland. The first U.S. uterus transplant failed shortly after the Feb. 24 operation at the Cleveland Clinic, but others are planned. Over a dozen have been done worldwide, said Dr. Vijay Gorantla, medical director of the University of Pittsburgh reconstructive transplant program. (Cleveland Clinic Center via AP, File)

UTERUS

The first U.S. uterus transplant failed shortly after the Feb. 24 operation at the Cleveland Clinic, but others are planned. About 14 have been done worldwide, said Dr. Vijay Gorantla, medical director of the University of Pittsburgh reconstructive transplant program. These include a 2013 operation in Sweden resulting in the first reported live birth from a transplanted uterus.

HAND AND ARM

Hand and/or arm transplants have been done in more than 85 people globally, according to Johns Hopkins Medicine, a leading transplant center. Its patients include the first U.S. soldier to survive losing all four limbs in the Iraq War, who had a double-arm transplant in 2013.

Gorantla said the first U.S. patient, a New Jersey man injured in a firecracker accident, still has total use of his donor hand 17 years after an operation at Louisville's Jewish Hospital.

LEG



In this May 13, 2016 photo provided by Massachusetts General Hospital, Thomas Manning gives a thumbs up after being asked how he was feeling following the first penis transplant in the United States, in Boston. The organ was transplanted from a deceased donor. (Sam Riley/Mass General Hospital via AP)

Only three total leg-foot operations have been done worldwide, Gorantla said, but the operations are still experimental. U.S. centers researching the procedure include Brigham and Women's Hospital in Boston, where doctors say potential candidates could include amputees injured in the 2013 Boston Marathon bombings.

TONGUE

Tongues have been transplanted in total face transplants and in at least one case, alone in an Austrian patient with mouth cancer.

FUTURE

Gorantla and his team have a \$1 million-plus military grant to establish the nation's first whole eyeball transplant program, with injured veterans among the potential candidates. He calls this the "holy grail" in transplant medicine, but the operations would be tricky because they would require regenerating the optic nerve, which sends signals to the brain. Success in animal research suggests the procedure will work in humans, he said.

A doctor in Italy has talked of attempting human head and brain transplants but that raises complicated ethical issues and many mainstream scientists are skeptical.

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