

Johns Hopkins performs first total penis and scrotum transplant in the world

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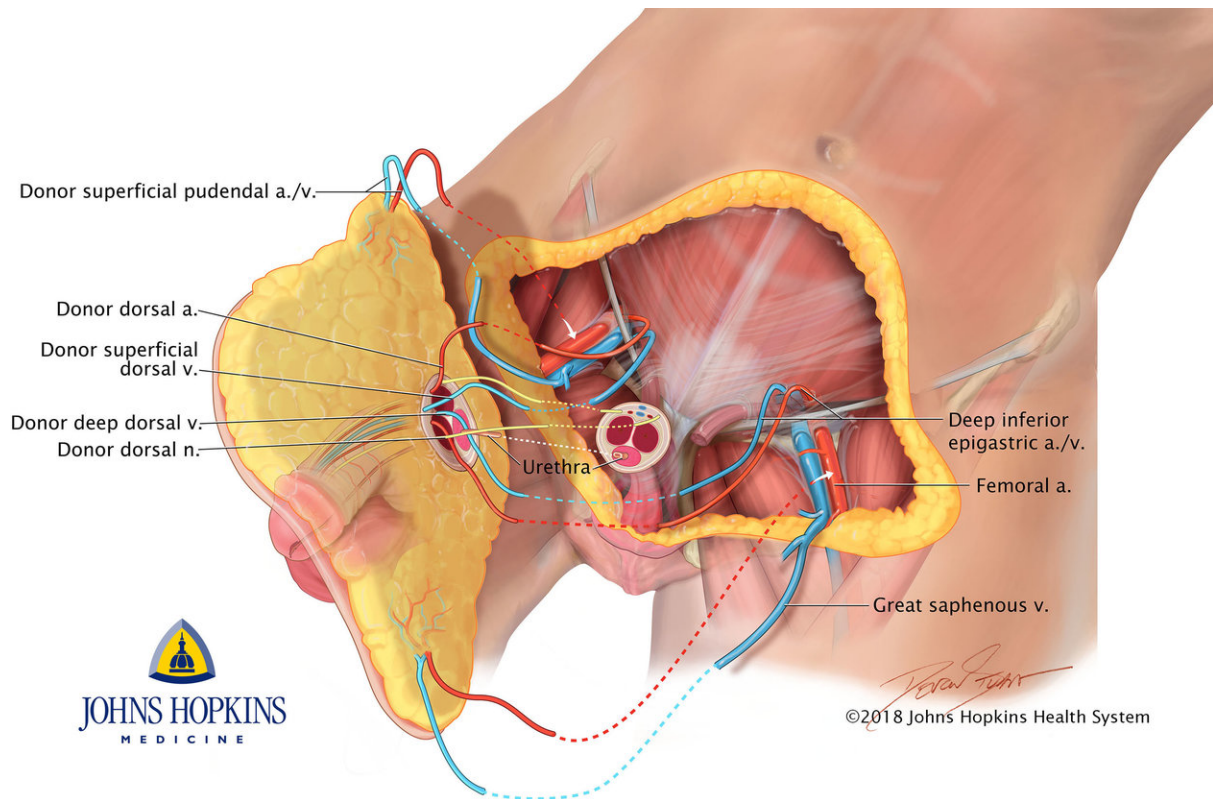


Diagram of the penis transplant. Credit: Devon Stuart for Johns Hopkins Medicine

Many soldiers returning from combat bear visible scars, or even lost limbs, caused by blasts from improvised explosive devices, or IEDs.

However, some servicemen also return with debilitating hidden injuries—the loss of all or part of their genitals. Now, the Johns Hopkins reconstructive surgery team that performed the country's first bilateral arm transplant in a wounded warrior has successfully performed the first total penis and scrotum transplant in the world.

"We are hopeful that this transplant will help restore near-normal urinary and sexual functions for this young man," says W.P. Andrew Lee, M.D., professor and director of plastic and reconstructive surgery at the Johns Hopkins University School of Medicine.

A team of nine plastic surgeons and two urological surgeons was involved in the 14-hour surgery on March 26. They transplanted from a deceased donor the entire penis, scrotum (without testicles) and partial abdominal wall.

"It's a real mind-boggling [injury](#) to suffer, it is not an easy one to accept," says the recipient who is a veteran who sustained injuries in Afghanistan and wishes to remain anonymous. "When I first woke up, I felt finally more normal... [with] a level of confidence as well. Confidence... like finally I'm okay now," he says.

The recipient is a veteran who sustained injuries in Afghanistan and wishes to remain anonymous. He has recovered from the surgery and is expected to be discharged from the hospital this week.

While it's possible to reconstruct a penis using tissue from other parts of the body, says Lee, a prosthesis implant would be necessary to achieve an erection, and that comes with a much higher rate of infection. Additionally, due to other injuries, servicemen often don't have enough viable tissue from other parts of their bodies to work with.

This type of [transplant](#), where a body part or tissue is transferred from

one individual to another, is called vascularized composite allotransplantation. The [surgery](#) involves transplanting skin, muscles and tendons, nerves, bone and blood vessels. As with any [transplant surgery](#), [tissue rejection](#) is a concern. The patient is put on a regimen of immunosuppressive drugs to prevent rejection. Lee's team has developed an immune modulation protocol aimed at minimizing the number of these drugs needed to prevent rejection.

Provided by Johns Hopkins University School of Medicine

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