

# EDUCATION CORNER

## Uterus Transplantation

### Paving the way

- The first successful uterus transplants were performed in Sweden.
- They have resulted in five live births to date and the uteri came from living donors.
- About a decade of research and clinical trial collaboration has occurred between the Swedish team and the Cleveland Clinic.

### A first in the U.S.

The first U.S. uterus transplant was performed in February of 2016:

- The Cleveland Clinic is administering the U.S.'s first clinical trial of uterus transplantation for reproductive age women with Uterine Factor Infertility (UFI).
- UFI: pregnancy is impossible due to being born without a uterus, uterus having been removed, or uterus non-functioning; affects 3 to 5 million women worldwide.
- 10 participants (age 21-29 with UFI) are planned for the clinical trial.
- The uterus transplant is intended to be a temporary transplant to allow a woman her only opportunity to carry a pregnancy
  - The uterus would remain in situ for 1-2 pregnancies after which anti-rejection medications would be discontinued and the uterus removed or allowed to disintegrate.
- The first transplant at the Cleveland Clinic, lasted more than 9 hours.
- Soon after the transplant, the uterus was removed following a sudden complication due to an infection that affected blood supply to the organ.

### How Uterus Transplantation Works

The planned uterus transplantation process:

- Recipient candidate screening and selection.
- Donor identification: age 18-40 with a healthy uterus.
- Recipient IVF initiated; 6-10 embryos frozen.
- Anti-rejection meds initiated; donor uterus and blood supply transplanted.
- Uterus heals after 12 months; embryos implanted one by one.
- Anti-rejection drugs given throughout pregnancy; monthly cervical biopsies performed to monitor for rejection.
- Baby delivered by C-section; anti-rejection meds halted after 1-2 babies.
- See Cleveland Clinic's [infographic](#) for more facts about uterus transplant.
- Read [Q & A](#) with lead surgeon Dr. Andreas Tzakis
- Watch animation video ([click on image](#))



### References:

Cleveland Clinic

<http://www.clevelandclinic.org/lp/uterus-transplant/index.html>

*The Lancet, Livebirth after uterus transplantation (Feb 14, 2015)*

[http://www.thelancet.com/journal/s/lancet/article/PIIS0140-6736\(14\)61728-1/abstract](http://www.thelancet.com/journal/s/lancet/article/PIIS0140-6736(14)61728-1/abstract)

*The Denise Grady (March 9, 2016). First US Transplant Has Failed. The New York Times.*

Retrieved from

[http://www.nytimes.com/2016/03/10/health/first-uterus-transplant-in-us-has-failed.html?\\_r=0](http://www.nytimes.com/2016/03/10/health/first-uterus-transplant-in-us-has-failed.html?_r=0)

### What Now?

- Three additional programs reportedly plan to launch experimental uterus transplants: Baylor University Medical Center at Dallas, Brigham and Women's Hospital in Boston, and the University of Nebraska Medical Center in Omaha (*New York Times*)

This inservice is also available on The Alliance blog:

<http://organdonationalliance.org/education-corner-uterus-transplantation/>

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