Surgery Could Give Men Wombs of Their Own Within 5 Years

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November 17, 2015

Will men be able to give birth sooner than, well, never? *(Credit Yahoo Health/iStock)*

That's the question provoked by last week's announcement that the Cleveland Clinic is performing uterus transplant surgery on women who were born without a womb or whose uterus is diseased or malfunctioning. Hearing the news, we, and some of you, wondered: If science can transplant a uterus into a woman, can it transplant one into a man?

The answer is yes. Theoretically, men could receive a uterus, carry a baby to term, and give birth. But what really blew our minds is that the day of male pregnancy is closer than you'd think.

"My guess is five, 10 years away, maybe sooner," says Dr. Karine Chung, director of the fertility preservation program at the University of Southern California's Keck School of Medicine. Today, medical advances let transgender women adjust their biochemistry to suppress male and introduce female hormones, have breasts that can lactate, and obtain surgically constructed vaginas that include a "neoclitoris," which allows sensation.

Until now, however, a place to carry the fetus — a womb of its own — was a major missing link. Uterus transplants could conceivably surmount that hurdle.

"I'd bet just about every transgender person who is female will want to do it, if it were covered by insurance," says Dr. Christine McGinn, a New Hope, Pa., plastic surgeon who performs transgender surgeries on men and women and is a consultant to the new movie *The Danish Girl*, about one of the first recipients of sex reassignment surgery.

McGinn, a transgender woman and mother of twins, says the "human drive to be a mother for a woman is a very serious thing. Transgender women are no different."

Uterus transplants are still in the research stage for women suffering from uterine factor infertility (UFI). A Swedish team already has successfully transplanted uteri harvested from live donors and achieved five pregnancies and four live births. In the coming months, the Cleveland Clinic team plans to transplant uteri from deceased donors into UFI female patients.

Transplant surgery is difficult and dangerous, requiring patients to take antirejection drugs throughout their pregnancies, putting them at risk for infection. But for many women — and presumably for many transitioning women — the risk is worth the reward.

However, biological women have a leg up on biological males when it comes to accepting and nurturing a transplanted uterus. Women already have: vasculature needed to feed the uterus with blood, pelvic ligaments designed to support a uterus, a vagina and cervix, and natural hormones that prepare the uterus for implantation and support the pregnancy.

Men have none of those support systems — naturally — but none are impossible to create. "Male and female anatomy is not that different," says Chung. "Probably at some point, somebody will figure out how to make that work."

In fact, medical techniques already exist to overcome many obstacles to male pregnancy.

1. Hormone therapy can shut off testosterone and introduce progesterone and estrogen needed to prepare the uterus for pregnancy.
2. Even though males do not have uterine veins and arteries needed to nurture the womb, it's possible to attach a branch of a large vessel, like the internal iliac, to the uterus. "It's doable, it just hasn't been done," Chung says.
3. Although it's preferable for a vagina to support the uterus, it's possible to attach a transplanted uterus to other ligaments in the pelvis.

At the moment, the thorniest problem standing between men and pregnancy is transferring an embryo grown in vitro into the transplanted womb. The usual route for women undergoing fertility treatments is through the vagina and cervix and into the uterus. But since a uterus has never been transplanted into a biological male, techniques to connect a constructed vagina to a transplanted uterus have not been attempted. But Dr. Elliot Jacobs, a Manhattan plastic surgeon, says that theoretically, "Connecting the two is not a major surgical feat."

Perhaps the most insurmountable obstacle will be the economics: Transplants are wildly expensive, ranging from $25,000 for a corneal transplant to $1.3 million for a heart, according to the National Foundation of Transplants. We can't even begin to guess how much a uterus transplant will cost if the surgery makes it out of the research phase, and chances are slim that insurance companies will pay for it.

"It's a class issue; you'll only have wealthy people able to do this," says McGinn, who is featured in the documentary *TRANS*.

Also, transplanting uteri into men provokes ethical questions about long-term health outcomes for transplant recipients and subsequent children, and the benefit to society of using so many resources for men and women to experience the joy of birth.

"Are people going to want to do it? Yes," says Dr. Arthur Caplan, head of medical ethics at the NYU School of Medicine. "But I don't see making this a priority. In terms of making the best use of scarce resources, this won't get over the threshold."