



Artificial Womb

BY [Matias FitzGerald](#) and [Victoria Schultz](#)

Overview

[Slide 1: Artificial Womb](#)

[Slide 2: Overview \(this slide\)](#)

[Slide 3: History \(slide 1\)](#)

[Slide 4: History \(slide 2\)](#)

[Slide 5: Plans for Artificial wombs](#)

[Slide 6: Implementation](#)

[Slide 7: Pros to Artificial wombs](#)

[Slide 8: Cons to Artificial wombs](#)

[Slide 9: Summary](#)

[Slide 10: References](#)

History (slide 1)

[Back To Overview](#)

A team of researchers at the Children's hospital of Philadelphia was able to keep a baby lamb alive for four weeks in an artificial uterus. This took place on the year 2017. This was the first time a baby had been grown or spent anytime in a womb outside a female body.



Researchers from the Children's Hospital of Philadelphia were able to keep a baby lamb alive for four weeks in a womb-like thing. The lamb was in what they are calling an Artificial Womb; it resembled a real female sheep's womb. It grew, moved, breathed, and ate inside the womb. This was a big milestone in the year 2017, but it didn't come from nothing. This was the first time a baby was able to spend anytime outside a womb, and that is not including IVF because that process doesn't include living outside a female's womb.

History (slide 2)

[Back To Overview](#)

This was first imagined by Aldous Huxley in his novel from 1932. His book talking about a world where embryos are fertilized and grown in test tubes. In 1932 the first mention of an egg being fertilized outside of the womb was discussed in a discussion.

Other people have thought of the idea of an Artificial Womb. In 1932 Aldous Huxley wrote a book with the idea of embryos being fertilized and grown outside of the womb. In 1923 a discussion was held where they talked about the effects and understanding of what an Artificial womb would look like and work.

Plans for Artificial wombs

[Back To Overview](#)

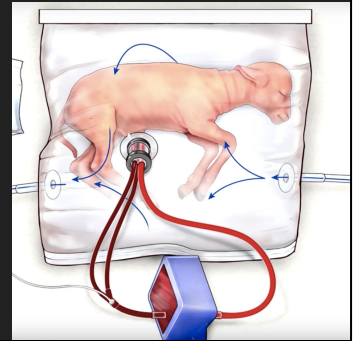
Currently artificial wombs are being tested only in mammals this is including lambs. Scientist are currently presenting their findings to the FDA trying them to greenlight a more complex test

To move forward with human testing, the company (called EXTEND) needs to get approval from the FDA. At a meeting in June, executives announced that they will be ready when the approval comes. To greenlight a trial, FDA officials need to be convinced that babies who try EXTEND are likely to benefit from the system, and that they'll fare at least as well as babies who receive the current standard of care.

Implementation

[Back To Overview](#)

Babies being born via an artificial womb would be submerged in artificial amniotic fluid in a clear bag called a “biobag.” This means that recruiters can watch in real time as the pregnancy progress occurs. The babies will be connected to an artificial umbilical cord that can deliver nutrients to the stomach just as it would in a normal pregnancy.



Rather than breathing air, babies in an artificial womb would have their lungs filled with lab-made amniotic fluid, that mimics the amniotic fluid they would have had just like they would in a traditional pregnancy

Pros to Artificial wombs

[Back To Overview](#)

- In 2022 only 30% of babies born at 22 weeks survived
- Artificial wombs will save many babies lives when born before they were ready
- This will allow the child to continue to grow outside the womb

The artificial womb will take the worry off of parents with newbie babies. And reduce the mental burden on the family, as scientists can be monitoring the baby 24/7

The artificial womb will take the worry off of parents with newbie babies. The parents won't have to see their child in intensive care and it will have a higher chance of survival. Another positive effect of the artificial womb is that it may reduce the risk of morbidity and mortality.

Cons to Artificial wombs

[Back To Overview](#)

- The technology will be very expensive and will add quite a big number to the parents hospital bills
- There would be a higher need for these Artificial Wombs meaning more space taken up in the hospitals.

As many pros the Artificial wombs have there's also a lot of grey area. And many people might find themselves asking do the pros out weight the con's?



As many pros the Artificial wombs have there's also a lot of grey area. There's expenses that would come from them and currently theres isnt 100% chance that the child will survive.

Summary

[Back To Overview](#)

Artificial wombs are machines that scientists are working on to grow babies outside of a mother's body. They could help with fertility issues and make pregnancy safer, but people are still arguing about whether it's a good idea or not.

References

[Back To Overview](#)

1. [On the History of the Artificial Womb - JSTOR Daily](#)
2. [Everything you need to know about artificial wombs | MIT Technology Review](#)
3. [Pros for Artificial womb](#).
4. [Cons for Artificial womb](#)
- 5.