It takes more than one

Why IVF patients often need multiple embryos to have a baby

Not all eggs fertilize

In human reproduction, a single egg is released during each menstrual cycle. While research shows that approximately 80% of those having unprotected sex over the course of a year will become pregnant, many more eggs will never fertilize or lead to a pregnancy, while some eggs that do fertilize do not implant in the uterus.

Many eggs fertilize but do not continue to grow and develop into an embryo

During the in vitro fertilization (IVF) process, usually only 70% of mature eggs fertilize, and of those fertilized eggs, only 50% continue to develop into a blastocyst which can be transferred into a uterus.

Even if fertilized eggs grow into embryos, not all embryos implant to create a pregnancy

It is estimated that, in people who have unprotected sex, only about half of fertilized eggs successfully implant into the uterus to initiate a pregnancy.[1] During the IVF process, fertilized eggs are cultured in the lab, and those that divide and develop to the blastocyst stage (achieved after 5 days and enough cell divisions so that there are around 60-80 cells) are further evaluated, in some cases using genetic testing. Of those that reach this stage, the embryos determined to have the best chance at resulting in a healthy pregnancy and live birth are transferred, one at a time, into the patient in hopes of establishing a pregnancy.

Transferring one embryo at a time is best medical practice

Advances in science and medicine have led to improved pregnancy outcomes over the last three decades. ASRM guidelines make clear that transferring one embryo – in hopes of it

developing into a single baby (or singleton) – is best practice. Even twin births significantly increase the risks of obstetrical complications, including maternal and fetal morbidities. Accordingly, ASRM practice guidelines in most cases recommend transferring a single embryo during an IVF cycle, and data shows this has successfully lowered the number of multiple gestations and led to healthier birth outcomes.

What happens to the other embryos?

Often, a patient will have more than one embryo that is suitable for transfer. At the patient's request, those embryos can be cryopreserved for future use. If the first transfer does not result in a birth, or if the patient desires additional children, the embryos will be available for their use. When a patient decides that their family building journey is complete, they can decide what will happen with the remaining embryos. Some patients choose to continue to store them. Some may opt to discard them. Some may choose to donate them for research. Some patients seek to donate them for use by another patient or couple seeking to have a child.

Patients must maintain the freedom to decide for themselves what happens to their embryos and their own genetic material. The government should not decide this for them.

[1]Jarvis, S. (2016), Clarifying the Scope of Conceptual Transfer. Language Learning, 66: 608-635. https://doi.org/10.1111/lang.12154