

"FIRST TEST-TUBE BABY-LOUISE BROWN"



On July 25, 1978, Louise Joy Brown, the world's first successful "test-tube" baby was born in Great Britain. Though the technology that made her conception possible was heralded as a triumph in medicine and science, it also caused many to consider the possibilities of future ill-use.

Previous Attempts

Every year, millions of couples try to conceive a child; unfortunately, many find that they cannot. The process to find out how and why they have [infertility](#) issues can be long and arduous. Before the birth of Louise Brown, those women who were found to have Fallopian tube blockages (approximately twenty percent of infertile women) had no hope of becoming pregnant.

Usually, conception occurs when an egg cell (ovum) in a woman is released from an ovary, travels through a Fallopian tube, and is fertilized by the man's sperm. The fertilized egg continues to travel while it undergoes numerous cell divisions. It then rests in the uterus to grow.

Women with Fallopian tube blockages cannot conceive because their eggs cannot travel through their Fallopian tubes to get fertilized.

Dr. Patrick Steptoe, a gynecologist at Oldham General Hospital, and Dr. Robert Edwards, a physiologist at Cambridge University, had been actively working on finding an alternative solution for conception since 1966. Though Drs. Steptoe and Edwards had successfully found a way to fertilize an egg outside a woman's body, they were still troubled by problems after replacing the fertilized egg back into the woman's uterus. By 1977, all of the pregnancies resulting from their procedure (about 80) had lasted only a few, short weeks.

Lesley Brown became different when she successfully passed the first few weeks of pregnancy.

Lesley and John Brown

Lesley and [John Brown](#) were a young couple from Bristol who had been unable to conceive for nine years. Lesley Brown had blocked Fallopian tubes. Having gone from doctor to doctor for help to no avail, she was referred to Dr. Patrick Steptoe in 1976. On November 10, 1977, Lesley Brown underwent the very experimental *in vitro* ("in glass") fertilization procedure.

Using a long, slender, self-lit probe called a "laparoscope," Dr. Steptoe took an egg from one of Lesley Brown's ovaries and handed it to Dr. Edwards. Dr. Edwards then mixed Lesley's egg with John's sperm. After the egg was fertilized, Dr. Edwards placed it into a special solution that had been created to nurture the egg as it began to divide.

Previously, Drs. Steptoe and Edwards had waited until the fertilized egg had divided into 64 cells (about four or five days later). This time, however, they decided to place the fertilized egg back into Lesley's uterus after just two and a half days.

Close monitoring of Lesley showed that the fertilized egg had successfully embedded into her uterus wall. Then, unlike all the other experimental *in vitro* fertilization pregnancies, Lesley passed week after week and then month after month with no apparent problems. The world began to talk about this amazing procedure.

Ethical Problems

Lesley Brown's pregnancy gave hope to hundreds of thousands of couples not able to conceive. Yet, as many cheered this new medical breakthrough, others were worried about future implications.

The most important question was whether this baby was going to be healthy. Had being outside the womb, even for just a couple of days, harmed the egg? If the baby has medical problems, did the parents and doctors have a right to play with nature and thus bring it into the world? Doctors also worried that if the baby wasn't normal, would the process be blamed whether or not it was the cause?

When does life begin? If human life begins at conception, are doctors killing potential humans when they discard fertilized eggs? (Doctors may remove several eggs from the woman and may discard some that have been fertilized.)

Is this process a foreshadowing of what is to come? Will there be surrogate mothers? Was [Aldous Huxley](#) predicting the future when he described breeding farms in his book *Brave New World*?

Success!

Throughout Lesley's pregnancy, she was closely monitored, including the use of ultrasounds and amniocentesis. Nine days before her due date, Lesley developed toxemia (high blood pressure). Dr. Steptoe decided to deliver the baby early via [Cesarean section](#).

At 11:47 p.m. on July 25, 1978, a five-pound 12-ounce baby girl was born. The baby girl, named Louise Joy Brown, had blue eyes and blond hair and seemed healthy. Still, the medical community and the world were preparing to watch Louise Brown to see if there were any abnormalities that couldn't be seen at birth.

The process had been a success! Though some wondered if the success had been more luck than science, continued success with the process proved that Dr. Steptoe and Dr. Edwards had accomplished the first of many "test-tube" babies.

Today, the process of *in vitro* fertilization is considered commonplace and utilized by infertile couples around the world.

ANSWER THE FOLLOWING QUESTIONS

1. Who is Louise Brown? 1mk
2. How long were the Brown's trying to conceive? 1mk
3. Explain the fertilization procedure Lesely Brown underwent. 3mks
4. What was different about Dr. Steptoe and Edwards' experimental in-vitro fertilization procedure with the Brown's compared to prior patients? 2mks
5. List some ethical problems associated with Lesely Brown's pregnancy? 3mks
6. What method of delivery did Dr. Steptoe use to deliver Louise? 1mk