

World Notes Fertility Treatment Progress

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By EMMA ROSS, AP Medical Writer

LONDON - Twenty-five years after the birth of the first test-tube baby, success rates have doubled, but the quest for parenthood remains frustrating and expensive for most infertile couples.

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The birth of Louise Brown on July 25, 1978, marked a revolution in fertility treatment. More than 1 million babies have been born through in vitro fertilization since Dr. Robert Edwards and Dr. Patrick Steptoe achieved their breakthrough in 1978 in Cambridge.

As Brown, a postal worker living in Bristol, England, celebrates her birthday Friday, fertility experts note the progress that's been made.

"It's always frustrating, but I think it has improved inordinately in the last 20 years," said Dr. Francoise Shenkin, a fertility expert from the University of London.

The average probability of an infertile couple taking home a baby after a cycle of IVF today is 1 in 5. That's about the same chance that healthy couples have of conceiving naturally each menstrual cycle, so fertility techniques have managed to restore the overall odds to normal, said Dr. Alison Murdoch, chairwoman of the British Fertility Society.

Even so, one out of every six couples struggle to become parents, and scientists have not yet been able to fix the biggest problem of all — a woman's age.

"We can't turn the clock back," Murdoch said. "It's a real tragedy when I get someone who comes along at 37 and they've been busy spending the last seven years of their lives getting the house right, getting the job sorted out and going on holidays and thinking 'OK, we'll have a family now,' and they've left it too late."

Although the specific cause of the infertility is a major factor, the mother's age has become the most important determinant of IVF success as many of the other hurdles have been overcome with scientific progress, experts say.

The success rate varies from clinic to clinic, but if the mother is under age 35 the chance of a baby per cycle is probably greater than 40 percent, according to fertility scientists. By age 45, however, that drops to less than 1 percent.

Researchers are trying to develop ways around the age problem — by egg freezing, by harvesting immature eggs and keeping them dormant until they are needed, and by creating artificial eggs from stem cells — but so far nothing major has panned out.

But there have been two key fertility breakthroughs:

The most spectacular achievement has been an offshoot of IVF called ICSI, or intracytoplasmic sperm injection. A single sperm is injected directly into the egg when the number and quality of sperm are low. The first birth from that procedure was in 1992.

Until that advancement, nothing could be done for infertility caused by bad sperm. However, some early studies indicate a slightly higher rate of birth defects with that procedure.

The second advancement is pre-implantation genetic diagnosis, which allows testing for genetic disorders early on. The technique is used to avoid devastating inherited diseases such as cystic fibrosis. But some doctors are also using it to determine whether a fertility patient — particularly an older one — is producing embryos with missing or extra chromosomes. Scientists believe pregnancies most often fail because of chromosome problems.

Doctors who use this procedure say it allows women to avoid the pain of going through repeated IVF cycles that haven't got a chance of success.

"Embryos that look so beautiful and embryos that we would have picked ... when you get the genetic results back, you can actually see that they may be abnormal," said **Dr. Lawrence Werlin, medical director at Coastal Fertility Medical Center in Irvine, California**. He said women who produce abnormal embryos once tend to keep on producing them.

"Although emotionally devastating ... it gives couples the ability to close a page in a book that's been difficult to close," Werlin said.

Shari Harvey, a high school teacher from Huntington Beach, Calif., knows the challenge — and success — of going through the IVF process. Now age 50, she had her first test-tube baby, Justin, at age 35, then conceived triplets — Clarissa, Cameron and Nathan — through IVF two years later. She also was fortunate in having her medical insurance cover it. She had lost her fallopian tubes because of three ectopic pregnancies, a dangerous condition in which the embryo starts growing in the tubes.

Without the insurance coverage, she would not have been able to pursue IVF, she says. The cost of an IVF cycle varies dramatically around the world. In Britain, Denmark and other European nations, it's free, while in the United States, it costs on average more than \$12,000.

Even with her expenses covered, Harvey says, "I don't know how many times I would have hung in there as so many women do."

She had Justin on her second attempt at IVF and the triplets on her first try.

"There's something you need to do every day, whether it's go have blood drawn or a hormone shot," she said in an interview. "It's such an all-consuming thing that it's emotionally draining."