Thirty years of IVF

The Strong Fertility Center has been on the front lines of the many changes over the years.

By Nancy O'Donnell

Three decades ago, the science of in vitro fertilization faced hurdles from all sides. There were the technological challenges, but also the societal ones. The world’s first “test-tube baby” in 1978 sparked an intense ethical debate about what was and wasn’t “natural” and whether we were ushering in an era of “producing” babies instead of conceiving them.

The University of Rochester Strong Fertility Center was the first in vitro fertilization (IVF) center in upstate New York, so Rochester became part of the debate. IVF practices were condemned by the Vatican as “illicit and in opposition to the dignity of procreation and conjugal union,” and in February 1983—the year Strong Fertility Center opened—Bishop Matthew Clark criticized IVF in an article in the Diocese’s Courier-Journal newspaper.

Bishop Clark noted not only the procedure of discarding unused embryos but also the cost of the procedure. He argued that the expenditure instead “should be invested in helping childless couples to adopt the children of those who cannot afford to bear and or keep them.”

Much has changed since those days. The stigma surrounding IVF has faded as dramatically as the science has evolved (including the freezing of embryos, which helped address at least one of the church’s complaints).

As the Center celebrates its 30th anniversary, it can look back on how far it has come. It can also look back at the true heart and soul of IVF: The people who enter into the intense physical and emotional tunnel of the process and—ideally—the new and precious people who come out of it.
Sally Constine and her husband Louis “Sandy” Constine were among the 10 or so couples first chosen to participate when the Strong Fertility Center opened. The couple had met while Sally was working as a pediatric nurse in London, married the next year and then moved to the United States, where Sandy continued his studies in pediatric radiation at Johns Hopkins University School of Medicine.

Their first child, Alysia, had been born in 1975, but it had taken 13 months to get pregnant, said Sally Constine. “I had work-ups, took my temperature, had dyes in my tubes.” Three years later, they were having problems conceiving again—and they yearned for a sibling for Alysia.

The couple tried everything that offered a glimmer of hope—hormones, supplements, blood tests to check for abnormalities, artificial insemination. None of the doctors they saw could determine the problem. Ultimately, the diagnosis was “unexplainable secondary infertility.” Their solution: adoption.

But Sally, then 34, wasn’t ready to give up trying to conceive.

The world’s first in vitro birth, of Louise Brown in the United Kingdom, followed by the first IVF birth in the United States in 1981 gave women like Constine at least some hope.

She joined Resolve for Rochester, a support group for women dealing with infertility. In an article she wrote for the group’s newsletter, she describes what drew her to IVF: “I wasn’t ready to give up. We’d done it once, nothing appeared to have changed, there had to be an answer. Each day we cherished Alysia, but the longing for a second child continued.”

The Constines were overjoyed when they learned that Strong was opening a CARE (Childbearing by Alternative Reproduction) Program. The Center, created and first headed by Dr. Henry Thiede, opened in 1983. Only married couples could apply. They were interviewed, tested and—if accepted—were allowed up to four series of IVF treatments.

In preparation, women had to undergo daily hormone injections, and numerous blood tests. General anesthesia was necessary to extract a woman’s eggs.

“The procedure to extract eggs in 1983 could only be obtained by laparoscopy,” said current director Dr. Kathleen Hoeger, describing the technique of inserting a thin tube through an incision in the abdomen. “And since there was no ultrasound to guide doctors, patients required significant surgery with little guarantee of obtaining eggs.”

In November 1983, Sally began her first IVF treatment cycle. Then she waited and hoped.

“You have to have hope—but the higher you hope, the farther the fall if it doesn’t work,” she said.

Weeks later, she felt the disappointment of her period arriving like clockwork. She tried again in February 1984, with the same results. And again in June 1984.

The detailed, daily examination of what was happening with her cycle was a challenge, Sally said. “You realize only 10 to 20 percent get pregnant, and you try not to be too hopeful. Yet it’s hard to keep hopes down.”

By September, she was 38 and starting to face facts. She recalls reading a book about adoption while lying on the table, waiting for the doctor to come in. The program offered couples four tries, and “it was the fourth try. I had to say to myself, ‘This may not work.’”
Once again the couple began the waiting game. And they endured another pregnancy test.

It came back positive.

"We were ecstatic," Sally said.

Still, they would have to wait nine more months to be sure. At 2:55 a.m. on June 3, 1985, Joshua Sanders Constine, weighing 8 pounds, 2 ounces and measuring 22 inches long, was born.

He was the third baby born in the program, but Josh still made the papers. The headline began, "It's a boy—"

"We so much wanted him," said Sally.

"We really felt we had our family."

For several years after, the couple attended annual parties held for IVF babies. They did it mainly to reconnect with the doctors and nurses who helped them during their struggle to conceive.

Now, 28 years later, Sally reflected on their own efforts and emphasized the importance that both partners be committed to IVF's arduous process:

"Really, everybody has to go through this with a partner who has resolve," she said.

The changes in IVF have been dramatic in the 30 years of the program.

"In general, the IVF program's success rate is dramatically better," said Center director Hoeger, who began working at the Center in 1995. "Earlier, couples were screened very carefully in a very elaborate process. Now we have more than six times the success rate."

And more people are able to try.

"There are almost no restrictions on who can be treated currently—no arbitrary selection criteria, no waiting lists. Now we can treat almost anyone with IVF for any indication."

And the science, of course, has evolved. "The methods used in the process have changed dramatically in every way except the hormones used," Hoeger said, and even those have been refined "to allow for easier hormonal injections that begin the journey to pregnancy."

Today, thanks to advanced ultrasound techniques, Hoeger calls it "a minor procedure" to extract eggs.

"Probably one of the biggest
advancements is the ability to use a single sperm to allow for pregnancy," she added. "In 1983, this would have been impossible. We also have the ability to screen the embryo for genetic abnormalities. This was not even discussed in 1983."

Also unimaginable in 1983: Today's ability to use eggs from another person, or for another time. "A woman can now freeze eggs to preserve fertility for the future," Hoeger said.

The age of women eligible for treatment has also risen with the advent of donor eggs from younger women, a practice that began at the Center in 2013.

And while it remains prohibitively expensive for many childless couples, the Center sometimes receives donations to help pay for others. Some couples dealing with a cancer diagnosis, too, are receiving more hope.

Statistics show a growing number of cancer survivors can start or expand a family, despite receiving cancer treatments that affect a woman or man's ability to have children. In the Center's CARE Program, doctors confer with oncologists, offer counseling before and after treatment and provide options for fertility preservation (freezing eggs or embryos). They also work with sperm and embryo donors.

Even with so many advances, IVF will always start with emotional turmoil—anyone who understands the urge to have children will understand that basic fact. After her fourth try finally resulted in a child, Constance wrote about looking back and recalling so many emotions over the years: "frustration, anger, sadness, loss of control, and guilt." Her guilt was over the basic desire to have more than one child.

The expense of the procedure can add another difficult hurdle. Melissa Miller, one of the Center's most recent participants, said: "We couldn't afford the Fertility Center—it cost $7,000 to $10,000 for each complete cycle—until my husband switched jobs, and we cashed in his 401k. If we hadn't, we never would have been able to do it."

The couple, from Buffalo, had tried for five years to conceive. They considered adoption, but that too can cost up to $30,000, said Miller.

After several IVF procedures, Melissa and husband, Dale, welcomed their son, Simon, in February 2013, a year and three
months after beginning the process.

"We had to give it a try," she said.
"If I hadn't tried IVF, I've always had wondered."

Alternative reproduction treatments are mainstream today, even as the
definition of what makes up a family has expanded beyond a married heterosexual
man and woman. Eggs are now frozen
and stored for future use or donated to
others who need them. Cancer patients
after chemotherapy can still achieve their
dreams of a family. Surrogate mothers are
paid to help a couple have a child.

In the end, a Stronger Fertility Center patient if the struggle and pain and
expense were worth it. Without a doubt,
once a miracle that was once thought
impossible becomes possible and a healthy
baby is laid in their arms, the only possible
answer is, yes, it was all worth it. R

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In vitro fertilization involves five basic steps. First, a woman is prescribed
fertility drugs to boost her ovaries' egg production beyond what a woman
normally produces each month. The patient's ovaries are monitored during this
time via transvaginal ultrasound while blood tests check hormone levels. Eggs
are then retrieved either by a minor surgery, called follicular aspiration, or a
pelvic laparoscopy.

Next, sperm is placed into the egg for fertilization. When the fertilized egg
divides into an embryo, usually within a few days, the embryo (or more than
one) is placed into the woman's womb in an outpatient procedure. If an embryo
implants in the lining of the womb and grows, pregnancy results. If not, the
procedure is repeated. Unused embryos are frozen or donated at a later date.

According to the American College of Obstetricians and Gynecologists, "a
woman undergoing IVF has an approximate 22-fold increased risk of conceiving
a twin pregnancy and a 100-fold increased risk of conceiving a triplet pregnancy,
as compared with natural conception."

Reputable doctors still occasionally place multiple embryos in women who
undergo IVF because the chances that even one will stick and grow into a baby
are low. According to the Society for Assisted Reproductive Technologies,
women under the age of 35 have a 41 to 43 percent chance of giving birth after
IVF; women over 41 have a 13 to 18 percent chance.

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