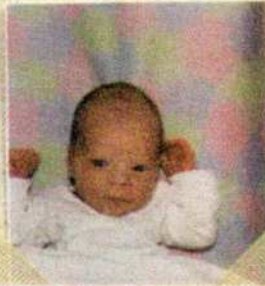


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HONORING MOTHERS



Science Lends Helping Hand to Mother Nature for Infertile Couples

By Suzanne K. Yowler
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Couples dealing with infertility will find several champions in Cincinnati to fight for their cause.

"People come here from all over the country and the world - France, Germany, Canada," said Michael Thomas, M.D., a reproductive endocrinologist and director of the Division of Reproductive Endocrinology and Reproductivity at the University of Cincinnati (UC).

"(Reproductive specialists in Cincinnati) maintain the highest ethical standards. We have a reputation for being fair in our dealings with patients and in our fees," Dr. Thomas added.

When most people think of infertility treatments, the first thought that comes to mind is in vitro fertilization (IVF) and multiple babies. However, according to NeeOo Chin, M.D., a reproductive endocrinologist, 50 to 65 percent of couples do not need the more sophisticated, expensive procedures and only 10 percent need IVF.

"Any couple who seeks help has a 70 to 80 percent chance of becoming pregnant," Dr. Chin said.

With a couple in the 18 to 30 age bracket, even if they have intercourse during ovulation, the chance of getting pregnant is 18 percent, according to Dr. Thomas. He defined infertility as the inability to get pregnant after one year of trying to conceive. When to see a specialist depends on the circumstances and the age of the couple. If you know there is an issue - for example, the woman does not ovulate regularly - visit someone right away. If the woman is under 30, the recommendation is to try for one year; between 30 and 35, try for nine to 10 months; between 35 and 40, try for six months. If the woman is 40 or older, see a specialist if you do not get pregnant right away.

Step by Step

The first step in treating infertility is to determine the problem. A complete history is taken and frequently the woman receives a pelvic examination and an ultrasound. Based on the findings, more directed testing is conducted.

"The goal is to determine whether it is a male problem, a female problem or if they are both contributing to the problem," said Dr. Thomas. "With 40 percent of couples, it is the



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male, with another 40 percent it is the female. In 10 percent it is both, and the hardest to treat is the 10 percent where you cannot find the reason."

Frequently a sperm analysis is conducted to determine the number of sperm produced and if the shape is normal. Males are also checked for structural and or anatomic problems, varicose veins around the testicles and exposure to environmental contaminants such as paint and solvents.

Females are checked for the shape of the uterus, ovulation status and how well they are ovulating. According to Dr. Chin, a more invasive procedure is laparoscopy during which a lighted telescope is inserted through a small incision in the navel. The procedure allows the physician to check for scar tissue and lesions. Both of these conditions may contribute to the inability to get pregnant and carry a child to full-term. Dr. Chin added that a carbon dioxide laser is used during the procedure to burn any problem-causing tissue.

During laparoscopy, the woman can also be checked for endometriosis, a condition in which part of the uterine lining is outside the uterus.

"Endometriosis creates a hostile environment for the egg and sperm to get together," Dr. Chin said. "It creates scavenger cells which attack the sperm, increases beta 3 which reduces implantation ability and

increases prostaglandin production."

The increased prostaglandins cause the smooth muscles to contract prohibiting the Fallopian tubes from working properly. When the ovary pushes out an egg, the tubes have to move over to catch it and send it to the uterus. If the smooth muscles are contracting, the process does not work the way it was intended.

Other causes of infertility include pelvic inflammatory disease and undiagnosed chlamydia, which can affect the Fallopian tubes, and diminished ovarian disease, when a woman's uterus is acting older than it is.

Treatments for infertility vary from drugs to regulate ovulation to IVF. Sometimes it is as simple as correcting the endometriosis. Some women have surgery to reconstruct their Fallopian tubes. Once the problem is corrected, the women can conceive naturally. If necessary, the woman may try oral fertility drugs that can cost as little as \$20 per month. Injectable fertility drugs, which are usually the next step, can cost \$400 to \$1,200 a month. Dr. Chin mentioned there is an increased risk of ovarian cancer when using fertility drugs.

Other Options

Another method is intrauterine insemination during which the sperm is put up inside the uterus. The cost using the man's sperm is usually only a few hundred dollars. This

technique may be used if the sperm count is low or the sperm has low motility or the cervical mucous will not allow the sperm to enter the uterus.

The Institute for Reproductive Health also has a gestational carrier program. The eggs and sperm are harvested from the natural parents; an embryo is created in the laboratory and implanted in another woman's uterus. The difference between a gestational carrier and a surrogate mother is that a surrogate provides the egg as well as carrying the child.

If a woman is not ovulating enough, even with fertility drugs, egg donation is another option. You can use an anonymous donor from a bank or ask a close friend or relative. The woman's cycle is depressed and she is given medications to produce an artificial uterine lining. Her cycle and that of the donor's are synchronized, the eggs are harvested from the donor, the eggs and sperm are combined in the laboratory and the embryos are implanted in the mother's uterus. The cost is around \$10,000 to \$15,000.

The most aggressive therapy is IVF. The woman is usually injected with a large amount of hormones to increase her egg production. According to Dr. Chin, the woman may produce anywhere from eight to 20 eggs. The eggs are retrieved through the vagina and combined with the sperm in the laboratory. Three to five days later the best embryos are placed in the uterus through embryo transfer. The cost is usually around \$8,000 to \$12,000. Intracytoplasmic sperm injection is often used in conjunction with IVF. One sperm is injected into one egg.

The success rate of each method depends on a variety of factors, however, the success rate in Cincinnati is even better than the national average, according to Dr. Thomas. The risk of multiple births with fertility treatments is greater than average, but in Cincinnati is at or below the national rates, according to Michael Scheiber, M.D., M.Ph., F.A.C.O.G., the director of Reproductive Research and co-director of IVF at the Institute for Reproductive Health.

Insurance coverage for fertility treatments varies. Usually, the diagnostic aspects are covered, as are procedures like laparoscopy and surgeries such as tubal rebuilding.

If you plan to start a family, sooner is better than later.

"Pregnancy is age-dependent," Dr. Chin said. "After age 34 ovulation changes. The eggs are chronologically older and the quality is reduced. After 40 a woman has a 10 percent chance to conceive and a 50 percent rate of miscarriage."

Dr. Thomas said that up to age 35 is the best time for a woman to conceive. He added that

after 40, a woman's hormone production changes and even the covering of her eggs change, making it more difficult for the sperm to penetrate.

"In the future, I look for our work to move toward decreasing the possibility of having a child with problems," Dr. Thomas said. "The biggest problems we face are chromosomal and disease issues. We'll find ways to decrease the possibility of children born with these issues."

For more information on infertility, visit asmr.org, the website for the American Society for Reproductive Health. There are answers to commonly asked questions, information on local physicians and a link to the Centers for Disease Control website, which provides statistics on success rates and the risk of multiple births for the different infertility treatments. Another website to visit is for the Institute for Reproductive Health at cincinnatiinfertility.com.

The Face of Infertility

The Lawsons

Shari Lawson, 39, married her best friend, Terry, 37, a year and a half ago. It was her second marriage and her husband's first. The Cincinnati residents wanted children and started trying almost right away. After two miscarriages, Shari decided to see a specialist. She was told Dr. Chin was the best and she

found him in the Christian blue pages, so she decided to make an appointment.

"When I met with Dr. Chin I got a lot of information," Shari said. "Age is the biggest factor for me now."

She just started working with Dr. Chin and has gone through a series of laboratory tests and an ultrasound. She will start on injectible fertility drugs with her next menstrual cycle. Due to her age and the increased effectiveness of the injectible form, Dr. Chin skipped over the oral drugs that are frequently tried first.

Residents of Cincinnati, Shari is a registered nurse and Terry is a systems analyst.

The Denlingers

Julie Denlinger, 27, never had regular menstrual cycles and had been on birth control pills since her early 20s. When she and her husband Jason, 31, decided to have a family, she stopped taking the pill and her cycles started getting longer. Her primary care physician suggested trying fertility drugs. Over the next several months, Julie worked with her OB/GYN for three cycles of the drugs.

"I didn't think I was being followed closely enough by my OB/GYN," Julie said. "A friend went to Dr. Chin and said how personable and thorough he was."

Dr. Chin determined that Julie was not ovulating. He used intrauterine insemination and fertility drugs and Julie is now 14 weeks

pregnant. She and her husband, a geologist, live in Cincinnati.

The Weidenwebers

Kevin Weidenweber, 30, of Cincinnati, developed a rare neurological tumor at the age of 19. He and his wife of three years, Cheryl, 29, were high school sweethearts and were together when he was diagnosed. Before chemotherapy left Kevin sterile, his sperm was harvested.

After the couple married and decided to have children in July of 2000, Cheryl went through intrauterine insemination twice. Neither attempt resulted in a viable pregnancy and all the harvested sperm had been used.

Glenn Hoffmann, M.D., Ph.D, the medical director for the Bethesda Center for Reproductive Health and Fertility, decided to put Kevin on fertility drugs and collect his sperm. The couple tried IVF twice. On the second attempt, since Kevin still produced very few sperm, those that were harvested were kept in an empty hamster egg so they could be seen and easily found.

After Cheryl was stimulated to produce eggs, the harvested eggs were injected with one sperm each. Only one embryo was viable for implantation; however, one was enough. Ryan Weidenweber was born in May of 2001.

The family resides in Loveland. Cheryl is a stay-at-home mother and Kevin works in computer support.

The Kilpatricks

Cincinnati residents Monica and James Kilpatrick run marathons. That's even how they spent their honeymoon a few years ago.

"I thought I was pregnant before we got married," Monica said. "I hadn't started my period and I had never missed before."

It turned out that she wasn't pregnant. It was the physical demands of training for the marathon that had stopped her menstrual bleeding. Monica was 37 and James was 38 when they started trying for a child. Her OB/GYN tried a few options, then quickly suggested a fertility specialist. They worked with one physician for six months and tried intrauterine insemination several times. Even with injectible fertility drugs, Monica produced few eggs.

"We told our physician we were ready to try IVF," Monica said. "My doctor said he wanted to do a test while I was on the fertility drugs. The level of FSH (follicle-stimulating hormone) was supposed to change. It went the opposite direction that it should have."

The test showed that Monica's eggs were not viable and she would not produce enough eggs for IVF. Her first physician said he would not do the procedure but did not clearly explain why. The Kilpatricks went to Dr. Thomas for a

second opinion and he explained the situation to them. He told them they could find someone to do IVF, but the likely result would be miscarriage.

The next step was finding an egg donor. The couple filled out a questionnaire on what they wanted and were matched with potential candidates. After a donor was selected, the egg harvest resulted in 13 embryos. Three were transferred to Monica, and the Kilpatrick twins, Becca and Haley, were born in September 2001.

Monica, an accountant, and James, who works in construction management, carried very generous insurance which covered a great deal of their infertility treatment. Monica suggested looking for a donor with the attitude, "I'm giving blood," as opposed to someone who considers the baby her firstborn child.

She added, "Just because you use a donor egg, it doesn't mean they (any children born) are not yours," Monica said.

The Mulhollens

Tina and John Mulhollen tried for four years to have a child. They were told IVF was the only way they could conceive.

"We had gotten the figures and we couldn't afford it," Tina said.

Then she heard about the Madeleine Gordon Gift of Life Foundation in October of 1995. The foundation provides assistance for couples with infertility problems who have not had children together and who need financial help. Tina wrote and asked for help. She and her husband were selected for the program.

Tina, now 39, went to the UC for testing. It was discovered that her Fallopian tubes were blocked. The tubes were removed because a backup of fluid prevented access to the eggs. Tina got pregnant on the first IVF attempt, and her daughter Katie was born in August of 1997.

Tina and John, 44, live in Cincinnati. Both are employed by John's tape and label distributing company.

The foundation that helped the Mulhollens was founded in 1995 and is completely financed by contributions. All funds go directly to the UC Department of Obstetrics and Gynecology. Its board of directors includes UC physicians who select the candidates.

The physicians finance one-third of the procedure, the foundation provides one-third of the cost and the couple makes up the final one-third. Since its inception, the foundation has helped fund the birth of 12 babies. Every couple is provided with two opportunities to conceive. For more information, to apply or to make a donation, write to the Madeleine Gordon Gift of Life Foundation, P.O. Box 6945, Cincinnati, OH 45206.

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