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The University of Texas Health Science Center at Dallas 5523 Harry Hines Boulerard Dallas. Texas 75235 (2)4)688-3404 **UTHSCD offers help for infertility from special referrals to in vitro fertilization.

The University of Texas Health Science Center at Dallas 5323 Harry Hines Boulevard Dallas, Texas Torrs (2)A) 688-3404 DALLAS -- "It may not happen the first time, you know," the doctor warns her friend who fears her biological clock may run out on her before she has a child.

"That's not what they told us in high school," replies the corporate lawyer in the current movie "The Big Chill."

Too true. While parents, P.E. teachers and youth counselors often stress how easy it is to get pregnant, our "sex educators"- whoever they are - rarely discuss what is an increasing problem for many couples in the U.S. today: conception. Statistics released this year by the National Center for Health Statistics indicate "a Marked trend toward infertility" among couples surveyed between 1965 and 1976. Infertility rates during these years had risen for white women from the previous figure of five percent to eight percent in the 15-29 age group. At the same time, the rate for black women of the same age had risen from six to 14 percent. The study "concludes that at least one couple in 10 has a problem with sterility, and almost half of the couples in this country have had difficulties conceiving.

"When you talk about 10,000,000 in the North Texas area, then you're talking about a lot of lives being affected," says Dr. Clare Edman. Edman is associate professor of Clinical Obstetrics and Gynecology and director of the Ob/Gyn consulting services for infertility at The University of Texas Health Science Center at Dallas. The infertility consultants see patients with difficult medical problems from not only the Dallas/Fort Worth metropolitan area and the northern portion of the state but also from many other Texas cities and towns.

The program, which has been working with couples for 10 years, is currently expanding. Not only will consultants be able to accept more patients when they move into quarters in the new outpatient facility on campus, but in vitro fertilization will also be added to the broad-based infertility program. The UTHSCD in vitro services will be the third "test-tube baby" program in The University of Texas System. The health science centers at Houston and San Antonio have well established, successful programs. The Dallas group hopes the UTHSCD waiting lists will not exceed a six-month time period at any time.

In vitro fertilization uses a technique developed in England that resulted in the birth of Louise Brown -- the first "test-tube baby" -- about five years ago. During the in vitro fertilization process, the egg and sperm of the infertile couple are united in a glass container. Actually, these days specialists try to fertilize more than one of the mother's eggs and implant these tiny embryos in her uterus.

The major difficulty is getting the zygote, or fertilized egg, to implant in the uterus. The fertilization rates using the in vitro techniques are often greater than 90 percent, says Dr. David Guzick, assistant professor of Obstetrics and Gynecology and member of the infertility team. "However, there are many factors involving implantation and development of the placenta that we just don't understand at this time. However, considerable research efforts are being devoted to these problems."

Edman says there is much misunderstanding about in vitro fertilization programs. Many people erroneously assume that because they are new, they're the answer to all fertility problems.

"In vitro fertilization, which many people think of as the 'in' thing, is only one of the approaches that we can utilize to resolve infertility problems, but it is sometimes a court of last resort.'

Another misunderstanding many people have about infertility is that it is a female-only problem. Not only is this idea incorrect, some medical experts estimate that around 40 percent of all fertility problems are male-related.

When a couple enrolls in the UTHSCD program, they have often been under the care of another physician for one to five years, most for about three, says the director. However, a high percentage of infertility patients do not need the specialized care of a reproductive endocrinologist.

"Many women often get pregnant after their first visit to the doctor. Twenty percent or so resolve their problems by taking one of the infertility drugs. Another 30 percent find that their problem can be resolved by constructive or reparative surgery for various types of tubal diseases."

When a patient comes to see Edman or one of his associates, the director says it's usually because the regular physician believes that the problem is beyond his or her expertise and would like for someone at the medical school to help with the infertility problem.

Most physicians, says Edman, are quicker to refer older patients because they know time is critical. This is because the most fertile time for a woman is in her mid-20s. The fertility rate begins to drop slightly after 30 and continues to drop, especially once she passes 35. Ironically, more and more women have been delaying childbirth in this country, according to U.S. Census Bureau reports, because of better birth control methods and socioeconomic reasons. In the 1960s women in the U.S. began delaying childbirth until age 25. Now many are waiting until past age 30 to start their families.

When a couple is referred to UTHSCD for a fertility evaluation, all available avenues are investigated. The first step is to pinpoint the cause of the infertility problem so a solution can be sought. There are many possible obstacles to fertility. Women may have irregular or no ovulations; their fallopian tubes may be blocked as a result of sexually transmitted infections or intrauterine devices (IUDs). Perhaps the mucus of the cervix is so thick that the sperm cannot make it into the uterus and tubes where fertilization occurs. Some women may develop endometriosis, a condition in which the tissue that lines the uterus is washed outside that organ during the menstrual period and implanted on various pelvic or abdominal structures.

Men may develop abnormal sperm, have a low sperm count or perhaps be producing no sperm at all. Diseases such as post-pubescent mumps or sexually transmitted infections may lead to such conditions. Another problem may be caused by infections in the male reproductive system. The male can have obstructions of his vasa deferentia (tubes carrying sperm from testes to ejaculatory ducts). If this happens, the scrotal temperature may rise and cause a lowering of sperm production. Microsurgery can sometimes correct these conditions.

Sometimes men may also develop antibodies to their own sperm. All in all, doctors say, there are many problems that lead to infertility.

When the couple comes to the health science center, they are asked to bring all the medical records they have accumulated in their individual search for conception. Not only will this help the team evaluate the case, but it may also prevent a repetition of some procedures. Basal body temperature records often help determine if ovulation is occurring. If the woman is ovulating normally then blood tests may be done to determine whether the body is producing enough progesterone. She may also have ultrasound testing to learn if ovulation has occurred. A cervical mucus test may help determine if the woman's cervical mucus is the right consistency. She may also need a test called a hysterosalpingogram in which dye is injected into the fallopian tubes to make sure they are not blocked. And an endometrial biopsy may be helpful to see if ovulation occurred at the correct time.

Drugs such as Clomid, a synthetic hormone that stimulates the release of the gonadotropin-releasing hormone, may be used to start ovulation. If the pituitary gland is not releasing enough follicle-stimulating hormones or luteinizing hormones, Pergonal, a much stronger drug, may be used. Pergonal forces the maturation of the egg. Patients on this drug must be monitored closely since they are at greater risk of having hyperstimulation of their ovaries and multiple births. This monitoring is in the form of daily blood tests and ultrasonic evaluations.

If all the preliminary tests are within normal ranges, the next step is often laparoscopy. Laparoscopy is a surgical procedure in which an illuminated tube is passed into the abdominal cavity through a small incision made in the area of th navel. This enables physicians to get a close look at the woman's reproductive organs. Often endometriosis and tubal scarring are discovered through laparoscopy. Today the patient with scarred tubes may have a better chance to conceive, says Guzick, because techniques in microsurgery have been vastly improved.

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Testing of the male often starts by obtaining a semen analysis, or sperm count. Normal semen contains more than 20 million sperm per cubic centimeter (about 1/30 of an ounce). In addition, at least half the sperm must be mobile to achieve resonable pregnancy rates. The man's sperm may also be tested for their ability to swim through mucus and strength of penetration. If there is a problem in one of these areas, the physician may suggest artificial insemination, either with the husband's sperm or that of a donor.

Initially in vitro fertilization was used in cases where surgery for tubal problems failed or was not possible. Now its use has been expanded to include cases where there is low sperm count, endometriosis and unexplained infertility not responding to conventional forms of fertility therapy.

However, this is not cheap. Each treatment cycle corresponds to one monthly menstrual cycle and costs about \$5,000. While most insurance policies treat most infertility testing and procedures as medical necessities, that is not true for the IVF procedure. Often only laparoscopy is covered.

Edman is excited about the expansion and growth of the new IVF program. "Not only are we increasing out potential to help people with infertility problems, but what's exciting about IVF is that we can look at the early processes of pregnancy more closely." He's also excited about "something very new on the horizon: they're coming out with fine fiberoptic lenses that will allow us to investigate tubal and uterine factors more thoroughly." This development will be a tremendous help diagnostically.

Staffing for this expanded program will involve several reproductive endocrinologists, a Ph.D. scientist with experience in one of the country's top in vitro programs, a urologist and a medical endocrinologist interested in male infertility. Their activities will be coordinated with a nurse clinician and social worker. The Ph.D. scientist is also interested in sperm antibodies. The team will call upon other resources in the Department of Obstetrics and Gynecology who have skills in genetic counseling, amniocentesis and chorion biopsy, which are used to determine if certain genetic disorders are present. In addition, this team provides adoption counseling if all other options fail.

The IVF program is slated to start in September. Patient screenings will begin in June.

Guzick, who says he has a bit of a surgeon's personality in that he "likes to fix things," is delighted with the expansion of the entire infertility program. Guzick is a health economist who has both a Ph.D. in economics and an M.D. from New York University with residency training at Johns Hopkins. The physician expects to make a major contribution to the program from both a clinical and research standpoint.

Edman agrees. "One of the most exciting things about the health science center program is that we'll be on the forefront of knowledge. Not only will we be involved in research in infertility ourselves, but we will have access to the most recent findings at other scientific institutions," he says.

For information about the UTHSCD infertility program call 214/688-2784.

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