

A LONGER ROAD TO PARENTHOOD

For some, becoming daddy and mummy requires the advanced medical help that has made infertility a reversible prognosis.

In Singapore, the trend of couples choosing to have just one child or none at all is a worrying one. For some, not raising a family is a lifestyle choice. But for others, it's a medical condition they are trying desperately to seek answers — and redress — for.

Couples hoping to hear the pitter-patter of feet around the house are in despair because their efforts to conceive seem futile. And although infertility has traditionally been seen as a female-centric problem, more are now aware that infertility affects both genders.

Says Dr Anupriya Agarwal, an associate consultant at the National University Hospital's (NUH) Department of Obstetrics & Gynaecology, "There are several reasons why a couple is unable to conceive. The problem could be with the male partner (30 per cent), the female partner (30 per cent) or both (30 per cent). The rest of the 10 per cent of causes remain unknown, in spite of investigations."

At the same time, female fertility declines with increasing age. With more and more women delaying child-bearing due to career or other reasons, increasing age is becoming an important cause of infertility. Other common female causes are polycystic ovaries (leading to the inability of the ovaries to release an egg every month), endometriosis (the presence of tissue of the inner lining of the womb outside or around the womb, causing distortions to the normal process of conception and painful intercourse) and tubal blockage.

Meanwhile, male infertility, which is often unexplained, may be due to conditions like varicocele, infections of the genital tract, genetic problems and undescended testes. Infections like mumps



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BY MICHELLE BONG



PLAYING THE STORK MARKET

Medical treatments have been the architects behind happy success stories, shares Dr Anupriya Agarwal.

CASE 1: A young couple was unable to conceive although they had tried for almost three years. Investigations revealed that the husband actually had no sperm in the semen (Azoospermia), making spontaneous conception impossible. After a testicular biopsy revealed that sperm were present in the testis, these sperm were frozen for later use. An IVF cycle was done subsequently and ICSI (intracytoplasmic sperm injection) was used to fertilise the eggs obtained from the wife. The embryos that resulted were transplanted back into the wife's womb. She got pregnant and the couple are now proud parents.

CASE 2: A female patient, in her mid 30s, has polycystic ovaries and diabetes but conceived successfully with the help of IVF. When her daughter turned three, wanting to add to her brood, she tried a second IVF but was unsuccessful. Without the resources for a third try, she decided to opt for ovulation-inducing medication, coupled with intra-uterine insemination (IUI). The first two cycles of IUI were unsuccessful, but the third time proved to be a charm. She is currently in the 27th week of her pregnancy.

and operations like hernia repair can also be factors, along with smoking, alcohol consumption, drug abuse, chemical exposure and frequent sauna baths.

CORRECTIVE MEASURES

According to Dr Agarwal, the treatment of infertility varies and depends on the specific problem.

Women with polycystic ovaries are commonly administered ovulation-inducing medication such as Clomiphene, to address the hormonal balance that prevents the regular release of eggs from the ovary.

While surgery can sometimes be used to open blockages in

a woman's fallopian tubes, usually, these couples are advised to go for IVF (in-vitro fertilisation), as it has higher success rates and also reduces (though not eliminates), the risk of ectopic (tubal) pregnancies.

Women suffering from endometriosis are advised to undergo laparoscopic surgery to remove the endometriosis and increase the chances of conception. Women who have fibroids that may cause tubular blockages or prevent embryos from being implanted, are advised to have them surgically removed.

For males, the treatment depends upon the severity of semen abnormalities. Explains Dr Agarwal, "If the semen has mild abnormalities, then procedures like intra-uterine ❖

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insemination — washing the semen to select the best sperm and then putting it inside the woman's womb around the time of ovulation — can be performed.

“However if the abnormalities are severe, IVF-ICSI (in-vitro fertilisation, intracytoplasmic sperm injection) may be required. If there are no sperm in semen, a testicular biopsy needs to be performed to determine the presence of sperm in the testes. If present, these sperm can be frozen and used for IVF-ICSI later.”

THIS IS THE RIGHT TIME

How does a couple know that medical help — and not increased love-making sessions — is the answer? Experts say a couple should seek medical advice if they are unable to conceive within a year of unprotected regular intercourse of two to three times a week. And in line with declining fertility rates, women who are aged 35 years and up should see a doctor if they fail to conceive within six months.

“Ideally,” says Dr Agarwal, “all women should have a pre-pregnancy check-up to ensure there are no underlying problems that can impair their fertility. This is highly recommended especially for women who are older than 35, those who do not have regular periods or have had sexually transmitted, pelvic infections or any pelvic surgery.”

To promote their chances of becoming parents, couples should also adopt healthy lifestyle changes. On top of trying to conceive before the wife turns 35 (which marks the decline of her fertility), both should eat well-balanced diets while women

should take folic acid supplements that help prevent the malformation of the brain and spinal cord in the foetus.

Puffing adults should also consider stubbing out; in males, smoking negatively affects sperm production and quality while delaying conception by damaging the eggs, reducing fertilisation and even causing miscarriages and other pregnancy complications in women.

Adds Dr Agarwal, “Ultimately, couples should start their family planning early and not have a false sense of complacency, as advancements in reproductive technology, cannot as yet reverse the effects of age.”

HELP FROM THE GOVERNMENT

With medical assistance, couples will be better able to answer the government's call to help raise Singapore's birth rate. And they will also be in a position to enjoy the various new incentives of the Enhanced Baby Bonus Package that was recently unveiled by Prime Minister Lee Hsien Loong during his National Day Rally speech.

Although couples can tap into their Medisave accounts to pay for Assisted Conception Procedures (ACP), this can still run into tens of thousands of dollars. But from 17 Aug 2008, the Government has extended a helping hand to such couples by co-funding the treatment costs in public hospitals.

Singaporean couples who qualify for the scheme will receive 50 per cent of co-funding of up to \$3,000 per treatment cycle, up to a maximum of three cycles. Refer to sidebar (right) to see if you qualify. +

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HOW IVF WORKS

Can't wait to hear the pitter-patter of little feet? Find out more about in-vitro fertilisation (IVF).

IVF or test-tube baby programme involves retrieving the woman's eggs, fertilising these eggs with the sperm in the lab and subsequently replacing the embryo in the womb. In the most commonly used protocol, there are two phases prior to egg collection. During the first phase, injections are given to the woman for two weeks to suppress the hormones produced by the body. Next comes the stimulation phase. Daily injections then stimulate the ovaries to produce several follicles (fluid filled spaces inside which the egg stays). During this phase, the patient is monitored closely via ultrasound scans and blood tests to tailor the dose according to her response.

Once the follicles are mature, the eggs are retrieved. This is done under general anaesthesia but requires hospitalisation for only a few hours. The recovered eggs are fertilised with her husband's sperm, the embryos then grown in the laboratory and are transferred in the patient's womb three to five days later.

The success rate for each cycle is 30 to 35 per cent but this depends on the age of the patient undergoing IVF. The cost of the procedure varies from centre to centre. Part of the cost can be paid using Medisave and couples can also apply for government subsidies of up to \$3,000 per cycle, for a maximum of three cycles.

Like all procedures, IVF also involves certain risks and should be done only by a trained specialist. Ovaries may under-respond to the medications resulting in cancellation of the cycle midway. Over-response or hyper-stimulation can happen in some patients resulting in bloating and fluid collection in the tummy or in some rare cases, even in the lungs. There is also a 20 to 25 per cent chance of the pregnancy following the IVF being a multiple pregnancy (twins, etc) and these pregnancies may have a higher chance of complications like miscarriage, premature birth, etc.

BABY BUZZ

Various initiatives are in place to aid couples on their journey to parenthood.

An infertility specialist will give couples the best advice regarding their treatment. However couples grappling with infertility may need some emotional support. Inevitably, couples who are infertile also grapple with high levels of stress and disillusionment. As such, counselling by a doctor can help patients understand the rationale of various tests and treatment options.

Dr Agarwal says online support forums (such as www.singaporemotherhood.com) are also an excellent alternative to support groups, especially for couples who want to remain anonymous. Through these forums, they will get to hear other couples' stories and learn how they get over their problems. More importantly, couples trying to conceive can receive emotional support from others who, by virtue of being in a similar position, have a better understanding of their situation.

NUH's Clinic for Human Reproduction (CHR) is also where couples can seek advice. At the same time, the hospital also offers Assisted Reproduction Technology (ART) treatments in the form of In-vitro Fertilisation (IVF), Intracytoplasmic Sperm Injection (ICSI) and Gamete Intra-fallopian Transfer (GIFT).

One of the leading programmes of its type with many breakthroughs in the field of assisted reproduction, the ART Treatment programme is headed by Prof P C Wong (Director of the Programme and Head of Division, Reproductive Endocrinology & Infertility) and supported by a team of specialists committed to improving fertility through ART. The CHR does about 300 fresh IVF cycles per year.

As part of the Marriage and Parenthood package introduced by the Government to encourage couples to start a family, an ART co-funding scheme is also in place to make treatments more affordable for couples. To be eligible for the scheme, which kicked off on 17 August this year at restructured hospitals, couples must meet the following criteria:

- ▶ Either the husband or the wife must be a Singaporean at the start of the ART cycle.
- ▶ They have no more than one living child.
- ▶ The wife is below 40 years of age at the start of the cycle.
- ▶ The wife has been assessed by her doctor to have met the clinical requirements for ART.
- ▶ The wife's treatment is a fresh cycle; and she must not have had over two embryos transferred during the cycle or received three co-funded cycles in the past.

The Government co-funds up to 50 per cent of the costs of a fresh ART cycle, and up to \$3,000 per cycle for a maximum of three cycles. All the standard procedures from ovarian stimulation to embryo transfer can be included in the co-funding, but initial consultations and investigations prior to a patient's decision to start ART treatment are excluded from the co-funding. The amount of co-funding varies, depending on the citizenship of the couple.

Interested couples simply need to fill up a declaration form at the clinic, which will then be used to determine their eligibility.

**WHERE TO GET HELP****NATIONAL UNIVERSITY HOSPITAL**

The Clinic for Human Reproduction
Level 4, Kent Ridge Wing 2
Tel: 1800-CALL CHR or chr@nuhs.edu.sg
For more information, please visit
http://www.nuh.com.sg/_og/inTheSpotlight.htm

TAN TOCK SENG HOSPITAL

Urology and Continence Clinic
Level B1, TTSH Medical Centre
Tel: 6357-8004
For more information, please visit
<http://www.ttsh.com.sg/new/clinicalspecial/urology.php>