



# Paving The Path To Parenthood

*Dealing with infertility can be a journey of disappointment and desperation and can test even the most stable relationships. The good news is that achieving hormonal, lifestyle, and energetic balance can be the keys to fertility.*

Words by **Diana Timmins**

**I**nfertility affects approximately one in six couples and is generally defined as an inability to conceive after 12 months of trying. Although there is a growing trend for couples to start a family later in life, evidence suggests that female fertility may begin declining significantly earlier than in the mid-30s, as once thought. Research led by North Carolina's National Institute of Environmental Health Sciences in the US found that women aged 19-26 with partners of similar age had an approximately 50 per cent chance of conceiving during any one menstrual cycle. For women aged 27-35, this figure dropped to 40 per cent and for

those over 35, it plummeted to 30 per cent. The clock may tick a little slower for males, although a 2007 study by Soroka University Medical Centre in Israel revealed a 54 per cent decrease in sperm motility (ability to propel its tail) for men in their mid-50s compared with those in their mid-30s.

## **THE INFERTILITY PIE CHART**

Although age is a predominant factor impacting fertility, numerous other causes exist. The Fertility Society of Australia's 2006 National Fertility Study revealed that just four per cent of women thought their partner's fertility could affect the likelihood of conceiving – a common misconception.

According to Dr Mary Birdsall, medical director of Fertility Associates in Auckland, about 30 per cent of fertility issues have known male-related causes – roughly the same statistic as female-related causes. You can attribute about 20 per cent of cases to combined male and female complications and ascribe the remaining 20 per cent to “unexplained infertility.” Consulting fertility specialists from a variety of modalities helps ensure that you cover all bases when trying to address any baby-making barricades.

Although low sperm count is a major contributing factor in fertility, sperm motility and morphology (size and shape)



are also important. Sperm with head or tail defects may struggle to reach and penetrate a woman's egg. Genetic factors, previous surgery, trauma, infection, medication and radiation, and environmental influences such as toxins and overheating can cause such problems. According to Fertility Associates, it's rare for hormonal deficiencies to cause sperm problems, although drug treatment is usually helpful in this instance.

"Depending on the cause, keeping the testicles cool by wearing boxer shorts and avoiding hot spas and laptops on laps may help," says Birdsall. So even with male infertility, treatments such as intracytoplasmic sperm injection (ICSI), when one sperm is injected into an egg during in vitro fertilisation (IVF), may be required, she says.

A study by the University of Illinois suggests that men may actually get out what they put in. A diet containing the omega-3 fatty acid docosahexaenoic acid (DHA), which is found mainly in certain fish, such as salmon and tuna, may also improve sperm count and quality. Birdsall recommends consuming plenty of antioxidants, particularly from coloured vegetables, which are beneficial for sperm production.

#### FEMALE REPRODUCTIVE HEALTH

Female fertility relies heavily on the status of a woman's monthly menstrual cycle, which is regulated by the interaction of follicle-stimulating hormone (FSH) and luteinising hormone (LH) with sex hormones oestrogen and progesterone. Every month from puberty until menopause, each egg, or ovum, released from the ovaries combines with a surrounding sac of fluid and cells to form a follicle that secretes oestrogen. Generally, only one ovum fully matures each month, which – controlled by FSH and LH – ruptures after about a fortnight, triggering ovulation. This event causes the ovum to move out of the ovary and into the fallopian tube, where fertilisation occurs. Occasionally, a woman may have a fallopian-tube blockage. A minimally invasive procedure, hysterosalpingo-contrast sonography (HyCoSy), can test for this.

One of the most common conditions impairing the female reproductive system is endometriosis. This condition causes the endometrium (tissue that normally

lines the uterus) to grow in other parts of the pelvis, resulting in inflammation and scarring. Common symptoms include severe period pain, bloating, and preperiod spotting. "Laparoscopic, or keyhole, surgery to remove endometriosis improves chances of conception, but some women may need fertility treatment, such as intrauterine insemination [IUI] or IVF," says Birdsall.

Female infertility is often due to ovulation problems, usually indicated by irregular or absent menstruation. Polycystic-ovary syndrome (PCOS) is a common cause of ovulatory problems, and according to the 2006 National Fertility Study, it can take about 48 frustrating months to get a PCOS diagnosis.

**30%**

**Approximately 30 per cent of fertility issues have known male-related causes - roughly the same statistic as female-related causes.**

"PCOS is a genetic condition in which women's ovaries are slightly bigger than normal and contain many small cysts," says Birdsall. "If a woman with PCOS is not ovulating regularly, drugs such as clomiphene and metformin are often used to assist." Clomiphene may produce side effects, such as hot flushes, headaches, and mood swings – not to mention a nine per cent chance of conceiving twins. Other ovulation-stimulating medications, such as Gonal-f and Puregon, have fewer side effects yet are more expensive and further increase the likelihood of twins.

#### ENERGETIC EQUILIBRIUM

Enter the clinic of Traditional Chinese Medicine (TCM) doctor Lily Liu, and you'll find a wall of baby pictures and letters from doting parents expressing gratitude. Since migrating from Beijing to Sydney in 1988, Liu has helped countless couples conceive – many of them over the age of 40 – with acupuncture and tailored herbal mixtures.

Having also studied Western medicine, Liu has an appreciation of the anatomical and hormonal requirements for conception. Her expertise within Eastern modalities also allows her to treat patients from an energetic perspective. TCM modalities are

largely based on an unobstructed flow of vital energy, or *chi*; on the balancing of Yin (female) and Yang (male) energies; and on the invisible meridians that correspond to particular bodily organs and systems. Through these intricate connections, TCM can potentially remove blockages and correct malfunctions impeding fertility within the physical and energetic body. Practitioners have implemented TCM for this purpose for thousands of years.

"I mainly look at the liver and kidney meridians for reproductive organs, which must be cleared, with no stagnation or weakness," explains Liu. "They also can't be too hot or too cold. I determine energy deficiencies mostly with pulse and tongue

diagnosis and rebalance problems with combined herbs and acupuncture. At the beginning of a woman's cycle, I use clearing herbs to clean the uterus. Midcycle, I give fertilisation herbs for follicle nourishing. Around ovulation time, I prescribe herbs to release the egg and assist ovulation. Afterwards, I do an implantation and fertilisation follow-up, with 'holding herbs' to help sustain pregnancy."

Acupuncture involves the use of fine needles inserted strategically into the skin to stimulate or calm associated meridians. If required, a practitioner may perform moxibustion – a traditional process of burning the herb mugwort – to warm the meridians. The modern use of heat lamps may achieve similar warming results.

A 2010 study by the IVF clinic at the University of Pittsburgh in the US revealed that patients who received acupuncture on the day of embryo transfer achieved a pregnancy rate of 55.6 per cent, compared with the control group's 35.5 per cent. Another 2010 study on patients attending The London Bridge Fertility, Gynaecology and Genetics Centre determined that acupuncture was particularly effective for women in the 35 to 39 and 40-plus age groups.



“Acupuncture was particularly effective for women in the 35 to 39 and 40-plus age groups.”



### FAST FERTILITY FACTS

- About one in five pregnancies end in miscarriage, potentially due to age, suboptimal eggs or sperm, uterus or cervix abnormalities, chromosomal issues, antibodies preventing implantation, clotting, or thyroid disorders.
- Unfermented soy products, such as soy milk and tofu, may negatively influence oestrogen levels. Opt instead for nongenetically modified fermented soy products, such as miso, natto, and tempeh.
- Check your thyroid, as hypothyroidism (underactive thyroid) and hyperthyroidism (overactive thyroid) are commonly overlooked factors that affect

the formation of reproductive hormones.

- Know the signs of ovulation, such as excess mucus, lower abdominal cramping, moodiness, and a rise in temperature. Because each woman's menstrual cycle is different, ovulation times may stray from the standard day 12 to 16 window of opportunity. You can also test ovulation at home with an ovulation-predictor kit.
- Opt for good fats rather than the trans fats often hidden in processed foods. A Harvard University study discovered that increasing daily intake of trans fats by just four grams may considerably decrease fertility.

### ADDRESS STRESS

Stacey Roberts, naturopath and owner of Sharkey's Healing Centre, has helped more than 6000 couples conceive with individually tailored Western herbal blends, counselling, and lifestyle advice. Although Roberts acknowledges that some circumstances require medical intervention, she also recognises how commonly overlooked lifestyle habits potentially inhibit conception. In her book *The Fertility Bible*, she explores influential factors such as maintaining optimal nutrition and exercise, reducing toxic exposure, and decreasing stress. Falling short in these departments may result in physiological or psychological stress and could explain that exasperatingly “unexplained” infertility. One study by the University of Surrey in the UK revealed that simple lifestyle and nutritional improvements may enhance pregnancy success rates by a remarkable 80 per cent.

“Poor diet causes poor cellular health and physiological stress, which can affect reproductive-hormone levels,” says Roberts. “Nutritional deficiencies, such as low zinc, vitamin D, selenium, iodine, and chromium, may also be contributing factors.”

Based on her investigations, Roberts takes potential deficiencies into account – along with known medical problems and nutritional intolerances – when preparing herbs for her fertility clients. Depending on individual requirements, she may also

recommend additional supplements, such as fish oils with low mercury levels or probiotics that assist nutrient absorption. Preconception multivitamins are available on supermarket shelves; however, Roberts suggests avoiding self-prescribing these. Although many contain good nutrients, they are often low-potency and may have little effect.

Toxic exposure from recreational drugs is well-known for reducing fertility, as well as the health of future children. Among other repercussions, smoking is linked with cell damage and high levels of the toxic metal cadmium in the blood, which deprives the body of zinc. Coffee also gets a bad rap in the baby-making department, largely due to caffeine concentration. However, Roberts claims it may not be the beans themselves but what we add to them.

“Coffee has antioxidants, so one cup daily could be beneficial. The problem is added sugar and sweeteners,” she says. “Excessive sugar consumption ... creates inflammation and can be incredibly detrimental to reproductive health, especially for women with PCOS.”

A balanced exercise regimen and healthy body-mass index (BMI) are imperative. Calculate BMI by dividing your weight (kilograms) by the square of your height (metres). Ideally, you want to fall within the 20-25 range. Overexercising, not exercising enough, and being overweight or underweight place physiological stress on the system, which may increase gonadotropin-inhibitory hormone (GnIH) and impede reproduction. Research by the Domar Centre for Mind/Body Health in the US shows how maintaining fitness and reducing stress through replenishing forms of exercise, such as yoga, can positively impact fertility when combined with lifestyle changes and relaxation techniques. These findings support Roberts' main motto for conception: “Fertile mind, fertile body.”



**MINDFOOD.COM**

To learn about a wealth of fertility-promoting foods, head online.