National Association of
Specialist Obstetricians & Gynaecologists

INFORMATION SHEET
Infertility

expert care
for women

Infertility is generally defined as the inability to conceive after 1 year of regular sexual intercourse without using any form of contraception. Infertility can be classified as Primary Infertility (the inability to conceive with no previous history of pregnancies) or Secondary Infertility (the inability to conceive after a previously proven pregnancy whether successful or not). It affects both men and women and about one in every six couples is affected. About 90% of these couples will have an underlying cause after standard investigations. One-third of couples will have a problem from the female side; one-third from the male side and one-third will have combined male and female problems. The remaining 10% will not have an obvious cause. About 50% of infertile couples seeking medical help will conceive if given a bit more time.

What causes infertility?

Infertility has many causes. Female causes may result from factors that damage or cause blockage of the fallopian tubes (a tube that connects the ovary to the uterus) such as sexually transmitted infections and endometriosis. Endometriosis can also impact fertility by affecting the quality of eggs and uterine lining.

There are also causes that affect ovulation such as polycystic ovarian syndrome, hyperprolactinaemia (elevated prolactin hormone), premature ovarian failure and thyroid problems.

Sometimes infertility can arise from a structural problem within the reproductive organ such as certain fibroids, polyps, septum and various others congenital womb abnormalities.

Infertility due to a male problem can be due to the impaired production of sperm causing low to no sperm count. Sometimes the sperm can be less active (low motility) or unable to fertilise the egg because of having an abnormal shape. If the tube that carries sperm from the testes to the penis is blocked from either a previous infection or absent congenitally then no sperm can get out.

Certain medications such as cancer treatment drugs can deplete eggs and cause premature ovarian failure in the female or affect sperm production in the male.

Other factors such as alcohol, recreational drug use, exposure to certain toxins and smoking can also impact on fertility in males and females.

When should I see a doctor?

Patients with infertility may present either as individuals or as couples to the doctor after around 12 months of trying to conceive without success. Sometimes there may be other complaints that may alert the couples to the problem such as having irregular, absent, or painful periods. Occasionally the man may have physical features that may point towards a congenital problem such as being very tall, having small testes and penis or having a high arched palate.

What investigations can be done?

Hormonal blood tests are performed to check for abnormalities (oestrogen, thyroid function, adrenal & pituitary function) and to check for ovulation (a progesterone rise in the second half of the menstrual cycle). An ultrasound scan to check the pelvic organs is usually next. The doctor may also check your fallopian tubes to see if they are blocked with a special dye test imaged under x-ray or ultrasound scan. Sometimes an operation called laparoscopy may be necessary if the doctor suspects endometriosis. Laparoscopy is keyhole surgery carried out by making small cuts on your abdomen. A laparoscope that has a camera attached to one end and a light source on the other is inserted through one of these small ports to inspect the pelvic organs.

Semen analysis is usually the first line of test for the man. Sometimes a hormone blood test is also required. Rarely an ultrasound scan of the testes may be required too.

What treatments are available?

a. Medications

- Ovulation induction – clomid is often prescribed as first line treatment if you have problems with ovulation. The tablet is usually taken for 5 days in

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the first half of the menstrual cycle. Sometimes your doctor may add another drug called metformin if you have metabolic syndrome associated with polycystic ovarian syndrome.

- Bromocriptine – a drug taken to reduce the hormone level prolactin and help restore ovulation.
- Thyroid drug – this may be required if your thyroid function is underactive which can affect your fertility chances.

b. Artificial Reproductive Treatment

- Ovulation induction with daily FSH injections in the first half of the menstrual cycle. FSH is a synthetic hormone used to induce ovulation in low doses if clomid has failed to work.
- Intrauterine insemination of sperm – semen is collected and processed to maximize sperm quality. This is then inserted into the womb during the most fertile period in a woman's menstrual cycle. This method is often combined with ovulation induction with FSH.
- IVF (In-vitro Fertilisation) is usually reserved when other treatments have been unsuccessful, if the man has severe sperm problems, or if the fallopian tube anatomy or function is abnormal. It involves injection of higher daily doses of FSH to stimulate the ovary to produce a number of eggs. These eggs are then collected under anaesthetic and mixed with processed sperm for fertilization. Sometimes individual sperm are injected directly into each egg, a process called Intracytoplasmic Sperm Injection, for fertilization. The fertilized eggs called embryos are then cultured for 3 to 5 days before being put back into the womb usually one to two at a time.

c. Surgery

- Laparoscopy or keyhole surgery is often performed in the woman to investigate and sometimes treat the causes of infertility such as rejoining blocked fallopian tubes (though rarely done these days) or removing endometriosis or clipping swollen fallopian tubes prior to IVF.
- Vasectomy reversal can be done in the man if they have had vasectomy in the past.

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