

Infertility treatments - male

Approximately one in five couples has trouble conceiving a child. If a couple is unable to conceive after one year of unprotected intercourse, they are said to be sub-fertile. Around 40 per cent of fertility problems originate in the man, with causes including sperm abnormalities and blockages within structures of the reproductive system, such as the vas deferens.

Many men have sufficient sperm to fertilise their partner's eggs in a test tube, even if they are unable to do so during sexual intercourse. In most cases, the couple can be helped with assisted reproductive technologies. For around one in 10 couples investigated for infertility, no cause is found. This is known as 'idiopathic infertility'.

Diagnosis methods for male infertility

Investigating suspected infertility requires a range of tests for both the man and his partner. Some of the tests the man may undergo include:

- **Physical examination** – including medical history
- **Ultrasound scans** – to check the health of reproductive organs
- **Blood tests** – to check sex hormone levels
- **Semen analysis** – to check a sperm sample for abnormalities and antibodies
- **Testicular biopsy** – to check the fine network of tubes within the testicles for the presence of sperm when no sperm are found in the ejaculate.

A range of reproductive technologies

Some of the reproductive technologies available to infertile men include:

- Surgery
- Hormone therapy
- Artificial insemination
- In vitro fertilisation (IVF)
- Intra cytoplasmic sperm injection (ICSI).

Surgery for male infertility

Fertility may be impaired by varicocele, or the bloating of veins inside the testes. This condition can be surgically treated.

The tubes within the male reproductive system that transport sperm may be blocked, perhaps by injury or vasectomy. In some cases, the blockage can be surgically removed and the tubes repaired.

If this doesn't work, the man may undergo another surgical procedure called percutaneous epididymal sperm aspiration (PESA). Under local anaesthetic, a slender needle is inserted into the epididymis, which is the tube at the back of the testicle that collects and stores sperm. Sperm is removed, and either used immediately for IVF or frozen for later use.

Hormone therapy

The pituitary gland in the brain releases hormones called gonadotropins, which stimulate the testicles to produce sperm. In a small number of cases, male infertility is caused by insufficient levels of these gonadotropins. Taking a synthesised version of these hormones may boost sperm production.

Artificial insemination

The man's semen is collected, washed and concentrated, then introduced into his partner's uterus through the cervix. This option may be chosen when:

- The concentration of sperm in the man's semen is low
- The man has functional problems, such as impotence
- The man's seminal fluid contains antibodies against his sperm
- The woman's cervical mucus is abnormal and it interferes with sperm transport.

In vitro fertilisation (IVF)

In vitro fertilisation (IVF) is conception outside of the human body. The woman undergoes ovulation induction (hormonal stimulation of her ovaries) and a number of eggs are collected. This is done through the vagina under ultrasound control.

The collected eggs are mixed with sperm previously collected from the woman's partner, and placed in a special incubator. The fertilised eggs develop into embryos which are then implanted into the woman's uterus via a thin tube inserted through the cervix, again under ultrasound guidance.

Intra-cytoplasmic sperm injection (ICSI)

Sometimes, semen contains too few sperm to make fertilisation possible through IVF or there are a high number of structurally abnormal sperm. In this case, intra-cytoplasmic sperm injection (ICSI) can be used. The eggs are removed from the woman's ovaries, then each is injected with a single sperm. The fertilised eggs develop into embryos that are then transferred into the uterus at the appropriate time.

Pregnancy isn't always possible

Despite the sophistication of assisted reproductive technologies, pregnancy doesn't always happen. It depends on a range of factors, including the type of technology used and the reasons for the man's infertility.

It should be remembered that assisted reproductive technologies can't improve the quality of sperm.

Some men may have a complete absence of sperm in their semen. This condition is called azoospermia. In such cases, if sperm cannot be recovered surgically from the testes, donor sperm may be used. This involves artificially inseminating the partner with sperm from an anonymous or known donor.

Where to get help

- Your local doctor
- Obstetrician or gynaecologist
- Family Planning Victoria Tel. (03) 9257 0100
- Monash IVF Tel. (03) 9429 9188 or 1800 628 533

Things to remember

- Around 40 per cent of fertility problems originate in the man, with causes including sperm abnormalities and blockages within structures of the reproductive system, such as the vas deferens.
- Some of the reproductive technologies available to infertile men include surgery to clear blockages, hormone therapy, artificial insemination, in vitro fertilisation (IVF) and intra-cytoplasmic sperm injection (ICSI).

This page has been produced in consultation with, and approved by:

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