

Conceiving a healthy baby depends on a number of factors, including healthy sperm. In fact, male infertility is the second biggest issue after a woman's age so it's important to understand how the male reproductive system works.

Male factor infertility affects around half of all infertile couples, but the good news is that the most common causes of male infertility are easily diagnosed and most can also be treated. The causes include lifestyle factors; problems with sperm production, movement or shape; sperm antibodies; chromosome and DNA abnormalities; hormonal problems or erectile and ejaculation difficulties.

## CAUSES, SYMPTOMS & TREATMENTS

Male infertility is caused by problems that affect sperm production or the transport such as:

- Blocked/absent vas deferens (tubes)
- Low sperm number and/or poor sperm production
- High numbers of abnormally shaped sperm
- Failure of sperm production
- Anti-sperm antibodies
- Sperm DNA fragmentation

In rare cases a genetic disease such as cystic fibrosis or a chromosomal abnormality could affect male fertility. Some men may have more serious medical problems, such as low male sex hormones or testosterone levels.

### Problems with sperm production

The most common causes of male infertility are called:

- Azoospermia, no sperm cells are produced
- Oligospermia, where few sperm cells are produced
- Teratospermia, where a high proportion of sperm is abnormally shaped

# MALE INFERTILITY

- Blocked or absent vas deferens
- Vas deferens is the tube that transports the sperm from the testes
- Genetic condition such as cystic fibrosis or chromosomal abnormality
- High sperm DNA fragmentation that can affect a sperms ability to fertilise an egg
- Sperm antibodies that can interfere with sperm motility and fertilisation

It's usually a good sign if you have ever conceived a baby with any partner in the past, but this may not mean that your sperm is compatible with your current partner.

## **How do you treat male infertility?**

There are not many treatments that will improve the quality of the sperm themselves. However there are a number of treatments available to help a couple make the best of sperm quality as it is, and achieve a pregnancy. These include:

- Lifestyle changes
- Simple drug treatments such as Gondotrophin to improve sperm numbers
- Intrauterine insemination if sperm abnormalities are not too severe
- IVF/ICSI for severe sperm abnormalities which involves injecting a single sperm into each egg to achieve fertilisation
- Micro-epididymal sperm aspiration (MESA) to surgically retrieve sperm from the epididymis if there are no sperm in the ejaculate or from the testes themselves with Testicular Sperm Aspiration (TESA).

## **What affects sperm quality?**

- Health and lifestyle factors such as smoking, excessive drinking, drugs including steroids and recreational use, weight and Body Mass Index (BMI).
- Past medical conditions such as undescended testes, hernia, STD or severe trauma
- Acute viral illness (mumps, flu, HIV) can also affect sperm health

## **Other causes of male fertility:**

### **Retrograde ejaculation**

Retrograde ejaculation is a condition in which some or all of the semen flows backwards into the bladder rather than out through the urethra during ejaculation. Symptoms include producing little or no semen during ejaculation and can be diagnosed with a urine sample and semen analysis.

### **Immunological infertility**

Male immunological infertility occurs when a man develops antibodies against his own sperm. These anti-sperm antibodies attach to the sperm affecting the way they move and their ability to penetrate a woman's cervical mucus and fertilise the egg. The presence of anti-sperm antibodies is commonly the result of vasectomy, injury or injection but it does not mean a man won't be able to conceive a child.

### **Hyperprolactinemia**

Hyperprolactinemia refers to elevated levels of prolactin hormone in the bloodstream. In men this can cause infertility by affecting the function of the testicles, decreased testosterone levels, decreased sex drive, and abnormal sperm production.

## **Occlusion**

Occlusion refers to a blockage in a man's reproductive system, often in the epididymis or vas deferens, which prevents a sperm reaching the urethra. Occlusions in men could be a result of injury, vasectomy or congenital condition.

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## **Lifestyle factors**

There are a number of ways that men can improve the quality of their sperm to help achieve a successful pregnancy with their partner. The lifecycle of a sperm is only 72 days, so with a few lifestyle changes many men can improve the quality of their sperm within just a few months.

A few simple changes to your diet and lifestyle could help improve your overall health and fertility.

## **Stop Smoking**

Active and passive smoking harms sexual and reproductive health in both men and women. For men it can damage sperm DNA and increase the chances of miscarriage and likelihood of childhood cancers.

## **Do not use steroids**

Many men are tempted to use anabolic steroids to improve muscular strength and body fitness. However, these have a serious and sometimes permanent effect on sperm production and can result in shrunken testicles.

An absolute no-no for anyone planning a family in the near future.

# EVERYTHING YOU NEED TO KNOW

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# MALE INFERTILITY

## **Limit alcohol intake**

Daily consumption of alcohol and binge drinking is known to affect your fertility. Try and follow the rule of 'everything in moderation'.

## **Exercise regularly**

Sperm quality is reduced when men are too sedentary. Sitting on testicles for hour's everyday can cause them to overheat and halt sperm production. Regular exercise will also help maintain a healthy weight.

## **Stop recreational drugs**

Recreational drugs such as marijuana (cannabis) and cocaine can decrease sperm quantity and increase the number of abnormal sperm.

## **Have frequent sex (or at least frequent ejaculation)**

Sperm does not become more potent if a man abstains from sex or ejaculation, in fact, it is the opposite. Ejaculate or have sex 2-3 times per week from day 7 until at least day 21 of your partners cycle, so sperm is not stored for too long in the testicles where it can be damaged.

## **Eat a healthy diet**

Men should eat a balanced diet - try to include more fresh vegetables, fruit and lean red meat. Foods particularly rich in antioxidants help improve sperm health such as berries, pumpkin seeds and colourful leafy vegetables.

## **Maintain a healthy weight**

Having a high or low BMI can affect sperm concentration and count. If you are overweight, try to reduce your weight as obesity can be linked to fertility. Even a small reduction in weight can make a difference.

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## **When to seek help ?**

I recommend that you should book an appointment to see a GP/fertility specialist together with your partner if you've been trying for more than 6 months when the female partner is over the age of 35 or for more than 12 months, if the female partner is under 35.

As semen analysis is a relatively simple test that can be used to evaluate your fertility. It measures the number of sperm, their motility (ability to move), their morphology (size and shape) and the volume and consistency of the ejaculated sample.

If I'd had a penny for every time my male clients said they'd been properly screened by their GP/fertility clinic then I'd be rich..... Most couples are unaware that a semen analysis is the bare minimum when it comes to male fertility screening. Its a good start but it really doesn't give a full picture.

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