

in the know

What No One Tells You
About Male Fertility



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foreword



Infertility is not a word that often appears on a man's radar. Talk of fertility problems in the male domain – whether that's the shed or the local sporting club – can be either non-existent or uncomfortable.

Many men are completely unaware of reproductive issues – often leaving such matters for their partner to research and understand. For some, the first they learn about their own fertility is when their partner shows them a positive pregnancy test. For others, it's the first visit to a doctor to discuss why pregnancy isn't happening like it 'should'.

It can be difficult for us to acknowledge and deal with an infertility problem. The particular challenge we often face is to understand what is going on as we support our partners through a difficult time and try to understand the impact on us personally.

If this is where you are at, firstly, I'm sorry to hear it. It can be a tough time where you may feel totally out of control of so many aspects of life. Finding information that men can understand can be difficult, but I believe you will find *In the Know* a helpful guide to understanding what is happening and what you can do. Containing insightful and practical information and advice the booklet covers infertility, explaining where problems may arise, how you might feel during the process and how to manage things when times are tough.

What's happening to you is not unusual. Up to one in six couples around the world will experience difficulties conceiving.¹ Infertility can be an isolating experience but there is a lot of information and support available through your clinic and also through patient associations like AccessAustralia. Don't hesitate to get the help you need and deserve.

All of us at AccessAustralia wish you every success as you try to have a child. And I personally wish you well as you tackle one of life's unexpected hurdles.

Sincerely,

A handwritten signature in black ink that reads "David Rawlings". The script is fluid and cursive, with a long, sweeping underline that extends to the right.

David Rawlings, Chair, AccessAustralia

David Rawlings is Chair of AccessAustralia and works with the International Consumer Support for Infertility group, which represents infertility associations in 59 countries. Importantly though, David and his wife went through five years of IVF treatment. He is a speaker at infertility conferences and events in Australia and has spoken also in South-East Asia and the Middle East. He is the author of *Swimming Upstream*, one of the few books addressing issues that couples face with a down-to-earth male perspective – helping men who wish to understand themselves and the women who want to understand what is going on inside their man's head.



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chapter one



Understanding

Male Infertility

It seems like no matter where you go or what you do, you'll see stereotypes of men who can't stop thinking about sex – from television and movies to advertising. The need to reproduce is natural and the male anatomy is there to do its job. When it doesn't and the reproductive functions fail, it can be difficult to accept. Some men may even think their sexuality is undermined if they are the cause for the failure to conceive. Getting your partner pregnant shouldn't be this hard, right?



While infertility is not something anyone expects will happen to them, there are nevertheless many men who experience fertility problems.² In fact, a couple's infertility is just as likely to arise from complications in the man as those in the female partner.³ Yet infertility remains a subject men largely don't want to talk about – not even with their doctor.²

Admitting that something is wrong, that you and your partner might have fertility issues, is not easy. Infertility may affect a man's sense of masculinity and performance anxiety can become a major issue as sex goes from being enjoyable and spontaneous to regimented and a means to an end: to make a baby.²

Given these effects, it's important to keep things in perspective – you are not the first man to have fertility issues and you will not be the last. In fact, as noted earlier, infertility is quite common.^{1,3} If you and your partner have been unable to become pregnant after a year of regular, unprotected intercourse, then you should both seek help from your GP. (If your partner is 35 years of age or older, you should both seek help from your GP after six months of trying.) If required, your GP may refer you to a fertility specialist to identify where the problem exists, or to rule out other medical conditions which can sometimes present as a male fertility issue.²

Not surprisingly, for most men, infertility can be traced back to the reproductive organs and their primary product, sperm.

Despite what school sex education diagrams might have led you to believe, sperm are not simple, tadpole-type creatures. Furthermore, they aren't all that tough, though the journey they undertake from ejaculation to fertilisation certainly is. The following information may shed some light on how sperm are manufactured and the impact it may have on fertility.



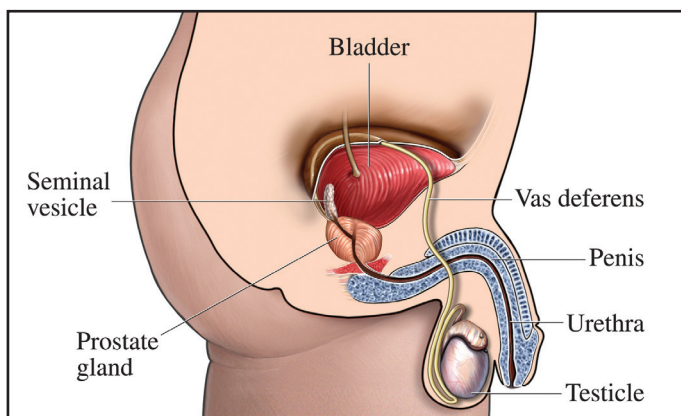
Sperm Production

Sperm are highly specialised cells, comprised of a head where chromosomes are stored and a tail that enables movement. Sperm cells are produced by the testes glands (testicles), which are located in the scrotum. The scrotum maintains a lower than normal body temperature to help sperm develop properly.

As sperm are produced they pass from the testes to the epididymis, an organ that stores and nourishes the sperm as they mature.

Sperm cells are then transported from the epididymis, through a long tube called the vas deferens, to a small pouch-like reservoir, called the seminal vesicle. This reservoir is located adjacent to the prostate gland.

At this point, a fully developed and healthy sperm is able to fertilise a female's egg. The sperm development process, from production to full maturation takes two-to-three months.



During intercourse, sperm combine with fluid from the seminal vesicle and prostate gland to create semen. When ejaculation occurs, semen is discharged from the penis via the urethra (a tube that runs from the bladder to the end of the penis).

Once deposited into the woman's vagina, sperm can live within the female reproductive tract for 48–72 hours, during which time they retain the ability to fertilise an egg.

The average man has about 70 million sperm per milliliter (mL) of ejaculate, though only about half of these are actively swimming. Concentrations above 20–40 million per mL are considered optimal, with 15 million sperm per mL regarded as the lower limit for fertile men. A man's ability to get his partner pregnant naturally decreases as this number falls. Having said this though, about a third of men with lower sperm levels (1–5 million per mL) will still achieve a pregnancy over a few years.⁴ Sperm production in men is closely regulated by reproductive hormones such as Follicle Stimulating Hormone (FSH) and Luteinising Hormone (LH), which also play a central role in female reproduction.

Of the millions of moving sperm normally deposited into the vagina during coitis (sexual intercourse), only a few hundred get close enough to the egg for fertilisation. Given this low rate you can understand why the normal anatomy and function of male reproductive organs, as well as properly balanced reproductive hormones, are so important for male fertility.



Possible Causes of Infertility in Men

There are various elements that can affect male fertility. Consider the following list, and you may want to discuss your history and any concerns with your physician.

Medical History

- History of undescended testes as an infant or child^{5,6}
- History of cancer treatment including surgery, chemotherapy or radiation^{5,6}
- Previous abdominal or urologic surgery or surgical sterilisation^{5,6}
- History of genital or prostate infection^{5,6}
- History of sexually transmitted infection (STI)^{5,6}
- Retrograde ejaculation – ejaculate containing the sperm flows backwards into the bladder instead of leaving the penis. Retrograde ejaculation is most commonly caused by surgery affecting the nerves or muscles that control the urinary bladder. e.g. prostate surgery^{5,6}
- Family history of cystic fibrosis or other genetic disorders^{5,6}
- Certain types of prescription drugs¹² or anabolic steroids^{5,6}
- Mumps after puberty^{5,6}
- Increasing age; older men take longer to cause conception and their partner is more likely to miscarry^{5,6}
- Sexual, erectile or ejaculation difficulties^{5,6}
- Testosterone deficiency due to decreased secretion from testes – symptoms include low libido, tiredness, mood change and poor muscle development^{5,6}



Lifestyle and Environment

Certain lifestyle factors can impact your fertility. Talk to your doctor to see if changing any of these aspects of your life could make a difference:

- Prolonged exposure to high heat (e.g., hot tubs, spas) can lower sperm quality^{5,6}
- Excessive alcohol consumption and any level of smoking have been shown to compromise fertility in men^{5,6}
- Many lubricants, including petroleum jelly or vaginal creams, may affect sperm quality^{5,6}
- Exposure to toxic substances such as pesticides, radioactive materials, and strong electromagnetic or microwave emissions in the workplace or home may lead to sperm abnormalities^{5,6}
- Increased scrotal temperature (e.g., arising from obesity, prolonged sitting and use of laptop computers on your lap) may adversely affect sperm production^{5,6}
- Illegal drugs, such as cocaine, anabolic steroids and unspecified muscle-building products (from gyms or the internet), can affect sperm production and function^{5,6}
- Some prescription medicines, if taken without medical supervision, or those used in some medical treatments, can also negatively influence male infertility. e.g. chemotherapy medications.⁷



Physical Changes to the Body

Certain findings of concern can be uncovered by a physical examination, such as:

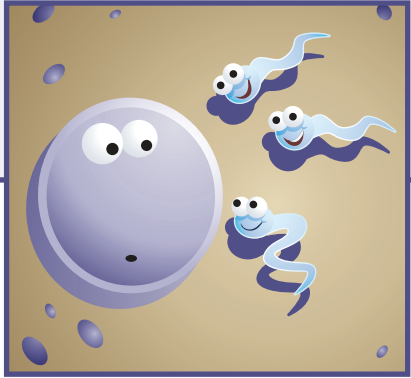
- **Scrotal varicocele (large veins around the testicles)** - typically occur more frequently in infertile than fertile men. Varicoceles are varicose (abnormally enlarged) veins present around one or both testicles, impairing scrotal cooling to hinder sperm number and movement or function^{5,6}
- **Undescended testis** - testis not reaching its normal position in the scrotum, causing it to function abnormally and potentially not produce sperm^{5,6}
- **Atrophy of the testis** - suggesting poor quality sperm as the cause of infertility
- **Abnormal penile anatomy**
- **Testosterone deficiency** - as suggested by reduced body hair, poor muscle development and a slight degree of breast development
- **Cancer** - a tiny percentage of patients that present with male infertility (in particular those with a history of undescended testes) may have an underlying cancer, which can be identified in a thorough physical examination by a male fertility specialist⁸



All About Sperm

Several factors play a role in determining success:³

- Sperm count (number of sperm)
- Sperm motility (ability to move)
- Forward progression (quality of movement)
- Sperm morphology (size and shape)
- Semen volume (amount of fluid that is released)



The Bottom Line: Once diagnosed, many of these causes may be treatable, so talk to your doctor as soon as possible.





After you and your doctor have reviewed your medical history in detail and you have completed a physical exam, including a blood and semen analysis and any other tests you might need, your doctor may recommend starting some form of fertility treatment. While it may not be what you wanted to hear, it is a positive first step.

Before you agree to undergo any treatment, take some time to think about what questions you have for your doctor. There is a list in Chapter 4 to help get you started.



Ways to Treat Male Infertility

- **Procedures to Fix Varicoceles** – Repair of these enlarged veins may be achieved with surgery or the insertion of a metal coil in the abdominal veins that drain the testes. For some men this may result in improved sperm quality, though it cannot be predicted who will respond to treatment. At present there is no clear evidence that the procedure improves pregnancy rates and this option should be discussed with a specialist urologist.⁹
- **Hormone Therapy** – In a small proportion of men, medication to restore the normal hormone balance can improve sperm production. But be careful, some hormone treatments, such as pure testosterone, can worsen male infertility – so discuss this thoroughly with a fertility specialist.⁵
- **Treat Infections of the Genital Tract** – Some infections may harm sperm, but most can be treated with appropriate antibiotic therapy.⁵
- **Reconstructive Procedures** – Reverses blockages of the male reproductive tract in the vas deferens, epididymis and areas of ejaculation.⁵
- **Electroejaculation** – Produces ejaculation when neurological dysfunction prevents it.⁵
- **Sperm Retrieval** – This is a simple procedure whereby sperm are obtained directly from the testes or epididymis. A separate laboratory procedure then isolates and prepares the healthiest sperm for Intracytoplasmic Sperm Injection (ICSI) or in vitro fertilisation (IVF).
- **Intrauterine Insemination (IUI)** – This is where sperm are inserted directly into the uterus. This ensures a greater number of sperm are placed closer to the egg than would be the case following sexual intercourse. IUI is performed close to the time of the female's ovulation.



- **In Vitro Fertilisation (IVF)** – Used to overcome a variety of fertility difficulties, particularly tubal problems and where a significant reduction in healthy sperm parameters exist. During IVF, medications are usually used to stimulate the development and release of a woman's eggs. The eggs and sperm are then collected and placed together in a laboratory dish to fertilise. If successful, the embryo(s) is(are) transferred into a woman's uterus for implantation.
- **Intracytoplasmic Sperm Injection (ICSI)** – ICSI is a specialised type of IVF, in which a laboratory technician, using a microscope, injects a single sperm directly into each egg. ICSI is usually used when laboratory analysis suggests the sperm could have difficulty penetrating the egg. Once the sperm is inside the egg, nature will determine if fertilisation occurs. This is not always the case, however, if fertilisation does occur after ICSI, the embryo(s) will later be transferred into the uterus.

Interesting Statistics

- Most infertile couples (85–90%) are treated with conventional therapies, such as medication and surgery.³
- Less than 3% of couples are treated with more sophisticated procedures.³

Remember, there are many treatments and options available to build your family. Learn as much as you can, and don't be afraid to ask questions.

The Bottom Line: Your doctor can help get you through the medical jargon and your treatment; there are other resources like Access Australia, a patient support organisation and the Fertility Society of Australia (or FertilityNZ in New Zealand), to provide broader assistance with information and services to help get you through the challenges of this period.



chapter three



Knowing that you might have fertility issues can impact on your sense of masculinity and your sense of self. Unfortunately, the added anxiety you might feel during this time can also affect your sex life. Going through reproductive issues can be extremely nerve-racking and even lead to low self-esteem, depression and marital problems. You may lose the urge to have sex, or when you try, you may struggle to achieve or maintain an erection.⁹ The stress of infertility may be preventing you from having sex, but you need to have sex in order for you and your partner to have any chance of getting pregnant. Thankfully, this self-compounding cycle is usually only temporary and there are approaches to deal with the problem.

It has been found that a lack of knowledge combined with fear might be an underlying factor in a man's reluctance to seek or continue medical treatment for this condition.¹⁰ Additionally, men struggling with infertility have reported fearing others will

judge them as inadequate.¹⁰ While it might seem easier to keep it all to yourself – and men often want to skip this part, hoping to be able to take decisive action and move on – you should be proactive. By taking some small steps, you may improve your sex life and your relationship, and work toward finding a solution to your fertility problems.

Use these tips to help you get through those tough times:

- **Take control** – By taking the initiative to educate yourself, you are taking control of the problem. Understand the process as best as you can by asking questions at the doctor's office and learning more through Web sites such as AndrologyAustralia.org, Access.org.au and Fertility.com.
- **Find a way to blow off steam** – Do anything to get your blood pumping and shake off those thoughts of self-doubt. Work out. Go running. When you release stress by exercising, you also release endorphins and it might even give your libido a boost.
- **Have the difficult conversation** – We all know that men and women communicate differently, but infertility is something you will have to deal with together. Most women want to discuss infertility at every turn – not only the medical aspects and decisions, but also all of their feelings and yours too. Be upfront when you need a break from the topic, but be open to talking about it as well. You need to tell your partner when YOU are ready and want to talk and frankly, there are key issues you will want to consider as a couple.
 - “What I need from you to get through this is...”
 - “What can I do to best support you throughout this process?”
 - “What are we willing to tell our family and friends?”
 - “How do you want me to handle it if my family is pushing us for answers?”



- **Give your partner some “TLC”** – Remember, you may have only started thinking about what fatherhood will be like, but perhaps your partner has thought about it for considerably longer. She may be experiencing feelings of disappointment or hopelessness that are isolating and difficult to manage alone. Acknowledge the stress of the situation and assure her that you are in this together. You can’t take the pain away, but just being there for your partner will help. Let her talk, cry and share her feelings, empathise and show her that her concerns about becoming a parent are yours as well. Surprise her with flowers, or plan a date night or weekend getaway. Have sex for the pleasure of it – not just when the time and temperature are right. It will remind her – and you – that you were a couple before you wanted to have a baby, and you’re still one.
- **Get support** – This is a lot to deal with, so if you need to talk to someone, that’s okay. There are a lot of great support groups and counsellors out there. Ask your doctor’s office about where you can get additional help if you need it. Talking to someone with expertise in the area and who can listen objectively can help put things in perspective.

The Bottom Line: If your stress interferes with your daily routine or is having a negative impact on your sex life or your relationship, actively take steps to see how you can turn this around.





chapter four

Your Game Plan

Many couples become overwhelmed trying to sort out the medical and/or insurance coverage. To help ease your frustrations, below is a suggested game plan – a checklist of questions, with information and resources to help focus your attention on what's important.

Where to Turn for Help

The following organisations provide information and support:

AccessAustralia www.access.org.au

Ph: 1800 888 896

Email: info@access.org.au

AccessAustralia is Australia's national infertility network and provides numerous services and resources for people having difficulty conceiving.



Andrology Australia www.andrologyaustralia.org

Ph: 1300 303 878

Email: info@andrologyaustralia.org

Andrology Australia (The Australian Centre of Excellence in Male Reproductive Health) is the peak Australian authority on male reproductive health and associated conditions.

Andrology Australia provides a range of information on men's health, including male infertility.

FertilityNZ www.fertilitynz.org.nz

Ph: In New Zealand, phone (03) 332 7790 or 0800 333 306

Email: contact.us@fertilitynz.org.nz

FertilityNZ is New Zealand's national network for those seeking support, information and news on fertility problems.

Questions for Advocacy Organisations

- What kinds of programs and services do you offer?
- Are there any materials or programs specifically for men?
- Do you have a local chapter or any upcoming events in my area?
- Can you tell me about any financial assistance programs or government subsidies available for fertility treatment and/or counselling services?
- Can you provide a list of infertility clinics licensed by the Reproductive Technology Accreditation Committee?



Questions for Your Doctor

- What specific tests would you recommend to diagnose my/our infertility?
- Based on the test results, what are my treatment options and how much do they cost?
- What should I expect from each treatment option and what are the risks?
- What is the success rate for those treatments in terms of live births?
- How long have you been doing this and what is your success rate?
- What is the time frame for moving on to the next phase of treatment, if needed?
- Does your centre work closely with a male fertility specialist to help determine the cause of my infertility and rule out any associated serious medical conditions?
- How will I communicate with you during this whole process?
- Can you confirm what is covered by my health insurance policy?
- Do you offer a payment plan or work with any organisations that do?
- Does your centre provide emotional counselling or can you refer me to a counsellor who deals with fertility problems?
- How will my sex life be impacted by my infertility or treatment?



Costs and insurance

Private Health Insurance

If you are considering any fertility treatments, the first step is to review your health insurance policy with a fine-toothed comb. IVF and other assisted reproductive services aren't automatically covered on policies that cover natural births and obstetrics. Even in private hospital insurance policies that include IVF, only the component involving an admission to hospital may be covered. In Australia, some services that occur outside of a hospital admission, such as consultations and tests, may be claimable on Medicare. In other cases, these fees may need to be paid out of your own pocket.

Within Australia, further general information on private cover can be accessed at the website of the Australian Government's Private Health Insurance ombudsman: www.phio.org.au/facts-and-advice/obstetrics.aspx

Insurance and medical cover in Australia and New Zealand differ, so before you begin treatment, it is recommended that you ask your private health insurance company about the most appropriate level of cover for you. Check to confirm what services you will be required to pay for and that you have completed any required waiting periods. The standard waiting period of IVF treatment is 12 months but some policies also restrict benefits for up to three-years. Check with your doctor and IVF clinic for more information and quotes.



Treatment Costs in Australia

Most fertility clinics or specialists in Australia will provide you with a detailed list of the costs involved in IVF and assisted reproduction procedures. A timeline of when fees are due and the proportion of costs covered by Medicare (where applicable) will also be detailed. You should be reassured that a large portion of the costs for pathology/diagnostic tests and some treatment procedures can be refunded through Medicare and private health insurance depending on your level of cover. In addition, the Medicare Safety Net subsidises some of the costs once you have paid a certain threshold amount (See information on the following page).

Additional 'out-of-pocket' expenses - those not covered by Medicare and/or Private Health Insurance - might be eligible for Taxation Rebates consideration. You should check with your Tax Agent to see whether these apply in your situation.



What is the Medicare Safety Net?

In addition to the standard automatic Medicare rebate you receive, the Medicare Safety Net covers a certain amount of the out-of-pocket costs for medical services provided after a particular threshold amount per calendar year is reached. Out-of-pocket costs are the difference between the Medicare benefit and what your doctor charges you. This includes specialist consultations and outpatient IVF services.

In order to be eligible, all of your family members must register for the Medicare Safety Net (even if they are listed on your Medicare card) as individual medical costs are combined and you will reach a threshold sooner. Individuals are automatically registered.

Many couples accessing fertility treatment for the first time are unlikely to have reached the Medicare Safety Net threshold prior to beginning treatment. This means that your first treatment cycle is likely to cost you more than any subsequent treatment cycles within the same year. Please note that at the end of December each year, your amount towards the threshold is returned to zero not rolled over to the next year.

For more information on the Safety Net threshold amount relevant to you and to register, call Medicare on 132 011 or by filling in an online form available at www.medicareaustralia.gov.au



Publicly Funded Treatment Costs in New Zealand

Joining a PHO (Primary Health Organisation) will entitle you to subsidised visits to your general practitioner and may also cover the costs of certain laboratory tests. Specialist care through the public system is free but waiting times will vary depending on your region and the type of treatment required. Private health insurance may pay a certain amount of your costs towards certain tests depending on your level of cover. For more information visit www.moh.govt.nz/primaryhealthcare

Government Funded Fertility Treatments

If you are a New Zealand citizen or have permanent residency, you may be eligible for two 'packages' of government funded fertility treatment. A 'package' means:

- One full IVF cycle including transfer of any frozen embryos
- Or four cycles of interuterine insemination (IUI)
- Or other treatment such as ovulation induction, donor sperm insemination or surgical sperm retrieval.

To be eligible, your doctor will assess you by using a scoring system called the Clinical Priority Assessment Criteria (CPAC).

The Bottom Line: You've hit a speed bump on your road to fatherhood; but chances are you're otherwise healthy. Stay strong, keep your eye on the prize and use the many resources available to help make your vision of a family become a reality. And remember, you are not alone in this journey!

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