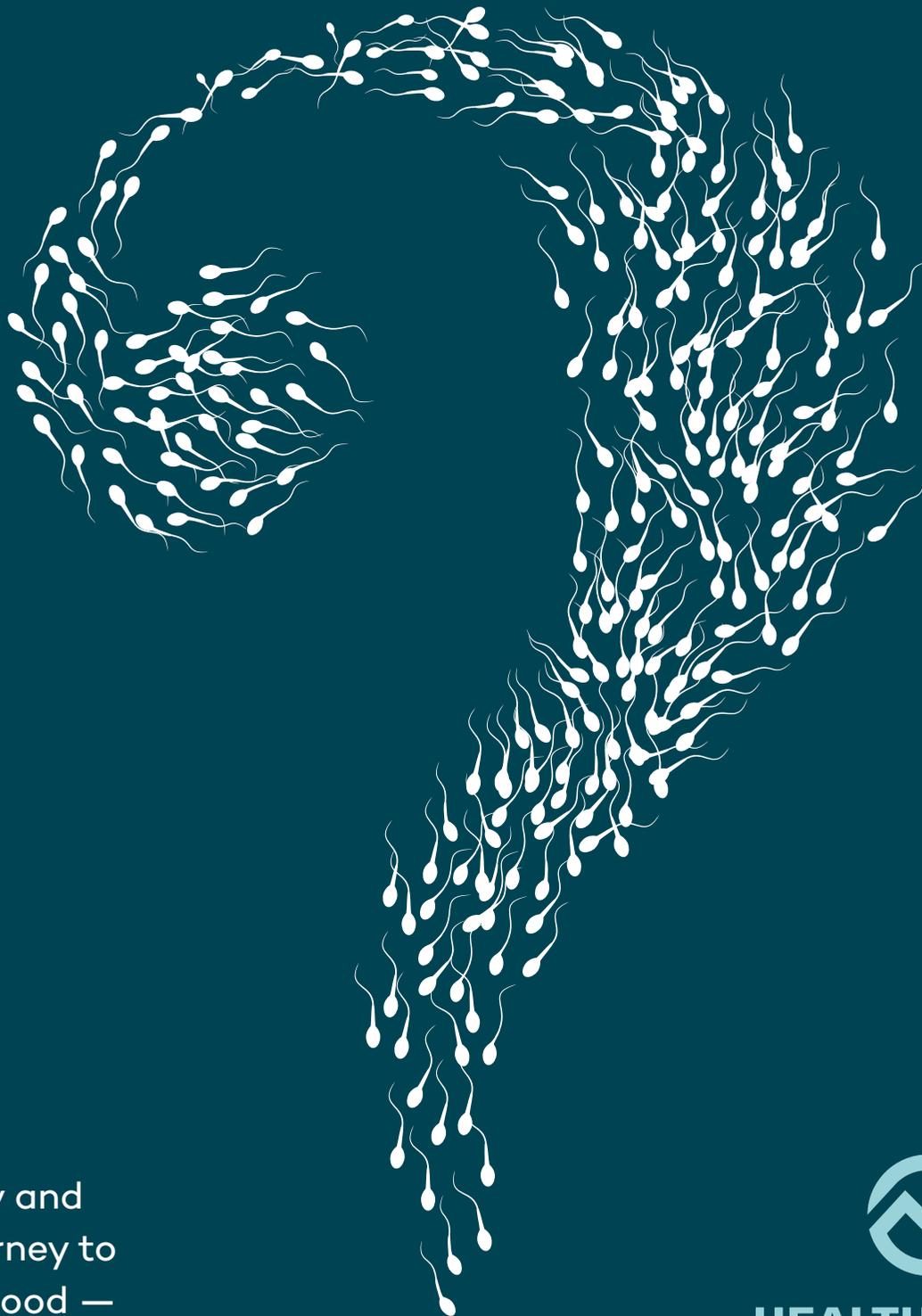


# THE MALE

JAN 2020 | ISSUE #2



Fertility and  
the journey to  
fatherhood —  
the facts



**HEALTHY MALE**  
ANDROLOGY AUSTRALIA



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We ask four people: How does the health system need to change to better support the needs and roles of fathers and potential fathers?.

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# YEAR OF THE NURSE & MIDWIFE

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This year is the International Year of the Nurse and Midwife. We thank all Australian nurses and midwives for their hard work and contribution to the community.



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# Welcome

Given our organisation's recent rebirth, our focus on fertility in this issue is pretty apt. We've worked hard to rebrand ourselves and to extend our reach, creating a fresh look and voice for Healthy Male.

In 2020, we'll be exploring new ways to connect with young men, and this will be the key focus of HYMTech, a major conference that we are co-hosting in June. Over three days, we'll be looking at how the effective use of digital technology can change health behaviours and how the right voice and the right campaign can create lasting change. This is a real opportunity; we know that young men engage with digital platforms, so health organisations must learn to navigate this space.

Plus Paternal: A focus on fathers, looks at how best to engage with men from pre-conception to early fatherhood. The first stages of Plus Paternal are underway with targeted interviews and literature reviews being conducted. The next steps will be collating the information and holding a round table event where we'll discuss what needs to change to include fathers better, whether it's through education, system change or other means.

This year is the Year of the Nurse and Midwife. Both are vocations that need to be celebrated more often. Nurses are a key channel of medical information to men, and as busy as they are, nurses

still seem to find opportunities to talk to men about their health. We see nurses at conferences throughout the year, and what always impresses me is their hunger for knowledge; they'll hunt us down at the end of a presentation to learn more about our latest research. We work closely with our invaluable Primary Health Care Nurse reference group to fine-tune how to share information, and we're looking forward to seeing our colleagues enjoy the spotlight in 2020.

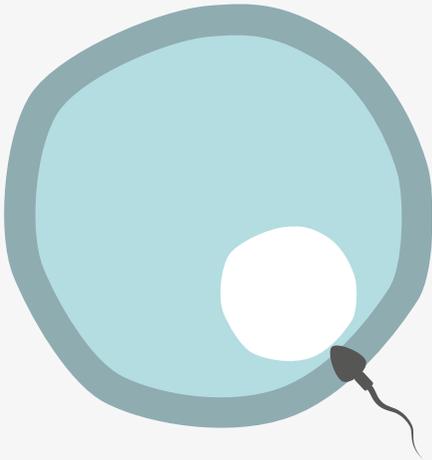
When we meet with our nurse reference group, we often hear stories about the men that they're working with and the challenges they face. We're lucky enough to have two men sharing their stories in this issue of The Male. Having real people tell their stories of how they dealt, or are continuing to deal with, the issues that we talk about every day is better than any fact sheet.

In 2020 we want to keep creating better health outcomes for all males and see the benefits extend beyond the men themselves to the wider community.



Simon von Saldern  
Healthy Male CEO

# Did you know!?



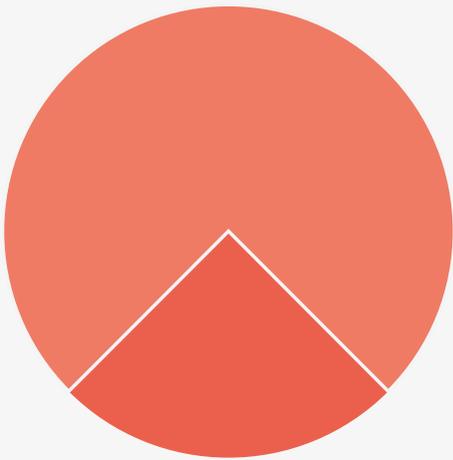
## Timing is important!

To improve the chances of getting pregnant, sperm must enter the vagina at the fertile time of a woman's menstrual cycle.

**Each ejaculation of a fertile male contains tens of millions of sperm.**

Conditions in men, like obesity, can lead to genetic changes in the sperm. This is called an 'epigenetic change', and it can affect the health of the man's child in later life.

**Steroid abuse can cause testicles to shrink, erectile dysfunction and low sex drive.**



About

# 25%

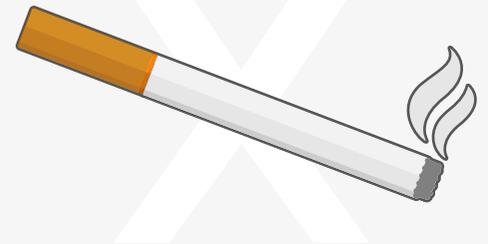
of men over the age of 40 have had a vasectomy.

# 1 in 20

**men have low numbers of sperm in their ejaculate.**

It takes about 70 days for a man to make a fully mature sperm that is able to fertilise an egg.

**In most cases of male infertility, there are no obvious signs.**



Cigarette smoking reduces sperm quality. Studies have shown that smokers have a lower sperm count, reduced semen volume, poor movement and damaged sperm DNA.

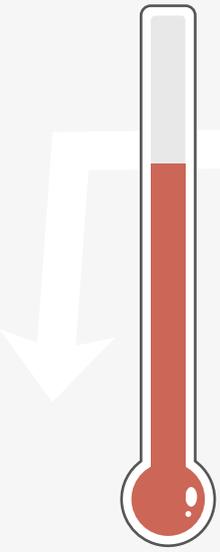
**After puberty, males continually make new sperm – millions every day!**

The scrotum keeps testicles about

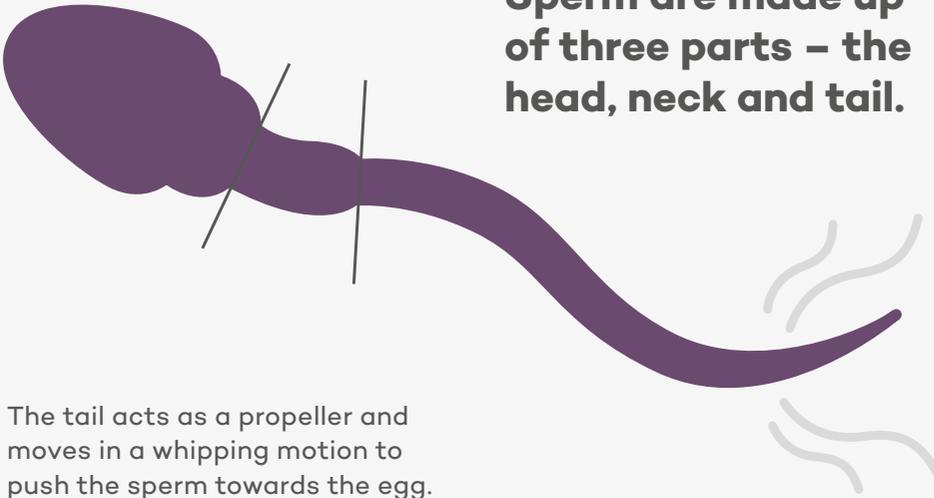
**2° cooler**

than the core body temperature.

This is important for fertility as a cooler temperature is needed to make sperm.



Sperm are made up of three parts – the head, neck and tail.



The tail acts as a propeller and moves in a whipping motion to push the sperm towards the egg.

**1 in 100**

men have no sperm at all in their semen.



Sperm are microscopic in size! Each sperm is only 0.05mm long and cannot be seen by the human eye.

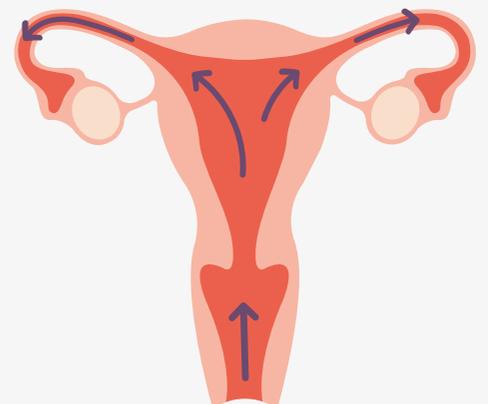
On average



**2 out of 3**

couples conceive within three months of trying.

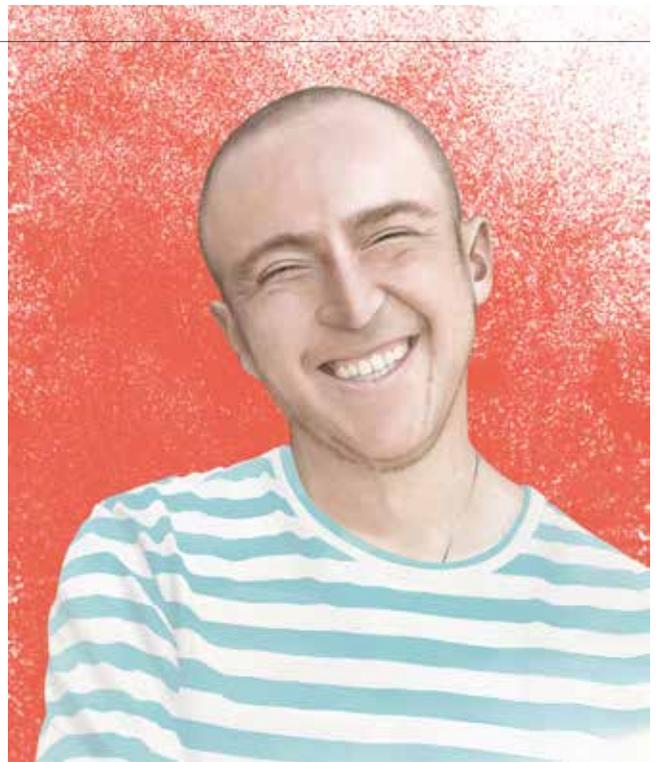
In almost half of all couples with fertility issues, the male partner's health is a contributing factor.



Once in the vagina, sperm travel through the woman's uterus and into the fallopian tubes where they meet the egg. This is when fertilisation can happen.

# Living my best life

**In 2016, Joe Bakhmoutski was diagnosed with testicular cancer. Since then he has set up Simplify Cancer, a site that includes a podcast, videos and a book about finding better ways of dealing with cancer. He is passionate about helping people who have been diagnosed with cancer to stay on top of their worries during treatment and beyond. He tells his story here.**



**I** was in the shower when I felt a hard lump in one of my testicles. I remember feeling something was really wrong and I became numb with fear. I raced to my doctor later that morning. She did a physical examination, asked about my medical history and sent me to have an ultrasound. I went from there to work and when I came out of a meeting I had three missed calls from my doctor asking me to come back in. I went in and she had organised for me to see a urologist\* later that day. The word cancer wasn't mentioned, but by now I suspected it was on the cards.

The urologist reviewed the ultrasound results. He then did a physical examination, feeling my testicles and my abdomen. It felt a little weird, having your balls touched by a stranger who wasn't your lover! Still, he didn't make me feel uncomfortable. He then sat me down and said, "I'm sorry to say this, but it is cancer." I went blank. He went on to explain what testicular cancer was, my treatment options, and that I would need an operation called an orchidectomy, which meant that the

cancerous testicle would be surgically removed. Once the testicle had been removed, it would be sent off for more tests to confirm the stage and type of cancer. He would book the operation in for four days' time.

I was shocked. I couldn't take in the magnitude of what he was saying. I didn't have time to process everything and a lot of the details slipped past me. I had to fill in a big batch of forms and he ordered more tests, including blood tests, a chest x-ray and a CT scan.

I walked straight into the nearest café and ordered a coffee. Thoughts were racing in my head. *I can't believe this is happening to me. Am I going to die? If I'm going to have chemo, will I still be able to work? Will I still be able to play with my toddler? Can I still have sex? How do I tell my wife, my mother, my colleagues?*

Follow up tests showed that the cancer had already spread to my lymph nodes. I had to see an oncologist\*\*. There's nothing like seeing an oncologist to bring it home that you have cancer. He explained the various treatments available to me given the stage and cancer type, including radiation and

chemotherapy. He gave me options and I thought to myself, *Hey, do you expect me to make the decisions? I'm just a regular guy!*

I realise now that no-one knows you like you know yourself. While I relied on my treatment team for information and expertise, I knew I had to be the one to make the decisions if I wanted to have some control over my life. It was a turning point for me because I didn't want to be passive; I didn't want things to just happen to me during the process. I wanted to get back some semblance of control at a time when things felt pretty out of control. I decided on a nine-week cycle of chemotherapy over six months.

I took our two-year-old son to his park before I started treatment. We spent the whole day there. I bought a picnic, we had fun chasing seagulls. I thought to myself, *How do I tell him? He's just a kid.* I couldn't bring myself to do it, but now I wish I had.

Before the chemo, my oncologist offered me the option of putting sperm away for storage, as it was likely that the chemo would affect my fertility. It felt a little awkward to have these conversations.

I just took it for granted that I would be able to naturally have children when I chose to. It was hard when that vision of myself didn't match my reality.

My wife was incredibly supportive. We decided to go ahead and put sperm in storage should we decide to have another child later.

The chemo process was gruelling. The worst thing was chemo fatigue. It felt like my entire life force had been drained. There were times when I felt like I was exploding inside — no other sensation comes close to describing it.

During that time, our son knew something was wrong. When he couldn't come into hospital we had Skype conversations and he could see how ill I was. I felt his hurt, that he somehow sensed we were keeping secrets from him. In the end, we talked to him about it. We said, "Dad has cancer. It's a bad disease and the medicine makes Dad feel bad. But we are going to have very special toys that you'll only have at Dad's hospital when you're there!". Things shifted after that. For example, we were going to have his third birthday at home but I was too ill to be there. We ended up having it in the chemo room. My wife was there, my mum had baked a cake, the oncology nurses sang happy birthday. It felt really good. We worked around what was going on and it became like a 'new normal'.

During cancer, even one worry made my head spin. It triggered another worry, and another, until it was all I could think about, even if it didn't make any sense. For example, in the early stages, I told myself that my

## Did you know?

Testicular cancer starts as an abnormal growth or tumour in the testes, often appearing as a painless lump

About 700 Australian men are diagnosed each year

It's the second most common form of cancer in men aged 18-39

Testicular cancer has a very good cure rate (over 95 per cent)

wife will probably leave me and that I would lose my job. But I ended up speaking with people who had lived through cancer and that changed things for me.

I had a few side effects after treatment, such as neuropathy — a tingling in your toes and fingers. It was quite painful. After a few months this went away. My hearing also started playing up after chemo — or at least that's my excuse now when I miss something my wife says! I also put on a lot of weight because of the steroids I was on while having chemotherapy, which made me eat like crazy. My oncologist told me that putting on so much weight put me at risk of getting heart disease. I saw a nutritionist who specialises in treating people with cancer. She helped me with dietary advice and an exercise plan. I've since lost a lot of weight and have a lot more energy. Eating well and exercising are now part of my daily habits.

We went through IVF to have a second child. It was complex, expensive, and we had to jump through lots of hoops. It was particularly hard for my wife, with all

the cycles of hormones. But it's been amazing — because we now have a new addition to the family, our second son and miracle baby, Max.

It was scary and confronting being diagnosed with cancer. Testicular cancer has a good recovery rate. Thankfully, six weeks after the chemotherapy was done, tests showed there was no sign of the cancer. But no one knows how things will go in the future. I have learnt to live with uncertainty, and have had to work out how to manage that in my life. It's helpful for me to know that there are options should things not go to plan. I could try different chemotherapy, have other operations, and participate in various clinical trials. I still have regular check-ups.

Having cancer has changed my life. I think we tend to go through life like we're invincible. I look at things in a completely different way now. I have connected with a feeling of living in the moment and I realise I can't put important things off until later. I often ask myself, "What if this is my last day, what would I do?". It helps me prioritise what is important. The noisy distractions fall away and I am much more present and focused.

It's also helped me think about the legacy I want to leave after I'm gone. How will I be remembered? The natural place to start for me is to try and help others who are going through this. In setting up Simplify Cancer, really the essential question I am trying to answer is "How can you have cancer and still have your best life ever?"

\*A urologist is a specialist surgeon who treats problems of the kidneys, bladder, urethra and adrenal glands. Urologists also deal with problems concerning the penis, testicles and prostate gland.

\*\*An oncologist is a specialist doctor trained to investigate, diagnose and treat people with cancer or suspected cancer.

MORE INFORMATION

[healthymale.org.au/mens-health/testicular-cancer](http://healthymale.org.au/mens-health/testicular-cancer)

[simplifycancer.com](http://simplifycancer.com)



## **Want to become a dad? Your health makes a difference to your baby's health**

There is plenty of good information about how women can improve their chance of falling pregnant and having a healthy baby. But what about fathers-to-be? Research now shows that the father's age, and his health at the time of conception, affect the chance of his partner falling pregnant and the future health of the baby. It takes three months for new sperm to develop and mature, so you'll need to make sure that you're as healthy as possible for at least three months before you start trying.

## The effect of age on sperm

Unlike women, who are born with all the eggs they will ever have, men continue to produce sperm throughout their lives. This means that they can potentially reproduce into old age. But, many people don't realise that the quality of the sperm declines as men get older. If men are over the age of 45, it takes longer for their partners to fall pregnant. Older men's sperm is also more likely to contribute to unviable pregnancies (i.e. miscarriage). And while these conditions are uncommon, autism and other mental health problems are slightly more common in children of older fathers. So, if you have a partner and want to have children, sooner is better than later.

## Getting fit for your child's future

We all know that being overweight increases the risk of health problems, but did you know that paternal obesity can also affect the health of the baby? This is because obesity affects the environment where sperm mature, and this can change how the genes that are passed on to the child from the father at the time of conception function. Changes in genes in response to the environment are called 'epigenetics' and they can affect the health of the baby at birth and in adulthood. So, if you're concerned about your weight, talk to your doctor to find out what your options are.

## Good diet and regular exercise

Whether you're overweight or not, a good diet and regular exercise also improves the likelihood of a healthy pregnancy. Australian and international guidelines recommend at least 30 minutes of moderate-intensity physical activity, such as brisk walking, cycling or heavy housework, on most, and preferably all, days of the week. If possible, some vigorous activity, such as running, playing sport or fast swimming, should also be performed every week.

## Cut back on your alcohol consumption

As part of your health mission, consider limiting your alcohol consumption, because alcohol in high doses can cause erectile dysfunction, reduce libido and affect the quality of sperm.

## Quit smoking – for everyone's benefit

Cigarette smoke contains thousands of harmful chemicals that cause damage to all parts of the body, including the sperm. Just like with obesity, smoking can cause genetic damage and epigenetic changes in sperm, and this can increase the risk of health problems in children born to fathers who smoke. There is no safe limit for smoking; the only way to protect yourself and your unborn baby from harm is to quit. But quitting can be difficult and you may need support. Speak to your doctor for advice and information about helpful resources.

## Keep your environment eco-friendly

As part of daily life, and in some work environments, we're exposed to many toxic substances and pollutants. Some of these can affect a man's sperm and his fertility and potentially his children's health and development. Environmental factors that are known to have a detrimental effect on reproductive health include pesticides, heavy metals, some chemicals, harmful plastics, radiation, recreational drugs and anabolic steroids. If your work requires use of toxic substances, take your Occupational Health and Safety guidelines seriously and protect yourself.

## Get a health check

For more advice and to make sure you're in the best health possible, see your GP for a health check at least three months before you start trying for a baby.

ARTICLE CONTRIBUTED BY:



**MORE INFORMATION**

[healthymale.org.au/mens-health/sperm-health](https://healthymale.org.au/mens-health/sperm-health)

[yourfertility.org.au](https://yourfertility.org.au)

Putting one foot in front of the other

# Living with Klinefelter syndrome

Forty one-year-old chef **Geoff Kruck** was diagnosed with Klinefelter syndrome (KS) in 2012. KS is a genetic condition that affects fertility, energy levels and bone and muscle strength. One in 550 boys and men have KS, yet it often goes undiagnosed. In October 2019, Geoff helped to raise awareness of the condition by participating in the Melbourne Marathon, with proceeds going to Healthy Male. He talks here about what it means for him to live with KS.



**I** found out the hard way I had Klinefelter syndrome. When I married my wife, I didn't have an overbearing desire to have children – I was just rapt to marry my best friend. I thought a family would come naturally down the track. You just assume it's going to happen for you when you're ready.

A couple of years passed, and I visited my father in far north Queensland. That made me appreciate anew what it means to experience a father's love. I have a very strong faith and I was able to

connect and reflect on that during that time. When I got back home, I felt ready. Soon after, my wife and I started trying for a child.

We tried for nineteen months with no success. It was very frustrating. My wife suggested we get some fertility tests done. Mine showed that I had no sperm. The test was repeated and I had the same result. They said there was a chance I might have Klinefelter syndrome. We had some more tests and the diagnosis was confirmed. We had to face the possibility that we might not be able to have children.

I had not heard of KS, but I've since learnt a lot more about it. As well as fertility, it can affect everything from cognitive function to energy levels to sex drive. Being diagnosed made some things fall into place – why I'm as tall as I am, why I've always carried more weight around my hips, waist and chest, and why I often feel tired.

After the diagnosis, I was referred to an endocrinologist. I then had a biopsy, where tissue was taken from each of the testes. This got sent away to see if they could harvest any healthy sperm from the tissue.

## Did you know?

KS is a genetic condition – men with KS are born with it

It's also known as 47 XXY – men affected have an extra X chromosome

KS stops a man's testes from producing sperm and testosterone

A key indicator of KS is small testicles (about the size of a grape) after puberty

**My wife suggested we get some fertility tests done. Mine showed that I had no sperm. The test was repeated and I had the same result ... We had to face the possibility that we might not be able to have children.**

The result showed that it wasn't possible. It was hard news for both my wife and I to take. We became each other's rock, and we somehow navigated our way through.

We received counselling, and there was still hope for us to become parents. One option was to try and conceive with donor sperm through IVF. I couldn't help thinking that none of my DNA would be passed onto the child. But my endocrinologist was fantastic; one thing he did tell me is that even if it's not your bloodline, you are there for the birth, you are raising the child as your own. It helped me to see things differently. Another option was adoption. We've had time to think on it and while we've decided not to go down either of those roads, it was good to know we had choices.

For couples going through this process my advice is to talk to others who are further along in their journey, as well as your specialists, and of course each other. Ask any questions that will help you make the decisions that are right for you. Take as much time as you need to get your thoughts in check. It's okay to feel the way you feel at any given time, including sadness and grief.

When I was diagnosed with KS, I didn't know anyone with the condition. Some of the KS information I got in those early days from social media and in chatrooms was not always helpful. I would hear things about people with KS having learning difficulties. And yet the guys I've since met with KS have turned out alright – they're working, they're successful. Many are creatives, often working in the food industry like me. You need to focus on your strengths and surround yourself with positive people. I have a strong faith, which also really helps.

I've since come across a US-based website called *Living with XXY* run by a bloke called Ryan Bregante. He put me in touch with a couple of Aussie guys with the syndrome, which has been a great help.

One of the treatments for KS is testosterone therapy. While it doesn't improve your fertility, and you don't have to have it, it's really given me a new lease of life. I have a lot more energy and I'm much more motivated to do things like exercise. It's helped with my sex drive and muscle development, and it's given me more confidence.

Information has got to come from the right sources. It's important to find a good endocrinologist – someone who is supportive and well-informed. More recently, Healthy Male has also been a great resource, particularly for medical and research information.

My wife got me thinking about being involved in the Melbourne Marathon – she's run more than a few of them in her time. I'm more of a swimmer than a runner, so participating was a personal challenge for me. With the KS, my joints don't always enjoy running. I think I will leave the running to my wife – I'll just be happy to walk it with my father-in-law!

Apart from raising money for Healthy Male, I want to raise awareness. For me, it's been a long road coming to grips with having KS, and sometimes it was a struggle. But it was also refreshing to know that there was an explanation for some of the symptoms I'd had my whole life. The more people that understand the condition, the less likely there is to be stigma around it. Some great people have helped me along the way. I'm ready now to give back to help other guys who are going through it.

MORE INFORMATION

[healthymale.org.au/mens-health/klinefelter-syndrome](https://healthymale.org.au/mens-health/klinefelter-syndrome)

[livingwithxxy.com](https://livingwithxxy.com)

# The road to fatherhood

**The path to fatherhood can be a short and smooth one, or it can be a long and windy journey with bumps along the way. Whatever's in store for you and your partner, the most important things to remember are: stay healthy, stay positive and stay informed.**

## At least 3 months before trying

### Get healthier, together.

To have the best chance of a healthy pregnancy, both parents need to be in best possible shape before trying to conceive. Many factors affect the quality of a man's sperm and the chance of having a healthy baby.

**It takes around three months for new sperm to fully develop, so healthy habits should begin at least three months before trying to have a baby.**

- If you're concerned about your weight, talk to your doctor about your options
- If you smoke, quit!
- Stay away from recreational drugs, like marijuana and steroids
- Limit your alcohol intake
- A healthy diet and regular exercise set you on a path for a healthy weight
- Avoid exposure to harmful chemicals at work and in your home
- If you have a medical condition, talk to your doctor to make sure it's under control
- Discuss any medications you take, both prescription and over-the-counter, with your doctor

Make an appointment to see your doctor for a health check before trying for pregnancy.

👉 *Want to know more? Go to [yourfertility.org.au](http://yourfertility.org.au) for the most current information about what you can do to improve your chances of having a baby.*

## 4+ months

**A woman can't get pregnant at any time – timing is key!**

**The 'fertile window' in the menstrual cycle is the five days leading up to, and the day of, ovulation when an egg is released from the ovary.**

Ovulation happens approximately 14 days before a woman's period starts. If she has 28 day cycles, days 12, 13 and 14 are the most fertile. It's a good idea for both men and women to keep track of dates — this is just the beginning of shared responsibilities!

👉 *Need more info on ovulation? Check out the 'Timing' page and ovulation calculator on [yourfertility.org.au](http://yourfertility.org.au).*

## 12 (or more) months

**It's time to make a doctor's appointment — for both of you.**

If you and your partner have been trying for 12 months or more without success, it's time to see your doctor.

If the female partner is over 35, consider getting help after trying for six months. If you have a history of testicular cancer or other specific health problems, you may want to see your doctor earlier to save time down the track.

## 12 (or less) months

**A lot can happen in a year.**

Getting pregnant doesn't always happen straight away. Only two-thirds of all couples conceive within three months of trying. Most couples conceive within 12 months, so if you've been trying for less than 12 months, keep trying.

### Conversations, examinations and testing.

Your doctor will take a detailed medical history and perform a physical examination. They'll also refer you for a semen analysis.

If everything seems in order, your doctor may advise you to keep trying for a little longer.

### Semen analysis results — what happens next?

The semen analysis will check the number, movement and shape of the sperm in your ejaculate. If your test results indicate a problem with the sperm, your doctor will refer you to a male fertility specialist.

### Referral to a fertility specialist

If the problem is with your partner, your doctor will refer you and your partner to a fertility specialist to discuss potential treatment options.

### What are the options?

Once the cause of any fertility problems have been pinpointed, your doctor will discuss treatment options with you. These will vary depending on the cause.

For male fertility problems, where assisted reproductive treatments are required, the options are:

- Artificial insemination of the male partner's semen into the female partner's uterus at or just before the time of ovulation (intrauterine insemination)
- Directly injecting a single sperm into each egg to achieve fertilisation (Intracytoplasmic sperm injection (ICSI))
- Donor sperm (donor insemination)

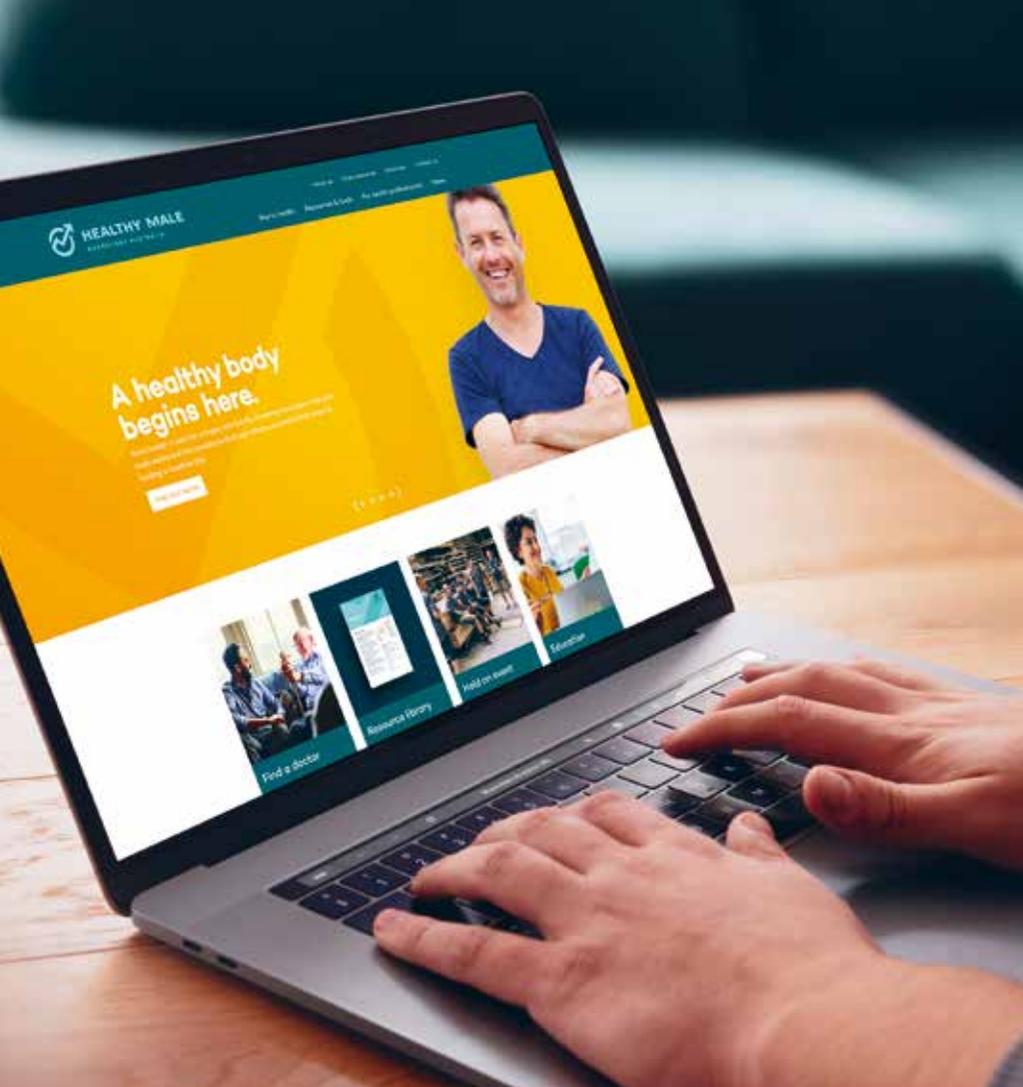
➤ **Learn more about assisted reproductive treatment options at [varta.org.au](http://varta.org.au).**

### Problems with fertility — they happen, but there may be help.

Most people take their fertility for granted and do not expect to have problems conceiving.

**However, one in nine couples experience fertility difficulties.**

Some people find it helpful to discuss their feelings with a psychologist or counsellor. Others feel better if they take action by starting treatment.



# Healthy Male resources

## Expert and accessible info

Did you know that the Healthy Male website is home to a wide range of information resources? We've used our extensive knowledge in male health to develop evidence-based, easy-to-understand resources, from comprehensive information guides to health event and in-clinic brochures.

**Visit our website to find the right resources for you, your partner, friends and family, or local health service.**

**All of our resources are available at no cost and postage is free within Australia.**

### RESOURCE LIBRARY:

[healthymale.org.au/resource-library](https://healthymale.org.au/resource-library)

### ORDER RESOURCES:

[healthymale.org.au/order-resources](https://healthymale.org.au/order-resources)

# Resources for health professionals

## Information for, and from, the experts

We produce a range of evidence-based resources for the health professional community, from clinical summary guides to printable patient assessment tools.

You can download these resources or order hard copy clinical summary guides, as well as patient information guides, free of charge through our online store.

### Clinical summary guides

We offer a series of 13 clinical summary guides on the management of male reproductive and sexual health to assist professionals in the management of their male patients. The clinical summary guides cover topics such as:

- Male genital examination
- Androgen deficiency
- Male infertility
- Testicular cancer
- Prostate disease
- Ejaculatory disorders
- Erectile dysfunction
- Klinefelter syndrome
- Engaging men in primary care settings.

### Assessment tools

Our four patient assessment tools aim to support health professionals when providing advice and assessing male patients with reproductive and sexual health issues. These include:

- An evidence-based screening tool for premature ejaculation
- An assessment that addresses male-factor infertility issues
- A screening tool for benign prostatic hyperplasia (BPH)
- A sexual health inventory tool to evaluate the severity of erectile dysfunction.

### Orchidometers – easy to use and essential for diagnosis

Accurately determining testicle volume is crucial when it comes to diagnosing and monitoring certain conditions, such as low testosterone and Klinefelter syndrome.

The Healthy Male orchidometers provide health professionals with a quick and reliable method of measuring testis size and feature a series of 15 beads ranging from 1 to 35mls.

Our orchidometers are available to purchase for \$154 (incl. GST) + shipping.

GPs who complete all case studies in one active learning module through our GP education will receive a complimentary orchidometer.

#### MORE INFORMATION ON HEALTH PROFESSIONAL RESOURCES AND EDUCATION:

[healthymale.org.au/health-professionals](http://healthymale.org.au/health-professionals)

## RESEARCH REVIEW

# What do Australian GPs really think about providing fertility and preconception health advice to men?

**A man's age and modifiable lifestyle factors can influence pregnancy outcomes and offspring health, including obesity, alcohol, smoking and diet. However, men do not have adequate knowledge of how age and lifestyle factors can influence pregnancy outcomes, and there is little knowledge of whether and how primary health care practitioners promote preconception advice to men. A study by researchers at Healthy Male has revealed the barriers and enablers to fertility and preconception health promotion to men, and the need for better education and training of general practitioners and for the provision of patient guides and online resources.**

It is well-recognised that effective strategies are required to modify health behaviours of both men and women to optimise pregnancy outcomes. Both men and women believe that health practitioners, including GPs, should provide advice and resources on fertility and pregnancy. Yet preconception health care is primarily focussed on women, and is not widely practised for men in Australian primary health care. Studies show that men do not have adequate knowledge about the effect of age and lifestyle factors on their fertility, or the potential consequences for the health of their children.

Health practitioners, including GPs, have an important role to play in providing advice on preconception health and fertility to men. In order to find ways to improve the delivery of preconception advice to men, researchers at Healthy

Male investigated GPs' knowledge, attitudes and behaviours towards men's preconception health and fertility health promotion.

The study aimed to identify the gaps in GP's knowledge about male fertility and to assess their views on the barriers and enablers for delivering advice to men on their fertility and preconception health. An online survey was open to all GPs, and a total of 304 GPs completed the survey.

## THE MAIN FINDINGS AND RECOMMENDATIONS WERE:

**1** Most GPs felt it is part of their role to deliver fertility health information to men, yet very few routinely raise the subject with men. Only 50 per cent of the GPs surveyed said that the subject opportunistically when consulted about a reproductive issue or advice

- 2** Almost two-thirds of GPs agreed it was their role to discuss modifiable risk factors affecting fertility yet most stated they did so only "occasionally" or "never"
- 3** Almost all GPs (90%) did not feel confident in their knowledge of risk factors affecting a man's fertility. Knowledge gaps identified included factors that affect reproductive outcomes, such as obesity and older paternal age
- 4** A range of barriers to discussing fertility and preconception health were identified, including lack of knowledge, difficulty in bringing up the subject unless specifically asked, men's discomfort or disinterest in discussing the subject, and the fact that younger men rarely visit a GP
- 5** Most GPs responded that a potentially useful approach to initiating fertility and preconception health conversations with men could be based on the "One Key Question" approach, where patients are asked whether they would like to become pregnant in the next year
- 6** The vast majority of GPs stated that better information and education would make them more confident to talk to patients about fertility. The types of information that GPs believed would help included patient factsheets and trustworthy websites to refer patients to
- 7** The authors recommended that a national framework for preconception health care and promotion should include male-specific reproductive health resources and further GP education and training. This would help GPs to promote awareness of fertility and preconception health to men.

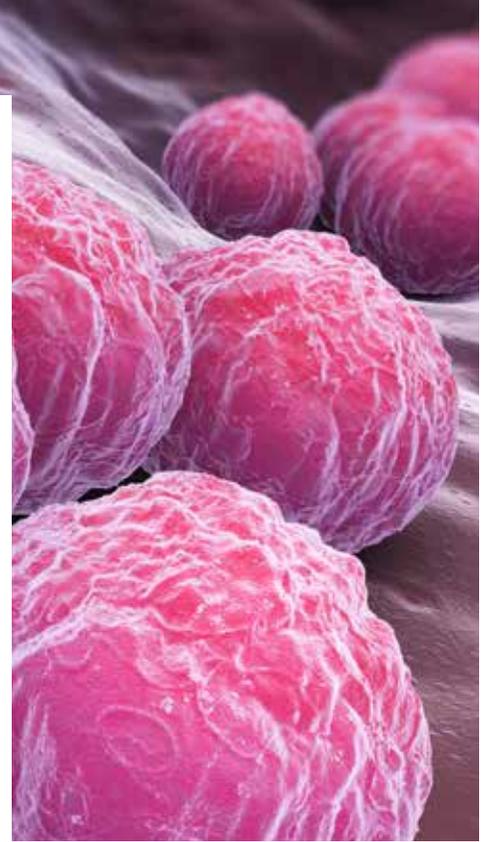
## CITATION

Hogg K, Rizio T, Manocha R, McLachlan RI, Hammarberg K. 2019 Men's preconception health care in Australian general practice: GPs' knowledge, attitudes and behaviours. Australian Journal of Primary Health 25(4) 353-358

## RESEARCH REVIEW

# High rates of active chlamydia infection in the testes of infertile men

***Chlamydia trachomatis* (*C. trachomatis*) infections are diagnosed in more than 120 million people per year globally, yet millions more of the infections produce no symptoms and remain undetected. Chlamydial infection has been associated with infertility in women, but much less is known about its impact on male fertility. A new study has shown an unexpectedly high rate of active *C. trachomatis* infection in testis biopsies from infertile men, suggesting it may be associated with the impairment of sperm production.**



Male infertility accounts for approximately 40 per cent of all human infertility, but in most men the cause remains undiagnosed. In women, chlamydia is a known causal factor for infertility but whether *C. trachomatis* infection can impair fertility in men is not known. Infectious diseases such as mumps play a role in spermatogenic dysfunction, and bacteria in semen, including *C. trachomatis*, are associated with abnormal sperm parameters. However, semen analyses in men with fertility problems do not reveal any consistent indicators associated with chlamydial infection. Studies in mice showed chlamydia infection impairs testis health, sperm production and function, raising the question of whether *C. trachomatis* infection could contribute to infertility in men. At least half of all men infected with chlamydia are likely to remain undiagnosed and therefore it is important to understand whether asymptomatic *C. trachomatis* could contribute to male fertility.

To address possible links between chlamydia infection and male infertility, clinical lead Professor Rob McLachlan AM, Healthy Male Medical Director, collected testis biopsies from more than 100 men with the one of the most severe forms of infertility: zero sperm count, or azoospermia. The investigators used various techniques to detect *C. trachomatis* infection in the biopsies and, in some men, evidence of infection in the blood and urine was also assessed.

## THE MAIN FINDINGS FROM THE STUDY WERE:

- The detection of testicular *C. trachomatis* infection in the testes of asymptomatic infertile men is a clinically significant finding
- Unexpectedly high rates of *C. trachomatis* infection (up to 54%) were detected in testis biopsies from men with zero sperm counts, and infections were observed in all histological subtypes of infertility
- Testis biopsies could be positive for *C. trachomatis* despite a negative urine test
- Causality between infection and infertility could not be determined in the small number of patients; larger studies are needed to determine whether chlamydia is a potentially preventable cause of human male infertility
- If chlamydia is proven to damage human testes, then screening and therapeutic approaches for the clinic will be needed to inform clinicians and potentially improve reproductive outcomes.

## CITATION

Bryan ER, McLachlan RI, Rombauts L, Katz DJ, Yazdani A, Bogoevski K, Chang C, Giles ML, Carey AJ, Armitage CW, Trim LK, McLaughlin EA, Beagley KW 2019 Detection of chlamydia infection within human testicular biopsies. Hum Reprod 34: 1891-1898



# How to talk to men about fertility

**How often do you talk to your male patients about their fertility? In a recent study, two thirds of GPs agreed that it was their role to discuss fertility with male patients, but nearly 80% practiced this only occasionally<sup>1</sup>, despite men contributing to around 50% of all fertility issues<sup>2</sup>. Paired with the fact that men visit the doctor less often than women and have shorter consultations, opportunities to talk about sexual and reproductive health are often missed.**

There's an opportunity for GPs to take the lead on these conversations when patients come in for a consultation, even with the challenge of time constraints.

Discussing sensitive issues around sexual function or reproductive health is a shared responsibility, but male patients can be negatively impacted by:

- the nature of the relationship with the doctor (e.g. talking to a new doctor),
- stereotyping around men's health concerns and needs (e.g. older men are less likely to want to talk about sexual issues), and
- embarrassment around discussing sexual health.

## Strategies GPs can employ

So how do we normalise these discussions? There is a range of strategies that GPs and health professionals can employ to get men talking about their health. These include:

### CREATING MALE-FRIENDLY ENVIRONMENTS AND RESOURCES

Showcasing men's health information in health practices can be an easy way to inform men, whether it be through wall posters or brochures. It's also useful to address the challenges that men face in making appointments by offering evening or weekend consultations.

Providing men with printed or digital material — like fact sheets or website links — that they can read and absorb in their own time can also help with engagement and education.

### GETTING TO THE POINT

A frank and straightforward approach is not only welcomed by patients, but it also minimises misunderstandings. It's important to deal with men's health concerns comprehensively and quickly, and to immediately refer them onto a specialist (if required) — especially if a health issue remains unresolved.

### ASKING THE RIGHT QUESTIONS

It's a good idea to raise sexual health and fertility questions during most appointments and making this as comfortable as possible.

A lead-in sentence can be broad, such as 'Are there any issues you want to talk about?' or 'How are things going with your sex life?'

Questions can also be more specifically linked to a physical condition — 'It's common for men with diabetes to experience erectile problems. I can help you if that's the case.'

### SHOWING EMPATHY AND CREATING A RELAXED ENVIRONMENT

It's essential to listen carefully to what your patients are communicating, as this highlights their knowledge gaps and gives you cues around their concerns.

Humour can be employed thoughtfully to build rapport, alleviate concerns, and keep the dialogue open. It's less about sharing a joke, and more about creating a laidback approach when talking about fertility and health.

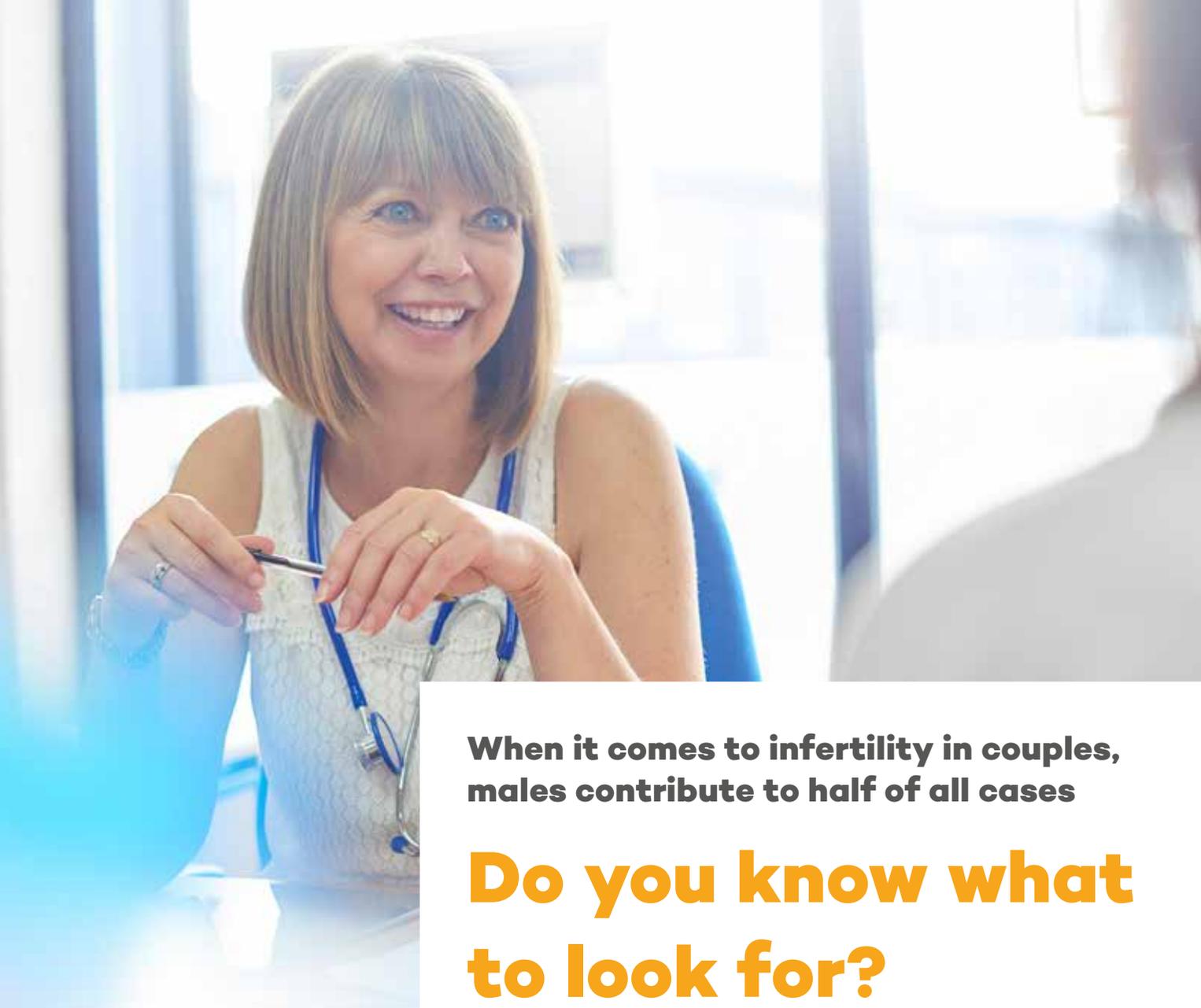
### BUILDING TRUST THROUGH KNOWLEDGE

Stating facts clearly and using easy-to-understand terminology is important when talking to men and boys of all ages. Keeping on top of new research and the latest developments, and demonstrating this knowledge to patients, can help to build trust too.

**Healthy Male offers a range of patient resources, as well as clinical resources, research reviews, and professional education for medical professionals. We recommend starting at the 'Resources and tools' or 'For health professionals' sections of our website.**

<sup>1</sup> Kirsten Hogg A H, Taletha Rizio A, Ramesh Manocha B, Robert I. et al. Men's preconception health care in Australian general practice: GPs' knowledge, attitudes and behaviours.

<sup>2</sup> Daumler D, Ch P, Lo KC, Takefman J, Zelkowitz P. Men's knowledge of their own fertility: a population-based survey examining the awareness of factors that are associated with male infertility. Human Reproduction 2016



**When it comes to infertility in couples, males contribute to half of all cases**

## **Do you know what to look for?**

With men contributing to half of all cases of infertility in couples, and low sperm counts being seen in around 1 in 20 men, GPs and other health professionals have an important role to play in the assessment of male fertility. The following guide provides an overview for health professionals to ensure vital information on men presenting with potential fertility problems is gathered during consultation.

### **Assessment**

The initial assessment of the couple should include age, fertility history, contraceptive use and when it was ceased, regularity of intercourse

during fertile times, and lifestyle factors for both partners, including diet, exercise, alcohol and smoking.

A comprehensive assessment<sup>1</sup> of a man's reproductive history should include whether he has previously fathered children and if there are psychosocial issues that could interfere with conception (such as erectile or ejaculatory dysfunction<sup>2</sup>). It is important to investigate a history of undescended testes and abnormal pubertal development, as well as other factors that could impact on fertility including previous surgery to the genital, inguinal or pelvic region, previous infection

such as STIs or mumps, and previous genital trauma. Patients should also be assessed for medication and drug use that could impair sperm production, and for their general health (e.g. diet, exercise and smoking) that could impact on sperm health and epigenetics. The patient should also be assessed for symptoms of androgen deficiency<sup>3</sup>.

A physical examination should include a general examination to assess acute/chronic illness and nutritional status, degree of virilisation, prostate examination (if history suggests prostatitis<sup>4</sup> or STI) and genital examination<sup>5</sup>.

## Investigations

Semen analysis is the primary investigation for male infertility. Men should be advised to abstain from any sexual activity for 2-5 days prior to providing a semen sample. Semen analysis should be performed twice, six weeks apart, and if the first test shows a poor assessment, the second test should be analysed in a specialist laboratory. Normal ranges for semen analysis are: volume  $\geq$  1.5mL, pH  $\geq$  7.2, sperm concentration  $\geq$  15 million spermatozoa/mL, motility  $\geq$  40% motile sperm within 60 minutes of ejaculation, vitality  $\geq$  58%, white blood cells  $<$  1 million/mL, sperm antibodies  $<$ 50% motile sperm with binding.

### *Serum total testosterone:*

The normal reference range may vary between laboratories; an approximate range is 8-27nmol/L. Many men with normal testosterone can still have significant spermatogenic defects. Serum total testosterone should be interpreted along with serum LH levels. Some men with severe testicular problems present with low testosterone and elevated FSH and should undergo evaluation for androgen deficiency<sup>3</sup>. Low serum testosterone and low LH suggests a hypothalamic-pituitary problem.

*Serum FSH:* In normal men, the upper reference value is approximately 8 IU/L. Elevated levels are seen during primary testicular failure. In a man with azoospermia (zero sperm count)  $>$  14IU/L strongly suggests spermatogenic failure. Low FSH ( $<$  5IU/L) is suggestive of obstructive azoospermia, but a testis biopsy may be required to confirm.

## Management

### TREATMENT

For the majority of men/couples with defined infertility, referral for assisted reproductive technology including IVF, will be required.

Options for improving natural fertility exist only in a minority of infertile men. These include the withdrawal of drugs that could interfere with fertility, or treatments for men with hyperprolactinemia, hormonal deficiency, genitourinary infection and erectile and psychosexual problems. The need for varicocele removal to improve fertility shows limited evidence, but may have a place in selected cases. Selected patients should be counselled for protecting and preserving fertility, for example safe sex practices, mumps vaccination and the need for sperm cryopreservation.

**WARNING:** Testosterone replacement therapy should never be initiated in an androgen-deficient man seeking fertility, as testosterone therapy exerts a potent contraceptive effect by suppressing pituitary gonadotrophins and sperm production.

### SPECIALIST REFERRAL

Couples can be referred immediately or after baseline tests have been performed. Specialist referral depends on the problem: fertility specialist/ART clinic for couples experiencing infertility; urologist for male patients requiring surgery such as undescended testes; endocrinologist for endocrine-associated problems.

### LONG TERM MANAGEMENT

Long term management of the infertile male should include assessment for testis cancer and late-onset androgen deficiency. Management of the couple involves supporting each patient during their infertility experience, in particular acknowledging both partner's experience of infertility, providing empathetic counselling to normalise feelings of grief and loss, and referral to a psychologist or counsellor where appropriate.

## FOOTNOTES AND KEY RESOURCES:

Footnotes refer to specific clinical summary guides on the management of male reproductive health which are available to download from our online Resource Library. Alternatively, order a free hard copy via our online store. For more information, visit [healthymale.org.au](http://healthymale.org.au).

- 1 Healthy Male Clinical Summary Guide – Male Infertility
- 2 Healthy Male Clinical Summary Guide – Ejaculatory Disorders and Erectile Dysfunction
- 3 Healthy Male Clinical Summary Guide – Androgen Deficiency
- 4 Healthy Male Clinical Summary Guide – Prostate Disease
- 5 Healthy Male Clinical Summary Guide – Step-By-Step: Male Genital Examination and Male Adulthood Genital Examination

Also available for clinical use is our **male fertility assessment form**, endorsed by The Fertility Society of Australia, which you can download and print from our website. Find it here:

- [healthymale.org.au/health-professionals/clinical-resources/patient-assessment-tools](http://healthymale.org.au/health-professionals/clinical-resources/patient-assessment-tools).

# HYMTECH2020

## Communicating Healthcare for Young Men Through Digital Technology

14-16 June 2020

There are 2.6 million men aged 15 to 29 living in Australia. These young men are incredibly tech-savvy; they use multiple devices and spend hours online, but it's hard to grab their attention even there.

So how, as health professionals, do we engage with these tech natives about their health?

We'll be exploring the answer to this question at the inaugural HYMTech Conference – Communicating Healthcare for Young Men Through Digital Technology. We'll look at how to best use language, platforms and data to motivate young men to change their health behaviours.

### WHY HYMTECH?

Most young men have a carefree attitude to their health, which makes engaging with them a challenge.

The ever-evolving digital media landscape is their preferred channel of communication, replacing the more traditional methods. And the maturation of digital marketing, such as social media campaigns, has led to new initiatives that reach and influence young men – they're just not usually focussed on health.

HYMTech is a multidisciplinary conference that's bringing key stakeholders together to address issues surrounding young men and healthcare, and to seek effective, measurable solutions.

An international committee of experts, community advocates, policymakers and business leaders will present a program across three days, covering:

- 1 Language** how to best communicate with young men
- 2 Case studies** what has and hasn't worked to date
- 3 Digital tools** where to find them and how to use them
- 4 Data** how to analyse it and use it in meaningful ways.

This is the first time that health professionals will come together for a sustained conference program that is dedicated to communicating health messages for young males through digital mediums.

### TO REGISTER, VISIT

[hymtech.org/registration](http://hymtech.org/registration)



### PRESENTED BY





# Plus Paternal

A focus on fathers

When couples begin to plan for a child, it's time to focus attention on everyone's health. While the health system concentrates on mothers and babies, opportunities to include men and their health needs are often overlooked.

There are good reasons for men to consider their own health and lifestyle choices if they're having children:

- Men's health can affect their chances of becoming fathers and the time it takes to conceive
- Men's health before conception can affect the future health of their children
- Many new fathers experience psychological distress which can affect their parenting, engagement with their children and their relationships.

But how well does the health system cater for men's health needs at this time? And what can be done to improve men's involvement?

Healthy Male's Plus Paternal Project is hoping to answer these questions and many more as it examines the man's journey to fatherhood. We will look at how best to engage and support men from pre-conception to early fatherhood and identify what needs to change to create more 'father-friendly' environments and care.

Prof. Rob McLachlan, Healthy Male's Medical Director, believes men need to be having conversations with their health professionals about reproductive health long before they start trying to have children.

*"I always encourage prospective fathers to consider their own health, just as much as their partner's. We know that a man's health in the months leading up to conception affects their child's health later in life — so the advice I always give is: stop smoking, commit to achieving a healthy weight, and to being the healthiest you can. This is something a man's local doctor may be able to help him with. Because it's important for men to make the best sperm and the healthiest children they can."*

During the first stage of the Plus Paternal Project we will examine the current situation across Australia in relation to men's involvement with reproductive health services. Stage two will be about creating change and better engaging fathers and prospective fathers in the health system.

Healthy Male cannot do this work alone. Our intention is to work with the many organisations and programs that support families to increase the focus on paternal health nationally.

## Have your say

— Take part in our online survey

### MEN'S LIVED-EXPERIENCE SURVEY

This survey is for men who have fathered or tried to father a child in the last five years. The questions will ask about men's experiences of the health system on their journeys to fatherhood.

### HEALTH PROFESSIONAL SURVEY

This survey is for health professionals from general practice, fertility support, midwifery, obstetrics and gynaecology services. The questions will explore current practice, systems and processes for engaging men, and the barriers and enablers to creating a truly father-inclusive health system.

Access the survey at

➤ [healthymale.org.au/plus-paternal](https://healthymale.org.au/plus-paternal)

WANT MORE INFORMATION?

✉ [info@healthymale.org.au](mailto:info@healthymale.org.au)

➤ [healthymale.org.au/plus-paternal](https://healthymale.org.au/plus-paternal)

# A different view

**We asked four people working in health: how does the health system need to change to better support the needs of fathers and potential fathers?**

For many couples in Australia there is little opportunity to prepare for pregnancy. And while we can't plan for everything, there are some things we, as health providers, can do to make this major transition into parenthood easier.

Our focus is almost exclusively with the mother, and while men are increasingly attending antenatal appointments and parenting classes, there is a gap in the care we provide in general practice. More information needs to be provided to *both* parents about the journey in front of them — what it may be like, what changes it will make to their lives and how their relationship will change, not only with their partner but with their friends, work colleagues and family. Men especially need more education around leave entitlements and where support can be found for their family.



**Helen Storer**

**Practice Manager, Primary Health Care Practice Nurse**

There is considerable social change around the roles of men and these changes need to be reflected in the way we work in the health system. We need to do more than see men as supports for their partners during pregnancy and the early years of their children's lives. Not only do men have particular health needs associated with pregnancy and fatherhood, they also have a great contribution to make to the health of their partners and children.

If we are to strengthen men's contribution to their families' health, we need to change the delivery of health services and we need a workforce that is skilled in working directly with men as fathers.



**Prof Bernie Marshall**

**Professorial Fellow – Portfolio of the Deputy Vice-Chancellor (Education)**

I often see fathers and fathers-to-be who don't feel valued as an important part of the pregnancy. Whenever the consultation may be the conversation is almost always centred around the mother's role and her needs. And while this is vitally important, it's rare for there to be discussion about the importance of a father's role or his health and wellbeing.

It's not widely known that one in 10 men experience depression following the birth of their child.

The health system needs to raise awareness, with both health professionals and men, about the significance of a father's role in preconception health, pregnancy, and the postnatal period.



**Dr Gaurang Prajapati**

**GP**

Evidence suggests that the health of men has a strong influence on the health and wellbeing of their partners and children. However, many men, remain reluctant to utilise health services because of the numerous barriers and accessibility issues they may face. A lack of dedicated male health resources, clinics that are not 'male friendly', and the perception of some health conditions being seen as a weakness are all hurdles that the health system must overcome.

The health system needs to be more responsive and proactive in its efforts to align with the needs of men. When it comes to the health of the entire family, the case for change is a strong one: greater understanding of male preconception health and fertility, and better support during pregnancy, pregnancy loss and early fatherhood will lead to better health outcomes for men, their partners and children.



**Dell Lovett**

**Primary Health Care Nurse,  
Maternal and Child Health Nurse**





**HEALTHY MALE**  
ANDROLOGY AUSTRALIA