



The Healthy Male

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Australian Centre of Excellence in Male Reproductive Health

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Looking back on Men's Health in 2018

The excitement of a new year is approaching and at Andrology Australia, we are looking forward to the opportunities and breakthroughs for improving men's health in 2019.

With the announcement of the new National Men's Health Strategy by the Federal Government, the second half of 2018 has been busy for Andrology Australia as we have been closely involved with development of the new Strategy in collaboration with key stakeholders in men's health. A roundtable forum was held in Canberra in August attended by experts selected by the Minister for Health, and a public consultation invited the Australian public to provide feedback on the content and direction of the draft Strategy in October. Through submissions provided by different organisations and individuals it is clear that there is a positive and determined national drive for improving men's health outcomes in Australia.

This November the 2018 Men's Health Gathering was held in Parramatta NSW, combining the 12th National Men's Health Conference and the 9th National

Aboriginal & Torres Strait Islander Male Health Convention. This year's theme was "*Working Together to Improve Male Health and Wellbeing*".

In 2018, Andrology Australia had the opportunity to attend and present at over 17 conferences and conventions nationally. These professional events connected with an array of general practitioners, nurses, urologists, specialists, allied health professionals, primary health networks and health promotion organisations passionate about improving men's health in Australia.

As we look to 2019, we are excited to share with you that Andrology Australia will be undertaking a comprehensive rebranding, including a new name within the community sector. A new website will be launched early in the year allowing for easier navigation to our men's reproductive and sexual health resources to read, download, order and watch. We will also be unveiling new content on men's health topics for patients and health professionals to access. Be sure to keep an eye out for updates next year!



IN THIS year's final edition of The Healthy Male, we take a moment to reflect on our activities over the past 12 months, which shaped up to be a busy year for Andrology Australia.

I am very pleased to see that the momentum in the men's health arena continues to pick up pace. Together with input from experts in multiple aspects of men's health and wellbeing, and across each State and Territory, we have worked with the Commonwealth Department of Health to build on the current National Male Health Policy. The forthcoming Strategy will be presented early in 2019 and will outline a raft of Actions intended to address inequities in access to and delivery of men's health care over the next decade.

In this edition, our Focus On section examines the common problem of enlarged breast tissue growth in men, known medically as gynaecomastia. This condition, which can cause embarrassment and sometimes anxiety, can occur in any man, but is usually treatable. If you think

you suffer from gynaecomastia your doctor may be able to help! Our latest Health Spot article talks about the impact of diabetes on male fertility and sexual health and raises new findings that suggest that having pre-diabetes may also be damaging to sperm health. This latest research reinforces how important it is to look after your health before trying for a baby.

In 2018, we have re-established our full team under the direction of our new CEO Simon von Saldern and can now tackle new challenges with confidence. So now, on behalf of Andrology Australia, I wish you all a very happy holiday season and a healthy and happy New Year.

See you in 2019!

Professor Rob McLachlan AM

Health spot – High blood sugar and male fertility

IN HEALTHY people, the pancreas (a small gland in the body) releases the hormone insulin to control blood sugar levels after eating a meal. When blood sugar levels are not properly controlled and become too high this is called 'hyperglycaemia'. High blood sugar levels are linked to an unhealthy lifestyle, particularly being overweight, having a poor diet and a lack of exercise. Our genetics also play a major role. When hyperglycaemia reaches a certain level and persists, the condition becomes type 2 diabetes.

What is type 2 diabetes?

Type 2 diabetes happens when the pancreas can no longer produce enough insulin to control blood sugar levels, or the body becomes resistant to insulin so it stops working. Diabetes can cause many serious health conditions if not properly managed.

What is pre-diabetes?

Pre-diabetes is a condition where the body can't properly process sugars. In pre-diabetes blood sugar levels are higher than normal but not high enough to be called type

2 diabetes and is sometimes called 'impaired glucose tolerance'. Pre-diabetes, which can occur without any symptoms, increases the risk of developing type 2 diabetes and heart disease. Lifestyle factors and/or having a family history of diabetes are usually the cause of pre-diabetes.

How does diabetes affect male sexual and reproductive health?

Diabetes can damage blood vessels and nerves, and increase risk of infection, especially when not well controlled. As a result, diabetes is associated with a range of sexual problems including erectile dysfunction, decreased sex drive (libido), ejaculation problems and inflammation of the foreskin (balanitis).

Can diabetes affect male fertility?

The rate of pre-diabetes and diabetes is increasing among young people so any harmful effect on fertility is a huge health concern. It is already known that high blood sugars in diabetic men may lower fertility.^[1]

A recent study of men attending a fertility clinic also found that men

suspected of pre-diabetes (abnormally high blood sugars) had higher levels of damage to sperm DNA, were more likely to have unexplained azoospermia (no sperm in the ejaculate) and had lower testosterone levels and more disruption of other fertility hormones, compared to men attending the clinic without clinical signs of pre-diabetes.^[2]

More studies are needed to understand if prediabetes affects male fertility in the general population and not just for those who may already have lower fertility. The importance of looking after your health before trying for a baby and making positive lifestyle changes such as eating healthily and getting more exercise should be high on the agenda.

Focus on:

Enlarged breast tissue in men - causes and treatments

Gynaecomastia is the medical term for the enlargement of male breast gland tissue. Gynaecomastia is very common in adolescent boys around puberty as the tissue inside the breast is affected by hormonal changes, but it can develop in men of any age or weight. Unfortunately, gynaecomastia can cause significant psychological and social stress, leading to anxiety and embarrassment.

What is gynaecomastia?

Gynaecomastia can appear as a rubbery or firm mass that starts from underneath the nipple and then spreads outwards over the breast area. It is benign, meaning that it is **not cancerous**.

It usually affects both breasts but often in different amounts so there is unequal growth, or it may only affect one breast. Sometimes the growing tissue can be painful or tender - if this occurs then it is important that you are examined by a doctor.

How common is gynaecomastia?

Gynaecomastia is very common. During puberty more than half of all healthy boys will develop gynaecomastia, with the enlarged breast tissue usually reducing in size with time. During older age about one-third of men will develop gynaecomastia.

What causes gynaecomastia?

The main male sex hormone is testosterone, but the sex hormone oestrogen is also present at lower levels in all healthy males. The balance or 'ratio' of oestrogen to testosterone is important for normal male development. When there is **more** oestrogen or **less** testosterone in the body, this changes the balance leading to an increased oestrogen to testosterone ratio.

Since oestrogen encourages breast tissue growth, this altered sex hormone ratio can cause gynaecomastia.

There are many different causes of gynaecomastia; these can be grouped into **physiological** (the body's normal functioning), **pharmacological** (medication or drug related), and **pathological** (disease) causes.

What genetic problems cause gynaecomastia?

Genetic causes of gynaecomastia are overall quite rare; however, the commonest genetic cause is a condition called Klinefelter's syndrome (KS)¹, which affects about one in every 550 males. Males usually have one X and one Y chromosome. In Klinefelter's syndrome males have an extra X chromosome (XXY), which can lead to gynaecomastia in about 50% of KS men.

Physiological gynaecomastia is caused by the normal hormone changes that occur during different stages of life, and include:

- During pregnancy male babies can develop physiological gynaecomastia due to the transfer of oestrogen from the mother. This transfer stops after birth, so the gynaecomastia is temporary.
- During puberty the maturing testes produce more oestrogen than testosterone, which can result in gynaecomastia. Usually this type of gynaecomastia goes away spontaneously, but sometimes it can persist longer term.
- During older age there is a gradual reduction in testosterone production, resulting in an increased oestrogen to testosterone ratio, which can encourage the growth of breast tissue.

Pharmacological gynaecomastia is caused by medications or drugs that affect the ratio of oestrogen to testosterone, and include:

- medications for depression, heart problems, high blood pressure, and stomach ulcers
- some antibiotics
- chemotherapy drugs, and prostate cancer drugs
- other drugs including androgenic steroids, marijuana, opioids and excessive alcohol.

While stopping the medication or drug will usually result in the gynaecomastia going away, always consult your doctor before discontinuing any medicines.

Pathological gynaecomastia is caused by different diseases or conditions that affect the ratio of oestrogen to testosterone. These conditions are quite rare but may include:

- genetic problems
- chronic diseases (especially kidney and liver disease)
- tumours in the testis or adrenal gland.

When is it not gynaecomastia?

An accumulation of excess fat, and not breast gland tissue, is sometimes seen in obese men - this is not true gynaecomastia and is sometimes called *pseudogynaecomastia*.

How is gynaecomastia diagnosed?

Gynaecomastia is diagnosed by a doctor taking your medical history and doing a physical examination. The medical history may involve your doctor asking questions about your breast tissue development, the types of medicines or drugs you are taking now or in the past, and what health conditions run in your family. The physical examination may include assessment of your breast tissue, abdominal (middle) area, and genitals.



Determining the cause of gynaecomastia may require investigations such as blood tests, imaging, and tissue samples. Blood tests may include oestrogen and testosterone hormone levels, testicular cancer markers and tests for abnormal kidney or liver function. Imaging can include testicular ultrasound to look for testicular lumps, or breast imaging (e.g. mammogram, ultrasound, or MRI) to look for breast lumps. If abnormal lumps in the testicles or breasts are found then a tissue sample (biopsy) may be recommended.

Is there a link between gynaecomastia and breast cancer?

Breast cancer is very uncommon in men, with around 100 Australian men diagnosed each year (less than 1% of all breast cancers). Breast cancer presents differently to gynaecomastia, usually being hard and irregular (rather than soft), usually in one breast (rather than usually in both breasts), and may also have nipple deformity or discharge, or lumps in the armpit.

There is a link between breast cancer and gynaecomastia in that both are associated with high oestrogen levels. Overall, men with gynaecomastia have around twice the chance of getting breast cancer, however it is still very uncommon. Men with Klinefelter's syndrome have an even higher risk of breast cancer than other men, however it is still rare.

What are the psychological effects of gynaecomastia?

For any man or boy, gynaecomastia can be difficult to cope with as it often causes significant psychological and social problems. Males may feel embarrassed or anxious about their chest, and may avoid activities that involve taking their shirt off, or avoid wearing certain clothes that emphasise the problem.

Increasing the awareness of gynaecomastia is important as it is a **common and normal part of puberty and aging**, and increasing awareness will help support the many males who experience psychological or emotional distress due to it.

How is gynaecomastia treated?

Gynaecomastia can be treated by conservative measures (observation), medications, or surgery. Which treatment

is appropriate depends on the underlying cause of the gynaecomastia, whether the changes are expected to resolve, and what cosmetic concerns are present.

Conservative treatment includes observation and careful watching. This is appropriate for many patients as most gynaecomastia goes away with time. If a specific cause of the gynaecomastia is identified and treated early on, then the breast enlargement may be stopped and reversed.

Medications may be used to treat gynaecomastia in males who have no underlying hormonal problems, although the success rates are variable. These medications aim to return the oestrogen to testosterone ratio to normal, and can include medications that suppress oestrogen such as Tamoxifen (also used in the treatment of breast cancer).

In androgen deficiency, treatment with testosterone therapy brings the abnormal oestrogen to testosterone ratio back to normal and may reduce the symptoms of gynaecomastia.

Surgery may be used in cases of long-standing gynaecomastia or when medications have not been effective. The excess breast tissue is removed either through a cut below the nipple, or by liposuction of the area, with both methods often used together. Compression garments are commonly used after the operation to help stop any fluid collection and reduce any stretched 'excess' skin. Severely stretched skin may also need to be removed.

¹For more information on Klinefelter's syndrome, please go to <https://andrologyaustralia.org/your-health/klinefelters-syndrome/>

Getting the best out of men's health communication



EARLIER THIS year Andrology Australia ran a nationwide survey reaching out to adult males of all ages and backgrounds to help us understand the best ways to communicate health messages to you. We asked how you go about accessing different health information, and your preferences for receiving information on your health. A huge 'thank you!' to the 497 males who responded to the survey; responses came in from each State and Territory around Australia.

In addition to the survey, we also ran a number of focus groups up and down

the country talking face-to-face with males aged from 19 to 91 years old about their views on looking for and receiving health communications. We wanted to know what works and what does not work for them!

Across all age groups, most males said that they looked for health information when they thought they may have a serious health problem, but fewer males sought information for what they perceived to be a minor problem. If they considered their problem private, they were even less likely to seek information. When males did look for

health information, the types of places they went to or stated they would prefer to go was slightly different depending on how old they were, their domestic situation, where they lived and their sexual orientation.

Andrology Australia will use these findings to share health messages with different groups of males in the places that they go and trust, using the methods they prefer. You can find a detailed report on the survey findings on our [website](#).

Research round-up

Genetic link to erectile dysfunction found

SCIENTISTS HAVE discovered that a tiny change or variation in the DNA code can alter the risk of developing erectile dysfunction later in life. Erectile dysfunction is common in older men, and is often linked to factors such as being overweight, having diabetes, high blood pressure and high cholesterol, living with depression or anxiety, or being a smoker. However, in some cases, an increased risk of erectile dysfunction may be passed on, or inherited, through our genes. Until recently, no single gene had been specifically found for a genetic link with erectile dysfunction.

A research study published in the journal PNAS has now shed some light on this mystery. The researchers closely examined the DNA of over 36,600 men in Northern California. By comparing DNA from men with or without erectile difficulties, they noticed that a small change in one unique area of the DNA code was more likely in men who had erectile dysfunction. When the study was repeated in over 222,000 men in the UK, the findings were the same, confirming the link between this specific DNA change and the risk of having erectile dysfunction.

This tiny variation in the DNA code occurred very close to a gene called SIM1, which is already known to have a role in regulating aspects of sexual function. This new discovery helps to understand why erectile dysfunction occurs in some men and could lead to new medicines to treat men for specific genetic causes of erectile dysfunction.



In brief

Andrology Australia staff update

We'd like to introduce and welcome Vanessa Jones, who joins the Andrology Australia team as our Health Promotion Manager. Vanessa comes to Andrology Australia with a broad background in the public health and community sector, and is passionate about engaging health and medical professionals to provide person-centred care. For the year ahead, Vanessa is looking forward to supporting and improving the public's access to quality evidence-based information and programs which support male reproductive and sexual health.

Christmas Closure

Over the Christmas and New Year period, the Andrology Australia office will be closed from Thursday 20th December 2018 and will re-open Monday 7th January 2019. Resource orders won't be processed throughout this time, however the online ordering system will remain available via the Andrology Australia website.

Newsletter for Health Professionals

If you are a health professional, sign up to our e-newsletter Male Briefs to keep up to date with the latest clinical news in men's health, research and professional events. Head to <https://andrologyaustralia.org/male-briefs/> to subscribe.

Latest News

Navigate study for low-risk prostate cancer patients is seeking participants

HAVE YOU or someone you know been recently diagnosed with low-risk prostate cancer? Low-risk prostate cancer often grows very slowly or not at all, yet men faced with this diagnosis report more difficulty making a treatment decision than any other cancer clinical group. This is largely due to the variety of management options including Active Surveillance (close monitoring) versus active treatment such as radiotherapy or surgery.

The Peter MacCallum Cancer Centre are seeking men with low-risk prostate cancer to take part in a study which assesses a new online tool designed to help navigate prostate cancer treatment.

The Navigate website is part of a research study sponsored by Swinburne University and overseen by The Peter MacCallum Cancer Centre in Melbourne. Designed by a team of experts and men with first-hand experience of prostate cancer, the study aims to help men make more informed decisions about their treatment options and provides information about prostate cancer, treatment options, side effects, and ways to keep healthy after diagnosis.

Men can self-refer to the study or be referred from participating hospitals across Australia, with eligibility to be confirmed with the participant's treating doctor. Partners of men diagnosed with low-risk prostate cancer are also welcome to join the study.

Find out more about eligibility criteria and registration at navigateprostate.com.au



Recently diagnosed with Low Risk Prostate Cancer?

We are recruiting men to test an innovative online treatment decision aid. Partners are also welcome to join.

Register your interest here:
www.navigateprostate.com.au

navigate@petermac.org | 03 8559 7453



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