Men are often shocked to discover that difficulties in having a baby could be because of reproductive problems on the male side.

International Men’s Health Week (June 11 – 17) is a great time to get informed about the range of factors including environment, lifestyle and age, that can affect a man’s ability to father children.

Some things to think about are: being vaccinated against mumps, protecting against sexually transmitted infections, avoiding recreational drugs like anabolic steroids, and protecting against sporting injuries to the testes.

General health affects fertility so keeping fit, having a healthy lifestyle and avoiding obesity is wise. Also, fertility in men declines from middle age – so starting your family early is a good idea.

Andrology Australia is a member of the Fertility Coalition running Your Fertility, a new campaign that aims to empower Australians who want to have children with information that will help maximize their chances.

For International Men’s Health Week, the Your Fertility website features a fun animation in which guys talk about how age affects fertility in both men and women.

In addition to the animation, the website (yourfertility.org.au) provides clear and accurate information for men and women about how age and lifestyle affect the ability to conceive and have healthy babies.

The Fertility Coalition consists of the Victorian Assisted Reproductive Treatment Authority (VARTA), Andrology Australia, Jean Hailes for Women’s Health and the Robinson Institute.
It's time to talk about your 'tackle' again, with International Men's Health Week from June 11 to 17. It has been great to see so many community and health groups getting involved in men's health events again this year and we wish you all the best.

If you've been watching or reading the news lately you might have noticed that seizures of illegal performance-enhancing and bodybuilding drugs have doubled in Australia in recent times. These synthetic androgens (known as 'anabolic steroids') are banned in Australia but can be bought online and/or imported from countries where they are legal. Medical prescription of androgens like testosterone has also seen a rapid rise, which has its own implications.

The focus of this issue of The Healthy Male is testosterone use and abuse. With the growing abuse of synthetic androgens, and the number of businesses now peddling testosterone as a 'cure-all' treatment; it is important for consumers to have the facts on these powerful hormones.

Letters to the Editor

Another confusing acronym
I do enjoy reading your copies of The Healthy Male as it keeps me updated in this area of speciality. I was however dismayed to see another acronym used that perhaps muddies the water significantly for us clinicians and is perhaps more likely to lead to medical errors. The acronym ADT has been used throughout clinical medicine as abbreviation for Adult Diphtheria Tetanus (vaccine) – and now the same acronym has been used for Androgen Deprivation Therapy. I was just wondering if whoever came out with the term ADT might consider us poor clinicians, who may well misconstrue the acronym. — David, Melbourne (Vic.)

More details about treatment
I was particularly interested in the information on ADT [in Issue 42] having just started the treatment and now experiencing the usual side effects. I have been researching the issues for some time and there appears to be two missing items of information: how severe are the side effects, and what is the life expectancy after starting ADT. Perhaps you might like to include some information on these two issues in a future edition of The Healthy Male. — Ron, Adelaide (SA)

Health spot - Klinefelter’s syndrome

Klinefelter's syndrome is a genetic condition that only affects males. It is congenital, which means that the condition is present from birth. 

WHAT CAUSES IT?
Men with Klinefelter's syndrome have an extra X chromosome. Chromosomes are found in each cell of the human body. They carry the genetic material that determines all human characteristics, including hair colour, eye colour, height, and sex. One sex chromosome is inherited from the mother and the other from the father. Mothers always pass on an X chromosome, but fathers can pass on an X or a Y chromosome.

The normal male chromosome arrangement is 46XY, but men with Klinefelter's syndrome have 47XXY. The extra X chromosome can come from either parent. It is not known why men with Klinefelter's syndrome have an extra X chromosome.

WHAT ARE THE EFFECTS?
Klinefelter's syndrome is the common cause of male hyponadism, a condition where men are unable to produce sperm or enough of the male hormone testosterone for the body's needs. Testosterone plays an essential role in reproductive and sexual function in men. The inadequate production of testosterone in men with Klinefelter's syndrome affects the development of the male characteristics such as hair and beard growth, penile growth, muscle gain, bone strength and fat distribution.

HOW IS KLINEFELTER’S SYNDROME TREATED?
Klinefelter's syndrome cannot be cured, but men with the condition need lifelong testosterone therapy to maintain general well-being.

For more information, visit www.andrologyaustralia.org or call 1300 303 878.

WHAT IS KLINEFELTER’S SYNDROME?
Klinefelter's syndrome is a genetic condition that only affects males. It is congenital, which means that the condition is present from birth.
Focus on: Unravelling the use and abuse of androgens in Australia

Recent news reports of sports stars abusing ‘performance-enhancing’ drugs; the boom in illegal imports of ‘anabolic steroids’ (synthetic androgens); and most recently, a new trend of ‘steroid vacations’, have all brought to light some alarming health issues. But androgen use and abuse are not well understood by the public or health professionals, and this can have serious implications for men.

What are androgens?

Androgens are male sex hormones, mainly testosterone, that play a key role in reproductive and sexual function. Testosterone is responsible for the physical characteristics of male puberty such as penis development and testicular growth, and for those features typical of adult men such as facial and body hair.

Testosterone stimulates cells in the testes to help in the production of sperm and is important for the good health of many non-reproductive tissues in the body. It plays an important role in the growth of bones and muscles, and affects mood, sex drive and certain aspects of mental ability.

There are different forms of testosterone and synthetically produced androgens, commonly misnamed ‘anabolic steroids’. In Australia, it is illegal to use androgens for non-medical reasons. However, illegal androgen use has become more widespread in recent years. Androgens are increasingly used by recreational body-builders and others with the aim of developing a lean, muscular appearance.

Why should androgens like testosterone be used?

Testosterone replacement therapy has been proven safe and works well for the treatment of men with problems of the pituitary gland or testis that cause androgen deficiency (low testosterone).

Men with clinically proven androgen deficiency (diagnosed in about one in 200 men) can benefit greatly from testosterone replacement, which brings their testosterone levels back to normal. However, because of its nonspecific symptoms androgen deficiency is not easily diagnosed and some men are not being treated with testosterone therapy.

What is ‘misuse’ of androgens?

The medical misuse of androgens is the prescribing of testosterone to men who do not have proven androgen deficiency due to reproductive system disorders.

Recent research shows that in Australia spending on prescribed testosterone has increased more than nine times in the past two decades. This is likely to be due to prescribing for conditions where testosterone treatment has not been shown to work well and/or be safe, including:

- ‘male menopause’ or ‘andropause’
- male infertility
- erectile dysfunction.

‘MALE MENOPAUSE’ OR ‘ANDROPAUSE’

Ageing men who have symptoms that have been linked with androgen deficiency are sometimes described in the media as having ‘male menopause’, ‘andropause’ or ‘late-onset hypogonadism’. Terms such as these are misleading. Menopause is a female condition, which refers to the stopping of menstrual cycle (periods) and a rapid drop in estradiol (female sex hormone) levels. In men, testosterone levels do not stop suddenly but slowly decline from about 45 years of age.

Testosterone treatment has not been shown to be safe and effective for older men without any recognised problems of the pituitary gland or testis.
The use of synthetic androgens or ‘anabolic steroids’ in competitive sport has been banned since 1974. However, their use in elite power sports like bodybuilding continues. High doses of androgens do increase muscle size and strength, but the effects on male sporting performance are uncertain.

The World Anti-Doping Agency (WADA) standardises sports doping tests. WADA has been able to reduce androgen abuse in competitive sport and has developed tests for ‘designer androgens’ — those designed specifically to escape testing methods. The Australian Sports Anti-Doping Authority (ASADA) is the government body overseeing the implementation of the World Anti-Doping Code in Australia.

Increasing numbers of teenage boys appear to be using androgens to try to improve sporting ability and/or physical appearance. Recent research, particularly from the USA, shows that most androgen abuse is now by non-athletes, teenagers and young men, in the desire for improved appearance such as more developed muscles and leaner bodies. A study of Australian high-school students reported about three per cent of 12 to 17-year-old boys had used androgens, and they were more likely to have also used other substances than their peers. This suggests that steroid use might be part of drug experimentation in adolescence.

What are the side effects of androgen abuse?

The side effects of abusing androgens include acne, weight gain, mood changes (especially aggressive behaviour), decreased testes size and low sperm counts leading to infertility. Some men take chemically modified forms of testosterone, which puts them at risk of liver disease.

As androgen abuse is a relatively recent phenomenon, the long-term effects are only now becoming better understood. Long-term effects of androgen abuse may include prostate disease (including cancer), as testosterone can increase prostate cell growth, infertility, and liver damage. Evidence for links with heart disease is getting stronger and recent research suggests effects on kidney and brain function, although more studies are needed.

There is now a focus on investigating ‘androgen-dependence syndrome’, which may be caused by the interaction of psychological factors, the negative effects on the body of androgen withdrawal, and pleasurable (hedonic) effects of androgens.

Too little or too much?

The story of androgens is complex. The under-diagnosis of clinical androgen deficiency in young men — where there is a definite benefit from testosterone replacement therapy, and the misuse and abuse of androgens in other contexts, is proving to be a challenge for men and health professionals.

It is important to understand that androgens can be used safely and work for some medical conditions — as opposed to the unproven use of androgens, and the risky use of androgens for enhancement of athletic ability or appearance.

*This article was developed by Andrology Australia. For references please email info@andrologyaustralia.org.
Men’s health education for GPs working with CALD communities

Andrology Australia recently held two workshops for GPs working with culturally and linguistically diverse (CALD) communities, aiming to increase their involvement in the management of male reproductive health problems. The workshops were run in collaboration with NSW Multicultural Health Communication Service and involved members of the NSW branch of the Vietnamese-Australian Medical Association (VMA) and the Australian Chinese Medical Association (ACMA).

This pilot strategy saw a total of 19 GPs from the VMA and 26 GPs from the ACMA attend the respective workshops. An evaluation analysis showed the GPs’ level of confidence in managing male reproductive health issues increased significantly after attending the workshops.

The GPs surveyed also indicated that more than 70 per cent of their learning needs, in five learning objectives, were entirely met.

Overall, both workshops were well received by attendees, with lively and engaged discussion following the presentation by Andrology Australia Director Professor Rob McLachlan.

Since the workshops, 10 GPs have furthered their interest in male reproductive health by registering for one of the Andrology Australia online active learning modules (ALMs).

Research round-up

Non-prescription androgens on the internet: what is there for the ‘steroid customer’?

The misuse and abuse of androgens (known as ‘anabolic steroids’) has become more widespread in recent years. As the use of androgens without a prescription is illegal in many countries, the internet has become a prime source of androgens for performance enhancement, bodybuilding or improving appearance. Some online pharmacies sell androgens for those with a diagnosed medical condition and a valid prescription, while others bypass prescriptions or operate from countries that do not require prescriptions, such as Thailand.

A study from the journal *Substance Misuse & Abuse* looked at the extent of sites selling anabolic steroids on the internet, what is being offered, and the accuracy of the information provided.

Internet searches for specific products over four months in 2006 showed that about half of the sites advocated ‘safe’ use of steroids and about one third offered them without prescription. Less than five per cent of sites provided accurate information about health risks or information about how to get help to stop steroid abuse.

In total, 32 distinct retail sites (as well as many portals linking to retail sites) were found offering androgens without prescription, as well as various other products and information on how to ‘hide’ steroid use. The study confirms that the internet provides many opportunities to buy anabolic steroids without prescription, combined with much misinformation about their effects.

The study was limited as researchers did not actually buy the products, so it was unclear whether some sites may have been scams. However, the study highlights what a typical internet search might find and the need for education and accurate health information about steroid abuse.

New ADT video on website
A video addressing The Healthy Male (Issue 42) topic Androgen Deprivation Therapy (ADT) for the treatment of prostate cancer is now available at www.andrologyaustralia.org.

The video features Andrology Australia Medical Advisor Dr Carolyn Allan and explains the treatment and side effects of ADT.

More letters please
If you would like to submit a Letter to the Editor, please email media@andrologyaustralia.org or post to Andrology Australia, c/o MIMR, PO Box 5418, Clayton VIC 3168.

E-bulletin for health professionals
If you are a health professional, sign up to our e-bulletin 'Male Briefs' for all the latest news about men's health research and professional events. Visit the 'Health professionals' section of our website for details.

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DISCLAIMER: This newsletter is provided as an information service. Information contained in this newsletter is based on current medical evidence but should not take the place of proper medical advice from a qualified health professional. The services of a qualified medical practitioner should be sought before applying the information to particular circumstances.

In brief

Huge rise in testosterone prescription over two decades

Promotion of myths like ‘andropause’ or ‘male menopause’ has caused a significant rise in testosterone prescription, according to a recent paper published in the Medical Journal of Australia.

The paper’s author, Andrology Australia board member Professor David Handelsman said rates of expenditure on government-subsidised testosterone products had risen nine-fold over the past two decades – to more than $12 million each year.

Interestingly, there were striking differences in prescription rates between the states – with Queensland the highest prescriber of testosterone for its population.

Western Australia, one of the lowest testosterone prescribing states in the early 90s, saw the biggest increase – reaching more than four times its original level by 2010.

Even when adjusted for inflation and population increases across the country, the total amount spent on testosterone in 2010 was still more than four times the amount spent in 1992.

The research, based on data from the Pharmaceutical Benefits Scheme (PBS), updates the surveillance of national testosterone prescribing and incorporates an independent commercial pharmaceutical sales data source.

Professor Handelsman said this study showed the need for better controls on testosterone prescription.

“There is no evidence to suggest rates of testosterone deficiency have increased or that diagnosis of the condition had improved,” he said.

“Therefore, a more likely explanation for the increased prescription and expenditure rates is the opportunistic promotion of testosterone through new products for non-approved uses, such as to treat ‘andropause’ or non-specific male sexual dysfunction.”