

Andrology Handbook

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Balanitis and balanoposthitis

What is balanitis?

Balanitis is the medical term used for inflammation of the glans penis (the head of the penis). Balanoposthitis refers to inflammation of both the head and foreskin of the penis. Balanitis is not the same as lichen sclerosis, which is also known as BXO (balanitis xerotica obliterans).

Balanitis affects between 1 in 3 to just over 1 in 10 men at some point in their lives. Balanoposthitis only affects uncircumcised men and occurs in about 1 in 17 of them. Balanitis most commonly occurs in (1 in 25) boys under 4 years of age and (1 in 30) uncircumcised men.

Symptoms of balanitis

If you have balanitis or balanoposthitis, you might experience pain in your penis, swelling and/or redness of the head of the penis.

Causes of balanitis

Fungal infection is the overall most common cause of balanitis, but the irritation of the head of the penis is the most common cause of mild cases of the disease.

The fungus found most often in cases of balanitis (*Candida albicans*) is common but doesn't always cause problems. Poor hygiene in uncircumcised males can lead to infections associated with balanitis.

Other causes of balanitis include:

- Infection from other fungi, bacteria, and viruses
- Chemical irritants
- Allergies
- Health conditions like heart failure, obesity, and diabetes.

Balanitis is more common in males who are not circumcised than in those who are, suggesting that circumcision protects against the disease.

Diagnosis of balanitis

Balanitis and balanoposthitis are usually diagnosed by examining the penis. In some cases, a biopsy might be needed to identify an underlying cause. Causes of balanitis that need to be excluded during diagnosis, or treated, include skin diseases like eczema, psoriasis and dermatitis.

Treatment of balanitis

Applying an antifungal cream for a couple of weeks is the usual treatment for balanitis. Your doctor might suggest using a mild steroid cream as well.

Oral antifungal medicine might be prescribed in more severe cases of balanitis or balanoposthitis.

Your doctor might prescribe an antibiotic if it looks like there is a bacterial infection associated with your balanitis.

In some men, balanitis or balanoposthitis can recur or persist after treatment.

If you suffer from persistent or recurrent balanitis, your doctor might suggest you consider getting circumcised.

Prevention of balanitis

Good hygiene is the easiest way to minimise your chance of balanitis. But if you have balanitis, washing with soap too often might make it worse.

Health effects of balanitis

It's important to identify the underlying cause of your balanitis. In many cases, simple improvements in hygiene might be enough to prevent it from coming back after successful treatment.

Seeing your doctor sooner rather than later will minimise the chances of complications from balanitis, which can include:

- Ulcers
- Narrowing of the urethra
- Potentially serious foreskin problems like phimosis and paraphimosis
- The development of cancer.

If you have a compromised immune system as a result of age, HIV, or other causes, serious infection can result from the microorganisms that cause balanitis.

Balanitis is associated with a higher-than-normal risk of penis cancer, but the risk is still very low.

What to do about balanitis

If your penis is sore, red, or swollen, see your doctor as soon as you can to rule out potentially serious causes, receive effective treatment, and avoid complications. The microorganisms that cause balanitis can be passed between you and your sexual partner(s), so you should encourage them to see their doctor too.

Blood in semen (haematospermia)

What is blood in your semen?

Haematospermia is the medical term used to refer to the presence of blood in your semen. It's usually painless, but the sight of blood in your semen can be scary. A single occurrence of haematospermia is usually nothing to worry about.

It's difficult to know how common haematospermia is because people don't always look at their semen after they ejaculate. People who do notice it might not talk to their doctor about it because they're embarrassed or scared.

Among more than 26,000 American men screened for prostate cancer (aged 40 years or older), only 0.5% had haematospermia. It might be more common in men under 40 years², but available data isn't reliable.

Symptoms of blood in your semen

Blood in your semen may appear as a spot of bright red blood, or your entire ejaculate may be coloured.

Bright red blood is fresh and due to recent bleeding, whereas brown or black blood is older and suggests some time has passed since the bleeding occurred.

If you're over 40 and haematospermia is observed over a prolonged period of time, it may be a symptom of a problem that needs treatment, especially if you have other symptoms such as pain or lower urinary tract symptoms (LUTS).

Causes of blood in your semen

Infections, inflammation or small stones within the reproductive system are the most likely causes of haematospermia. Injury and trauma are other common causes of haematospermia, sometimes resulting from procedures used to diagnose or treat other conditions. Cancer is a rare cause of haematospermia.

People who have blood clotting problems, or who are taking blood-thinning medication, may get blood in their semen more often than those who don't. Severely high blood pressure may also cause haematospermia.

In most cases, haematospermia is not caused by anything life-threatening. In lots of cases, the cause of haematospermia is not known, and it goes away on its own.

Diagnosis of blood in your semen

When you see your doctor about blood in your semen, they will perform a physical examination and ask questions to rule out the possibility that the blood is from somewhere else, like your urine or from your sexual partner.

Your doctor may take your blood pressure and ask for samples of urine or semen. They may refer you to a urologist if they think further investigations are needed.

Other investigations may include blood tests, imaging using ultrasound or MRI, and cystoscopy.

Treatment of blood in your semen

Treatment for haematospermia depends on the underlying cause. If it's due to infection, the right antibiotics or other treatment should fix it. If your haematospermia might be due to something more serious, the priority will be to identify and treat that. Injury or trauma should heal itself with time.

Health effects of blood in your semen

Haematospermia might alert you and your doctor to some underlying problem that may impact your health, but usually there are no implications for your health and wellbeing.

What to do about blood in your semen

If you notice blood in your semen, you should go and see your doctor about it.

Breast cancer

What is breast cancer?

Breast cancer is caused by the abnormal growth of cells that make up breast tissue. Men have a small amount of breast tissue so it's possible for them to get breast cancer, but it's a much rarer condition in men than women.

It's important to remember that most breast lumps occurring in men are not cancer.

Breast cancer in men has some similarities to breast cancer in women but there are some biological differences that can affect the choice of treatments.

Breast cancer occurs in around 12 Australian men per million each year, and accounts for about one out of every 170 new cases of cancer.

The incidence of breast cancer in Australian males is slowly increasing, with about 165 new cases expected in 2021.

Symptoms of breast cancer

Breast cancer in men is usually noticed as a painless lump behind the nipple and areola (the ring of pigmented skin surrounding a nipple), because that's where the breast tissue is found.

Other signs of male breast cancer can include:

- Nipple retraction
- An open sore (ulcer)
- Bleeding from the nipple (this is rare).

In most cases, breast cancer occurs in only one breast.

Causes of breast cancer

The chance of getting breast cancer is affected by genetics and age.

Men's risk of breast cancer is increased by:

- A family history of breast cancer
- Radiation exposure
- Increasing age
- Conditions that affect the balance between androgens and oestrogens (including Klinefelter syndrome, obesity, and oestrogen treatment for prostate cancer or gender affirmation).

Diagnosis of breast cancer

If your doctor is worried changes in your chest might be breast cancer, they'll usually send you for an X-ray or ultrasound scan, and sometimes a biopsy.

Treatment of breast cancer

Surgery to remove the breast tissue, nipple and areola is usually the first step of treating breast cancer in men.

Treatment with tamoxifen (a medication that affects the action of oestrogens) for at least five years after surgery is commonly recommended. Chemotherapy or radiation therapy is used in some cases if there is a significant possibility cancer has spread.

Health effects of breast cancer

Long-term monitoring is necessary for all people who have had breast cancer because of the risk of recurrence⁹.

Breast cancer is often diagnosed at a more advanced stage in men than women.

Because of this, outcomes can be worse for men than women. However, when matched for a patient's age and disease severity, the risk of dying from breast cancer is not different between genders⁷.

What to do about breast cancer

If you notice changes in your chest, particularly a lump in or behind your nipple or areola, see your doctor straight away because early diagnosis of breast cancer will help you achieve the best outcome.

You shouldn't assume any changes in your breast tissue are benign.

Cardiovascular disease

What is it cardiovascular disease?

Cardiovascular disease is a term used to refer to a group of disorders that affect the heart and blood vessels.

These include:

- Coronary heart disease: disease of the blood vessels supplying the heart
- Cerebrovascular disease: disease of the blood vessels supplying the brain
- Peripheral arterial disease: disease of the blood vessels supplying the arms, legs and organs throughout the body
- Atherosclerosis: the disease process that causes the development of fatty plaques in the walls of arteries, which can lead to narrowing of the vessel and/or breakdown of the arterial wall
- Rheumatic heart disease: caused by damage to the heart muscle and valves during rheumatic fever
- Congenital heart disease: problems caused by abnormal development of the heart
- Deep vein thrombosis (blood clots) and pulmonary embolism (a blood vessel blockage in the lungs)
- Arrhythmia (abnormal heart rhythm)
- Heart failure (weakness of the heart muscle so that it can't pump blood around the body properly)
- Hypertension (high blood pressure)

Heart attacks and strokes are events that occur as a result of underlying cardiovascular disease. Cardiovascular disease is the leading cause of illness and death worldwide.

Cardiovascular disease affects around 1 in 17 Australian males overall but becomes more common as you get older.

Cardiovascular disease is responsible for 11% of hospital admissions in Australia, mostly in people aged over 55 years. More than 1 in 4 Australian deaths are caused by cardiovascular disease.

Aboriginal and Torres Strait Islander people are 50% more likely than non-indigenous Australians to die or need hospitalisation because of cardiovascular disease.

Symptoms of cardiovascular disease

Cardiovascular disease may have no symptoms, so you don't even know you have it until you have a heart attack or stroke.

Symptoms of a heart attack in men are most often intense chest pain, pain in the left arm or jaw, and difficulty breathing.

Signs of stroke are a weakness of facial muscles and/or arms and problems with speaking or understanding.

Depending on the type of cardiovascular disease you have, symptoms may include:

- Pain, tightness, pressure, or discomfort in the chest
- Pain, weakness, or numbness in your arms and/or legs

- Pain or discomfort in your arms, neck, shoulder, jaw, or back
- Shortness of breath
- Tiring easily during activity
- Abnormal heart rhythm
- Dizziness, lightheadedness, or fainting
- General weakness or fatigue
- Swelling in the hands, legs, ankles, or feet
- Fever
- Rashes or spots on your skin
- A cough that is dry or doesn't go away.

Causes of cardiovascular disease

The processes in the body that cause cardiovascular disease are not entirely understood, but abnormal structure and function of the blood vessels seem to be the first sign. High blood pressure and abnormal levels of cholesterol in the blood certainly cause symptoms of cardiovascular disease to get worse, and successful treatment of these problems reduces the risk of heart attack or stroke.

Heart attacks are caused by a blockage in one (or more) of the arteries that supply the heart muscle. The lack of blood flow causes the heart muscle cells to die, resulting in lasting damage.

Strokes are caused by a blockage in arteries supplying blood to the brain or bleeding in the brain. There is a range of lifestyle and health factors that affect your risk of cardiovascular disease, including nine modifiable risk factors (factors you can change) that account for more than 90% of the global risk of heart attack⁵.

The factors associated with reduced risk of heart attack are:

- Getting enough exercise
- Eating enough fruit and vegetables
- Consuming moderate amounts of alcohol

The factors associated with increased risk of heart attack are:

- Abnormal cholesterol levels
- Diabetes
- Obesity
- Hypertension (high blood pressure)
- Smoking
- Stress and depression.

Research studies have found several other factors associated with a higher-than-normal risk of cardiovascular disease, but these aren't always considered by health professionals. Examples include levels of various inflammatory proteins and periodontal (gum) disease. One important risk factor for cardiovascular disease that is specific to men is erectile dysfunction⁷. Men who have problems with getting or keeping an erection are more likely to have cardiovascular disease than men with normal erectile function, independently of other factors.

Erectile dysfunction usually occurs three to five years before coronary heart disease. This

means there's time after erectile dysfunction starts for men to take action to prevent heart attacks and other effects of cardiovascular disease. The way we develop before we are born seems to influence our risk of cardiovascular disease⁸. For example, people born with low birth weights tend to have higher blood pressure later in life than people born with normal birth weights. This doesn't mean there's nothing you can do after you're born to minimise your risk of cardiovascular disease. It does mean that you can help to minimise your children's risk of cardiovascular disease by remaining healthy yourself because your health influences the health of your sperm.

Diagnosis of cardiovascular disease

To diagnose cardiovascular disease, your doctor will look at your medical and family history, perform some tests (e.g. blood tests), and examine you (e.g. measure your blood pressure) to investigate if you have any known risk factors.

Your doctor may use an online risk assessment tool like the Australian absolute cardiovascular disease risk calculator to assess your risk of cardiovascular disease.

Depending on the results from your initial tests, examination, and risk assessment, your doctor might order more tests, including¹⁰:

- A stress test
- A chest x-ray
- An ECG (electrocardiogram)
- An echocardiogram
- A CT scan
- An MRI scan
- Coronary angiography.

Treatment of cardiovascular disease

The way cardiovascular disease is treated depends on the type of problem, what might be causing it and how severe it is.

For most people with cardiovascular disease, treatment will include changes in diet and exercise. In some people, this may be enough to reverse or decrease the progression of their disease. Not smoking is important for avoiding cardiovascular disease. Help dealing with stress may also be part of treatment for cardiovascular disease.

Medications to reduce blood pressure, cholesterol levels, clotting and glucose levels, and to regulate the force and rate of heartbeats, are commonly used to treat cardiovascular disease.

Cardiovascular disease may require surgery or other invasive procedures to bypass blockages or open up arteries or repair diseased or damaged heart tissue or blood vessels.

Health effects of cardiovascular disease

What does cardiovascular disease mean for my health?

Cardiovascular disease is progressive. It develops slowly over time, without symptoms, until it becomes serious enough for you to notice it. Addressing the disease risk factors is necessary to reduce your chances of serious events like heart attack or stroke.

If you have had a heart attack or stroke, you'll probably need to take time for rehabilitation before you can get back to your usual level of activity. In some cases, you may not recover fully.

Cardiovascular disease is a life-threatening condition. It's responsible for more deaths than any other cause. Treatment using lifestyle changes, medications and other interventions are effective, but prevention of cardiovascular disease in the first instance should be your goal.

What does cardiovascular disease mean for my sex life?

The association between cardiovascular disease and erectile dysfunction⁸ shows that your sex life can be affected.

Symptoms of cardiovascular disease, like general weakness or fatigue, might reduce your libido (sex drive). You might be concerned about the safety of having sex if you have cardiovascular disease, but it's probably safe if your disease is under control. If you're recovering after a heart attack, stroke or some other cardiovascular event, you should check with your doctor that it's safe to have sex.

What to do about cardiovascular disease

If you notice any symptoms of cardiovascular disease, make an appointment to see your doctor.

There's a Medicare rebate specifically for a 20-minute heart health check, which might be appropriate for you.

Regular check-ups with your doctor to work out your risk of cardiovascular disease, and to look for signs of cardiovascular disease, can help identify cardiovascular disease early. The association between moderate alcohol consumption and low risk of cardiovascular disease may not apply to you, so you should discuss alcohol consumption with your doctor.

Circumcision

What is circumcision?

Circumcision is the surgical removal of the foreskin (the sleeve of skin that covers the end of the penis) to expose the glans (head of the penis).

Most of the circumcisions performed in Australia are on baby boys. About 1 in 10 baby boys get circumcised.

Before the 1970s, the majority of baby boys were circumcised, so it is more common in older Australian men than in younger males.

Reasons for circumcision

Circumcision is performed for medical, cultural and religious reasons.

Medical reasons for circumcision include ongoing problems with urinary tract infections and foreskin problems, such as phimosis.

Circumcision can reduce transmission of some sexually transmitted infections, such as HIV, so there may be a benefit to public health in some groups of people at high risk.

Health effects of circumcision

Circumcised males are less likely than non-circumcised males to have urinary tract infections, phimosis, paraphimosis and balanitis, or to develop penis cancer³. However, many uncircumcised males never experience these problems.

If you have recurrent problems with your foreskin, circumcision is often an effective treatment. Circumcision is a common and usually straightforward surgical procedure, but it's not without complications. As for any medical or surgical procedure, the potential benefits of circumcision need to be weighed against possible harms. These include surgical accidents, complications from anaesthetics, and infection after surgery.

Circumcision is a less complicated operation in baby boys than it is in older boys and men. Complication rates are also lower if circumcision is done to prevent disease, rather than to treat an existing problem.

Circumcision does not seem to result in any benefit or advantage when it comes to sexual function.

What to do about circumcision

If your doctor has recommended circumcision for an existing health problem, there's probably a good reason for the suggestion. You should talk with your doctor about any concerns you may have.

Whether the preventive benefit of circumcision is worthwhile for newborn babies is a decision for parents, with the guidance of medical care professionals.

Delayed ejaculation

What is delayed ejaculation?

Ejaculation is associated with orgasm but they are two separate physiological processes. While it's possible to reach orgasm and not ejaculate, you can't ejaculate if you don't reach orgasm¹.

Delayed ejaculation is the term commonly used for conditions that result in men experiencing difficulties with reaching orgasm and ejaculating.

We don't really know how many men have delayed ejaculation, but it's probably somewhere between 1 in 5 and 1 in 50.

Delayed ejaculation is more likely to occur if you have particular health conditions or take specific types of medicines.

Symptoms of delayed ejaculation

Delayed ejaculation is diagnosed if you take a long time to reach orgasm or do not reach orgasm at all, even though you want to and are trying, and you are upset or having relationship problems because of it.

Causes of delayed ejaculation

Orgasm and ejaculation are both controlled by the nervous system, so psychological and physical things that affect the necessary nerve activity can both contribute to delayed ejaculation³.

Examples of *psychological reasons* for delayed ejaculation include:

- Performance anxiety
- Religious conflict
- Fears of pregnancy, intimacy, or abandonment.

Physical causes of delayed ejaculation can include:

- Abnormalities in reproductive system development
- Nerve damage from diabetes or surgery
- Aging
- Hormone problems.

The way some men masturbate can affect their ability to reach orgasm and ejaculation with their sexual partners.

Antidepressants and medications to help control blood pressure are among the drugs that may delay ejaculation.

The more medical problems you have, the more likely you are to have delayed ejaculation. Stress and being tired also increase your chance of delayed ejaculation⁵.

Diagnosis of delayed ejaculation

The reasons for delayed ejaculation vary from person to person and can be quite complicated. Your doctor may need to perform a physical examination, ask some questions and run some tests to work out the best way to treat your delayed ejaculation.

Treatment of delayed ejaculation

There are a variety of medications that can be used to treat delayed ejaculation, but vibratory stimulation of the penis and counselling are usually effective.

If the cause of your delayed ejaculation is psychological, then speaking to someone like a

sexual health therapist can help.

Health effects of delayed ejaculation

Delayed ejaculation can make you depressed or anxious and can have negative effects on your relationship with your partner.

Delayed ejaculation can be successfully treated but, because it's such a complex problem, it's difficult to know how long it might take and exactly how successful your treatment will be.

What to do about delayed ejaculation

If you sometimes take a long time to reach orgasm and ejaculate but it doesn't bother you or your partner, then you probably don't need to worry too much about it. But it might still be worth mentioning to your doctor, so they can keep a full record of your health and wellbeing.

If problems with orgasm or ejaculation are bothering you, it's best to see your doctor sooner rather than later.

Diabetes

What is diabetes?

Diabetes is a condition where you have too much sugar (specifically, a sugar called glucose) in your blood.

Insulin is the hormone that lowers your blood sugar levels. Diabetes develops when the pancreas, (the gland that makes insulin), can't make insulin, or when your body doesn't respond to insulin. Without enough insulin, blood sugar levels rise, which then leads to diabetes.

If it goes undetected or isn't controlled, diabetes can cause serious short term and long term health complications.

What are the different types of diabetes?

There are two main types of diabetes.

Type 1 diabetes can begin at any age, but often starts in childhood or young adulthood. If you have type 1 diabetes, your body can't make enough insulin, and you must take extra insulin every day.

About 85% of people with diabetes have type 2 diabetes. Type 2 diabetes is linked to diet, lack of exercise, being overweight, and family history. If you have type 2 diabetes, your pancreas doesn't produce enough insulin, and the insulin it does produce doesn't work properly. This means your body can't control its blood sugar levels.

How can I prevent diabetes?

Type 1 diabetes cannot be prevented. However, type 2 diabetes can be prevented by a healthy lifestyle, including regular physical activity, a balanced diet, and keeping weight in a range that's healthy for you.

What health problems are caused by diabetes?

If diabetes isn't detected, or it isn't controlled, it can reduce your lifespan.

Diabetes can cause blindness, kidney failure, nerve damage, reduced blood circulation and can increase the chance of heart attack and stroke. If you have diabetes, you also have a higher chance of developing sexual and reproductive health problems, including:

- Erectile dysfunction
- Low levels of testosterone
- Low sex drive
- Semen flowing back into the bladder (retrograde ejaculation)
- Inflammation of the head of the penis (balanitis).

What can I do?

Speaking to a doctor about sexual and reproductive health problems is particularly important if you have diabetes. You can talk with your doctor about lifestyle changes or other ways to control your blood sugar levels. Your doctor might refer you to a specialist

or sexual therapist if it's suitable for you.

Diabetes and erectile dysfunction

If you're having difficulty getting or maintaining an erection, this is called erectile dysfunction. It's not a disease, but a symptom of another problem, which might be physical, psychological, or a mixture of both.

Erectile dysfunction is very common.

How common is erectile dysfunction in men with diabetes?

Erectile dysfunction is more common in men who are overweight or who have heart disease, high blood pressure, or high cholesterol. These are all common conditions in people with diabetes.

If you have diabetes, you're twice as likely to experience erection problems.

How can I prevent erectile dysfunction with diabetes?

Erectile dysfunction is more likely to happen when blood sugar levels aren't well controlled. Keeping blood sugar and blood lipids (cholesterol and triglycerides) normal is important to prevent nerve and blood vessel damage to the penis.

Not smoking and drinking less alcohol can also help prevent erection problems.

How is erectile dysfunction treated with diabetes?

First, you need to focus on your diabetes and any other related conditions, such as high blood pressure.

Once your diabetes is properly controlled, the first treatment for erection problems is usually an oral medication, such as Viagra. If you've got diabetes, this medication has about a 50% chance of working. If oral medicines don't work, there are other treatments that you can explore, including penis injections and surgery.

Diabetes and low testosterone

Low testosterone (or testosterone deficiency) is when your body isn't able to make enough testosterone to function normally. Testosterone is a key hormone that is important for normal reproductive and sexual function.

If you have type 2 diabetes, low testosterone levels are a common problem. You're more likely to have testosterone problems if you're diabetic and also overweight.

Low energy levels, mood swings, irritability, poor concentration, reduced muscle strength and low sex drive might be symptoms of low testosterone. These symptoms often overlap with those of other illnesses.

How does diabetes cause low testosterone?

There is a hormone made in the brain called luteinizing hormone (or LH) that the testicles use to make testosterone. The high levels of blood sugar in men with diabetes

can impact the amount of LH that the brain releases, which means that the testicles can't make enough testosterone.

Can low testosterone be prevented in men with diabetes?

Keeping a healthy weight and doing regular exercise to control blood sugar levels can keep your testosterone levels normal.

How is low testosterone treated in men with diabetes?

If you've got diabetes and low testosterone, you should get treatment for the diabetes and any other illnesses first, as this might return your testosterone levels to normal.

If you're overweight, weight loss might help.

For men with diabetes and low testosterone caused by genetic disorders or other conditions, your doctor might recommend testosterone therapy.

Diabetes and low sex drive

Low sex drive (low libido) is the term used to describe a lack of interest in sex.

Sexual desire is different for each person, and might change over time depending on what's happening in your life. Some people aren't concerned about having low sex drive. However, if you lose interest in sex for no apparent reason, and it's a concern for you, talking to a doctor can help.

How can diabetes cause low sex drive?

Diabetes can cause low testosterone levels, which leads to low sex drive. On top of this, other problems sometimes caused by diabetes, such as difficulty getting an erection, can lower your interest in sex.

How is low sex drive treated in men with diabetes?

The treatment for low sex drive for diabetics varies from person to person.

Controlling your blood sugar levels can help improve your interest in sex. If you have low sex drive because of low testosterone, then you might need testosterone therapy.

Counselling can also be helpful for finding out whether there are psychological or relationship issues that could be affecting your interest in sex.

The best way to figure out how to deal with low sex drive is to speak to a doctor.

Diabetes and retrograde ejaculation

Retrograde ejaculation is when the muscle at the opening of the bladder, which usually stops semen from entering the bladder when you orgasm, doesn't close properly. This causes semen to flow back into the bladder.

If, when you orgasm, you ejaculate little or no semen, retrograde ejaculation could be the problem. Your urine might also be cloudy when you first urinate after orgasm.

How does diabetes cause retrograde ejaculation?

If you have diabetes, the high levels of sugar in your blood can damage the nerves and muscles that open and close the neck of the bladder (external sphincter muscle). This

muscle usually stops semen from entering the bladder when you orgasm — so if it isn't closing properly, semen flows back into the bladder instead of being ejaculated.

How is retrograde ejaculation treated in men with diabetes?

If retrograde ejaculation is caused by diabetes, controlling blood sugar levels and making lifestyle changes can help. Often, you won't need treatment. However, retrograde ejaculation can make it more difficult for you to have a baby. If you have retrograde ejaculation and you're trying to conceive, you might need the help of assisted reproductive technologies such as in-vitro fertilisation (IVF).

Diabetes and balanitis

Balanitis is a common infection that causes inflammation at the head of the penis (glans penis). It can affect you at any age.

What are the symptoms?

If you have balanitis, you might not be able to pull back your foreskin over the head of the penis. You might have itchiness, a rash, redness, swelling, or discharge from the penis. Because these symptoms can also indicate other problems, it's important to speak to your doctor.

How can diabetes cause balanitis?

Sometimes after urinating, urine gets trapped under the foreskin. If you have diabetes, the sugar in your urine can encourage bacteria to grow in the moist area under the foreskin, leading to infection (balanitis).

One of the groups of medicines used to treat diabetes could also increase the risk of balanitis.

What treatments are there?

Washing your penis and the inside of the foreskin with soap and warm water is important. Talk to your doctor about controlling your blood sugar levels, and they might prescribe antibiotics or antifungal medication to help clear up the infection.

Epididymitis

What is epididymitis?

Epididymitis is caused by infection, irritation, or injury of the epididymis – the thin, coiled tube that is found behind the testicles. It's where the sperm are stored and mature before ejaculation.

Epididymitis is one of the most common causes of pain in the scrotum and can affect males at any age.

Sometimes epididymitis can occur at the same time as orchitis, resulting in a condition called epididymo-orchitis.

Symptoms of epididymitis

Epididymitis causes pain and swelling in the scrotum, on one or both sides. You might have pain when urinating, not be able to hold on, or need to urinate urgently or often. Epididymitis can cause a discharge from the penis, or cause fever.

Causes of epididymitis

Epididymitis occurs most often in men aged between about 20-40, usually in association with a sexually transmitted infection. In older men, infections by bacteria from the gastrointestinal tract are more common causes of epididymitis, arising from problems with urine flow.

In boys and young males who have not yet engaged in sexual activity, the most likely cause of epididymitis is from repetitive irritation of the epididymis during physical activity.

Diagnosis of epididymitis

Your doctor will need to examine you to diagnose epididymitis. They'll look for swelling and redness of your scrotum. Your scrotum may feel warm and cause you some discomfort when touched.

Your doctor will probably ask for a urine sample to test for bacteria.

In some cases, your doctor might want you to have an ultrasound scan of your scrotum to rule out other possible causes of pain and swelling.

Treatment of epididymitis

Drinking lots of water can help to flush out some of the bacteria in your urinary system and help relieve epididymitis.

Epididymitis is usually treated with antibiotics. Your doctor might start you on them straight away, but you might need to change the type of antibiotic depending on your test results.

Health effects of epididymitis

If your epididymitis is caused by a sexually transmitted infection, you shouldn't engage in sexual activity until the infection has gone. You should also tell your sexual partner(s) to get checked. You might need to change your sexual activity to avoid epididymitis coming

back.

Rarely, epididymitis may have implications for your fertility.

Antibiotic treatment of epididymitis usually cures the problem, but it can come back if you don't take your full course of antibiotics or follow other recommendations from your doctor.

What to do about epididymitis

If you have any pain or swelling in your scrotum, you should see your doctor about it straight away, to prevent it getting worse and to rule out problems that might be serious.

Erectile dysfunction

What is erectile dysfunction?

The majority of Australian men aged over 45 have some form of erectile dysfunction, but it's much less common if you're healthy than if you have a chronic disease, are overweight, smoke cigarettes or don't exercise.

Erectile dysfunction becomes more likely as you age. If you're under 40 and have erectile dysfunction, you're among up to 10% of men in your age group who are affected. If you're 85 or older and have erectile dysfunction, you're like nearly all men your age.

Symptoms of erectile dysfunction

If you have erectile dysfunction, you might:

- Have difficulty getting or keeping an erection
- Experience problems engaging in sexual intercourse due to your penis not being hard enough.

Causes of erectile dysfunction

Health problems increase your risk of erectile dysfunction. For example, you're more than twice as likely to have erectile dysfunction if you have diabetes than if you don't. Other health problems that increase your risk of erectile dysfunction are:

- Parkinson's disease
- Heart disease
- Diabetes
- Stroke
- Cancer
- Depression and/or anxiety
- Blood clotting problems
- Osteoporosis
- High blood pressure
- Arthritis
- Thyroid problems
- Asthma
- High cholesterol
- Lower urinary tract symptoms (LUTS)
- Obesity
- Lack of exercise
- Sleep apnoea
- Long-term alcohol use
- Smoking

Prostate cancer treatment increases your likelihood of erectile dysfunction considerably, with 85% of men with previous prostate cancer having erectile dysfunction.

Getting and maintaining an erection involves changes in blood flow within your penis in

response to nerve stimulation. If something interferes with the function of the blood vessels or nerve transmission, this can cause erectile dysfunction.

The same mechanisms that control blood flow in your penis also control blood flow throughout your body. This is why erectile dysfunction is often a sign of cardiovascular disease. In fact, if you have erectile dysfunction, you are at higher risk than normal of coronary heart disease, stroke and death.

Other factors that can contribute to erectile dysfunction include:

- Low testosterone levels
- Some medications (e.g. antidepressants, blood pressure-lowering drugs)
- Some recreational drugs (e.g. nicotine, heroin)
- Psychological factors like depression or anxiety, or relationship problems.

Diagnosis of erectile dysfunction

Erectile dysfunction is diagnosed based on your satisfaction with your ability to get and maintain an erection.

Your doctor will work out the cause of your erectile dysfunction, so they can find a treatment that suits you.

Treatment of erectile dysfunction

You might be able to get back to normal erectile function simply by taking better care of yourself. A healthy diet, regular exercise and avoiding excessive drinking, smoking, and drug use may not only improve your erectile dysfunction but will also benefit your overall health and wellbeing. A healthy lifestyle will help you avoid the conditions that cause erectile dysfunction, as well as many other health problems.

If there's a psychological cause of your erectile dysfunction, speaking to a psychologist or sexual health therapist may help.

Medical treatment for erectile dysfunction is usually a type of drug known as a phosphodiesterase type-5 (PDE5) inhibitor, like sildenafil (Viagra) or tadalafil (Cialis). If you're using nitrates to manage heart pain, you shouldn't use PDE5 inhibitors.

If your erectile dysfunction is caused by a hormonal problem like low testosterone, your doctor will usually suggest treating that first.

If medications are unsuccessful in treating your erectile dysfunction, your doctor may suggest using alprostadil, which is injected directly into the penis using a small needle, or a vacuum device.

Surgical insertion of a penis implant is possible if nothing else improves your erectile dysfunction.

Some treatments marketed for erectile dysfunction, such as platelet-rich plasma (PRP) injections and acoustic shock wave therapy, are unproven. More research is needed to identify if these treatments are effective and safe.

Health effects of erectile dysfunction

Erectile dysfunction can have a significant effect on how you and your partner feel, so it's

important for that reason alone to seek help. However, an erection is not an absolute requirement for a satisfying sex life. You can have an orgasm and ejaculate without an erection.

Erectile dysfunction is often a sign of an underlying health problem. If you ignore your erectile dysfunction, you might be missing an opportunity to prevent the development of more severe disease.

What to do about erectile dysfunction

If your erectile function is causing you any concerns, make an appointment to see your doctor about it.

Fordyce spots

What are Fordyce spots?

Fordyce spots are small (1-5 mm) pale spots that can be found on your penis and scrotum. They may also occur on your lips and the inside of your cheek.

Fordyce spots are usually more obvious when the skin is stretched, so you might notice them more when you have an erection or when you are warm and your scrotum is loose. Fordyce spots are a type of sebaceous gland (small glands usually associated with hair follicles that produce sebum, the oily substance that helps to protect the skin). They are a normal part of your body.

About 4 out of 5 people have Fordyce spots on their genitals and/or mouths. They usually first appear at puberty.

Causes of Fordyce spots

Fordyce spots are a normal part of your body. They are not a cause or consequence of disease. Fordyce spots are not contagious.

Diagnosis of Fordyce spots

People often mistake Fordyce spots as a sign of sexually transmitted illness, and some sexually transmitted infections can look like Fordyce spots in the early stage of infection. Your doctor will be able to tell the difference between Fordyce spots and other lumps and bumps that might occur on your penis and scrotum.

Treatment of Fordyce spots

Fordyce spots don't need to be treated because they're a normal part of your body. If you're bothered by the appearance of your Fordyce spots, it's possible to have them removed through surgery, freezing, burning or laser treatment.

Health effects of Fordyce spots

Fordyce spots are not associated with any health problems. Their appearance may be a cause of concern, but you can feel reassured they're completely normal and most people have them.

What to do about Fordyce spots

Some sexually transmitted infections can start off looking like Fordyce spots. If you notice new spots or they change in appearance, see your doctor straight away for proper diagnosis (and treatment if necessary).

Fractured penis

What is a penile fracture?

When you get an erection, blood fills the spaces in two tube-like chambers in your penis called the corpora cavernosa. This makes the corpora cavernosa swell, stretching the fibrous tissue that surrounds them, which is called the tunica albuginea. It's the filling of the corpora cavernosa with blood, and the stretching of the tunica albuginea, that makes your penis hard.

A penile fracture occurs if one or both corpora cavernosa rupture through the tunica albuginea when your erect penis is knocked or forced to bend.

Penile fracture is rare. The exact number of men who experience a fractured penis is unknown, but it probably occurs in 1 in 10,000 to 1 in 100,000 men.

Symptoms of a penile fracture

When you fracture your penis, it can make a loud 'snap' or 'pop' and there is immediate pain. Bruising usually occurs quickly.

Causes of a penile fracture

Vigorous sexual activity is usually the cause of penis fracture.

Diagnosis of a penile fracture

An examination is needed to diagnose penile fracture. An ultrasound scan may be needed to identify the site and size of the injury and find out if other structures within your penis are damaged.

Treatment of a penile fracture

A fractured penis usually needs to be repaired surgically, and the sooner this happens the better. Your doctor might recommend medication to prevent erections during this time.

Health effects of a penile fracture

You'll need to go without sexual activity for about six weeks after surgical repair of a penile fracture. Some people become anxious about the possibility of a penile fracture happening again, which can affect their sex drive.

After surgical repair of the fracture, the shape of your penis might be different, or the

quality of your erections might not be as good as it was. These complications can be treated.

What to do about a penile fracture

If you think you have fractured your penis, you should go to the emergency department at your local hospital.

Genital warts

What are genital warts?

Genital warts usually appear as a group of small, raised bumps on the scrotum, or on the shaft or tip of the penis. However, you may also get a single wart. Warts may also appear in or around the anus.

Genital warts range in colour and size and may be rounded or flat, smooth or rough.

The incidence of genital warts is highest in young men aged 25-29 years.

In 2010, the incidence of genital warts was 1 in 135 Australian males aged 25-29, with an overall incidence of about 1 in 500 males. Since then, the incidence of genital warts has decreased by at least 50%.

Symptoms of genital warts

Apart from the warts themselves, genital warts usually don't cause any symptoms, but they can itch in some people.

Causes of genital warts

Genital warts are caused by human papillomavirus. There are lots of different types of human papillomavirus, but types 6 and 11 are the ones that cause genital warts in most people.

Human papillomavirus is passed easily between people through skin-to-skin contact.

Diagnosis of genital warts

Your doctor will usually diagnose genital warts simply by looking at them.

Treatment of genital warts

Genital warts can be frozen, 'burned' or cut off by your doctor. There are some medications that can be applied directly to warts that may help them go away.

Genital warts will go away on their own eventually, even if they're not treated.

There is a vaccine available to prevent infection by the 9 types of human papillomavirus most associated with disease in humans, including types 6 and 11. The vaccination doesn't treat an existing infection, so it must be given before you're exposed to the virus to be effective.

In Australia, the vaccination is available free as part of the National Immunisation Program and is recommended for:

- All adolescents aged 9-18 years
- People with poor immune function
- Men who have sex with men.

Health effects of genital warts

Genital warts are usually transmitted by sexual activity, so if you have them, there is the risk of having another sexually transmitted infection.

Most wart virus infections are harmless, but a few types can cause serious health conditions. It's possible for genital warts to go away and then reappear.

It's also possible to be infected by human papillomavirus without having genital warts, and the infection can last for years. This means it's possible for you or a sexual partner to be infected and to infect others without realising it. You might also pass the infection back and forth between you both. Using condoms makes it less likely to pass on human papillomavirus infection but does not prevent it completely.

Some types of human papillomavirus can cause cancer. The types of human papillomavirus that most commonly cause genital warts are not the same ones that usually cause cancers of the reproductive system in males and females. However, the incidence of some cancers seems higher in people who have had genital warts than those who haven't.

What to do about genital warts

If you think you have genital warts, you should see your doctor. You should also tell your sexual partner(s) because they might be infected.

Gynecomastia

What is gynecomastia?

Gynecomastia, sometimes referred to as 'man boobs', is when male breast tissue grows larger than usual, resulting in a rubbery mass around and behind the nipple. Usually, gynecomastia occurs on both sides of the chest.

Pseudogynecomastia can look similar to gynecomastia but is caused by an increase in the amount of fat in the chest, rather than breast tissue.

Gynecomastia is common in babies, with up to 9 in 10 newborn baby boys having the condition, usually for about one month after birth.

Around 1 in 2 boys develop gynecomastia for a while during puberty, and as many as 2 out of 3 men aged over 50 may also have the condition.

Symptoms of gynecomastia

As well as breast tissue growth, the breast tissue itself can be tender for some people with gynecomastia.

Causes of gynecomastia

Gynecomastia is caused by oestrogens (hormones in the body that promote female characteristics in the body) acting on breast tissue cells. Things that promote the levels or action of oestrogens, or decrease testosterone (a hormone that promotes male characteristics in the body) levels or activity, can cause gynecomastia.

Gynecomastia in newborn baby boys can be due to the transfer of oestrogens from their mothers during pregnancy, or an adjustment in the balance of their hormone levels after birth.

Changes in the balance of oestrogens and testosterone during puberty are a common cause of gynecomastia in adolescent males.

As some men age, their testosterone levels can decline, resulting in greater oestrogen effects.

Although most cases of gynecomastia are normal variations in anatomy, it can also be caused by:

- Some genetic conditions or diseases
- Some medications or other drugs
- The use of some dietary supplements or traditional or complementary medicines.

For 1 in 4 men with gynecomastia, the cause is unknown.

Diagnosis of gynecomastia

Your doctor will usually be able to diagnose gynecomastia by performing an examination.

Based on your medical history and the results of an examination, your doctor might need to order some tests to find the cause of your gynecomastia or to rule out other

conditions that can alter your breast tissue. These tests might include ultrasound, X-ray or blood tests.

Treatment of gynaecomastia

Since most cases of gynaecomastia are normal variations in your anatomy and are likely to resolve on their own (especially for babies and adolescents), treatment is often unnecessary.

If your gynaecomastia is due to drugs, another health condition or some other cause, your doctor might suggest you make changes to make your gynaecomastia go away. These changes can include:

- Lifestyle changes
- Switching medications
- Treating an underlying disease.

Surgery is possible to remove breast tissue for cosmetic reasons but is not often required.

If you're bothered by the appearance of your gynaecomastia, wearing a tight top underneath your shirt can make it less obvious.

Health effects of gynaecomastia

If you have gynaecomastia, it might be a sign of disease or the need for you to make some changes to your lifestyle.

Gynaecomastia doesn't increase the risk of breast cancer in men (although the prevalence of gynaecomastia and breast cancer is higher in men with Klinefelter syndrome).

Although gynaecomastia is common, some people feel embarrassed or anxious about their chest. It can help to talk to family, friends, and partners, or to a psychologist or counsellor if you're feeling upset.

What to do about gynaecomastia

Gynaecomastia in babies and adolescents usually goes away on its own, so if it doesn't, you should ask your doctor about it.

If you notice any changes around or behind your nipples, it's a good idea to ask your doctor to check it out to make sure it's nothing to worry about.

Many men with gynaecomastia aren't bothered by it, but it's worth asking your doctor to monitor it because any changes might be a sign of something else.

Hair loss

What is hair loss?

Male pattern hair loss (also known as androgenetic alopecia) is the most common cause of gradual hair loss, resulting in balding.

Hair loss typically occurs at the front and sides of the head, and in the middle towards the back of the head.

Androgenic alopecia affects about half of all Caucasian men and is a normal part of aging. It's more common as you get older (for example, approximately 20% of men aged 20 years and 60% of men aged 60 years have some hair loss). It's less common in men from non-Caucasian backgrounds.

Causes of hair loss

Hair loss in men, commonly referred to as 'going bald', is the result of testosterone affecting the hair follicles of the head.

Hair follicles go through cycles of growth when the hairs get longer, followed by a period of rest and then shedding of the hair.

Cells in the hair follicles convert testosterone to dihydrotestosterone (DHT), which acts on the hair-producing cells to shorten the growth phase. This results in the follicles shrinking and producing progressively shorter and thinner hairs until they stop producing hair altogether.

Follicles in different parts of the scalp have different sensitivities to testosterone, which accounts for the usual pattern of hair loss.

Male hair loss runs in families. If your father is bald, or if your mother's father (your maternal grandfather) is bald, you are more likely to go bald than someone whose father and maternal grandfather had full heads of hair. If your father and maternal grandfather both have hair loss, the likelihood you will go bald is greater than if only one of them had hair loss.

There are many genes that contribute to androgenic alopecia that you may inherit from your mother or father, or both.

Treatment of hair loss

There are a number of ways to treat hair loss in men, including medication.

Minoxidil is a medication that's applied directly to the scalp and works by increasing blood flow to the hair follicles. It must be applied twice daily and when you stop using it, hair loss will resume.

Finasteride is a medication taken in tablet form that prevents the conversion of testosterone to DHT.

Lowering DHT levels in the body reduces its effect on hair follicles.

Finasteride has a number of side effects, some severe, including:

- Anxiety

- Depression
- Suicidal thoughts
- Headache
- Reduced libido
- Erectile dysfunction
- Gynaecomastia.

These side effects can continue even after you stop using finasteride, so it's important to talk to your doctor if you're considering this treatment.

Like for minoxidil, if you stop using finasteride, hair loss will continue.

A combination of minoxidil and finasteride treatments seems more effective than either treatment alone.

Hair transplantation is a satisfactory treatment for the majority of men who have it that effectively reverses hair loss.

Wearing a toupee or wig to cover hair loss is satisfactory for some men.

Laser therapy, microinjection, prostaglandins, valproic acid, saw palmetto extract, and the use of platelet-rich plasma are emerging treatments for androgenic alopecia, but there's not a lot of evidence to support their use.

Health effects of hair loss

It's not possible to predict if you'll experience hair loss, or what the extent of your hair loss will be if it occurs.

Hair loss can cause a lack of self-confidence and self-esteem and depression in some men, particularly those affected at a young age. For these reasons, treatment can be beneficial for some men, but the number of men who seek treatment is relatively low.

What to do about hair loss

If you're concerned about hair loss, speak to your doctor to find a way of dealing with it that suits you.

Klinefelter syndrome

What is Klinefelter syndrome?

Klinefelter syndrome refers to a collection of characteristics in males that are caused by having two or more X chromosomes.

The collection of chromosomes in an organism's cells is known as its karyotype. The usual human karyotype is made up of 22 pairs of chromosomes called autosomes (which are the same in males and females) and a pair of sex chromosomes (resulting in a total of 46 chromosomes). Normally, women have 44 autosomes and two X chromosomes (denoted 46,XX) and men have 44 autosomes and one X and one Y chromosome (46,XY).

The most common karyotype associated with Klinefelter syndrome is 47,XXY, which occurs in 80-90% of males with the condition. This is why the condition is sometimes referred to as 'XXY syndrome'.

The number of males with Klinefelter syndrome is not known. About 1 in 100 male human embryos are 47,XXY, and 1-2 in 1000 newborn baby boys are diagnosed with the condition.

Symptoms of Klinefelter syndrome

The effects of Klinefelter syndrome vary between males with the condition. Symptoms of Klinefelter syndrome can be so mild in some individuals that they, their parents, and their doctors may not even realise they have the condition.

Severely affected baby boys may be born with:

- Undescended testes
- A smaller-than-normal penis
- Hypospadias.

Symptoms in childhood include:

- Small testicles
- Long legs and tall stature
- More body fat than normal
- Difficulties with speaking, learning, behavior, and socialising.

Boys with Klinefelter syndrome might start puberty but then it stops. They may have:

- Signs of low testosterone, such as gynaecomastia (the growth of breast tissue)
- Reduced growth of the testes and penis
- A less masculine appearance (e.g. reduced facial and body hair growth, reduced muscle and bone development).

The effects of Klinefelter syndrome observed in children continue into adulthood.

For some men with Klinefelter syndrome, the condition goes undiagnosed until they try to start a family. This is because even for those with mild symptoms, most men with Klinefelter syndrome produce very few or no sperm and are infertile.

Causes of Klinefelter syndrome

Even though Klinefelter syndrome is a genetic condition, it's not inherited. Rather, it

results from failure of the sex chromosomes to separate during egg or sperm development.

The symptoms of Klinefelter syndrome stem from a lower-than-normal production of testosterone, and the effects the extra X chromosome(s) have on the body's development and function.

Diagnosis of Klinefelter syndrome

Klinefelter syndrome is diagnosed by examining someone's karyotype, which is done using a small sample of blood or other tissue.

Treatment of Klinefelter syndrome

Infants and children with Klinefelter syndrome should be examined by their doctor at least every two years to monitor their physical development. They may need support from specialists to manage any problems with speech, learning, behaviour or psychiatric issues. Testosterone treatment might be prescribed for boys with Klinefelter syndrome who have a very small penis.

Monitoring the growth and hormone function of boys with Klinefelter syndrome in the lead-up to puberty helps guide decisions about testosterone treatment, which may become necessary.

Testosterone treatment is recommended to many adults with Klinefelter syndrome. If you have Klinefelter syndrome and are not receiving testosterone treatment, your hormonal function should be checked every 12 months.

Health effects of Klinefelter syndrome

In addition to its impact on development and fertility, Klinefelter syndrome is associated with many health problems, mainly due to reduced testosterone levels.

Men with Klinefelter syndrome are more likely than men without to have:

- Psychosexual and social problems
- Obesity
- Metabolic disease (e.g. type 2 diabetes)
- Cardiovascular disease
- Some forms of cancer
- Autoimmune disease (e.g. multiple sclerosis, lupus)
- Poor vision
- Dental problems
- Blood clots.

Testosterone treatment to achieve levels like those in men without Klinefelter syndrome minimises the risk of health problems.

If you have Klinefelter syndrome and want to start a family, it might be possible for a fertility specialist to help you by using assisted reproductive technology (ART).

What to do about Klinefelter syndrome

Although there's no cure for Klinefelter syndrome, there are things you can do to minimise the effects of the condition on your health and wellbeing, including:

- Monitoring your health and development
- Seeking appropriate care if necessary
- Maintaining a normal testosterone level.

Similarly, if you're a man with symptoms of Klinefelter syndrome, an accurate diagnosis and ongoing specialist treatment managed by your doctor can help.

If you're a parent of a child with symptoms of Klinefelter syndrome, a confirmed diagnosis will allow doctors to provide care that achieves the best possible outcomes for your child's health and wellbeing.

Lichen Sclerosis

What is lichen sclerosis?

Lichen sclerosis in men, also known as balanitis xerotica obliterans (or BXO), is a skin disorder characterised by white patches on the head and foreskin of the penis.

Lichen sclerosis affects around 1 in 250-1000 boys (average age of 7 years) and up to around 1 in 1000 men.

Symptoms of lichen sclerosis

If you have lichen sclerosis, you might not have any symptoms, or you might experience:

- Altered sensation in your penis
- Itchiness
- Pain during urination.

Usually, the end of the foreskin is white and hardened, which can lead to phimosis or paraphimosis.

Causes of lichen sclerosis

Lichen sclerosis is usually caused by long-term irritation and inflammation of the foreskin and head of the penis. Over time, the irritation and inflammation can lead to accumulation of scar tissue¹.

Like balanitis and balanoposthitis, lichen sclerosis occurs more commonly in males who are uncircumcised. This suggests that the collection of skin secretions and cells (smegma) between the foreskin and the head of the penis can lead to the irritation and inflammation that start the disease.

In uncircumcised males, urine can become trapped between the foreskin and head of the penis, which may also lead to skin irritation.

Lichen sclerosis is associated with obesity, smoking and cardiovascular disease. There may also be a genetic component to the risk of lichen sclerosis.

Diagnosis of lichen sclerosis

Lichen sclerosis is usually diagnosed based on the appearance of your foreskin³. If circumcision is required, the diagnosis may be confirmed by examining the foreskin in a laboratory after surgery.

Treatment of lichen sclerosis

Treatment of lichen sclerosis usually involves the application of steroid cream for two to three months. If this doesn't improve or cure your lichen sclerosis, you may need a biopsy to help with further diagnosis.

Circumcision may be necessary if your lichen sclerosis results in phimosis or

paraphimosis.

Health effects of lichen sclerosis

Lichen sclerosis rarely goes away on its own. If untreated, lichen sclerosis can get worse and cause phimosis, paraphimosis, painful erections and urinary problems that usually require surgery.

Lichen sclerosis is associated with an increased risk of penis cancer, which develops in 4-8% of men who have the disease.

A yearly review by your doctor will be necessary to keep an eye on whether your lichen sclerosis returns or progresses.

What to do about lichen sclerosis

The appearance of white, hardened areas of skin on your foreskin or the head of the penis needs to be assessed by your doctor. If lichen sclerosis is ignored, you can develop serious complications that will affect your sexual and urinary function, and your health more widely.

Low sex drive (low libido)

What is low sex drive?

Decreases in your sex drive are normal when you're feeling unwell or stressed, but a low sex drive for a long time without any obvious reason, or a lack of interest in sex that affects your relationship, can be concerning.

Male hypoactive sexual desire disorder is diagnosed when there is a persistent lack of sex drive, sexual or erotic thoughts or fantasies, or desire for sexual activity that either causes you some level of distress or is impacting your sexual and romantic relationship.

It's important to remember that there's no clinically or scientifically accepted definition of 'normal' when it comes to libido, and male sexual function is not as straightforward as pornography and Hollywood movies would have us believe.

Between 1 in 4 to 1 in 7 men under the age of 60 experience a decrease in their desire for, or interest in, sex at some stage in their life. After 60 years of age, many men experience a decrease in their sex drive.

Symptoms of low sex drive

If you have low libido, you might notice you think about sex less often, don't get turned on as easily as you used to, or feel like you just can't be bothered.

Causes of low sex drive

Low libido can be caused by many things⁴, including:

- Relationship problems
- Medical conditions including hypothyroidism and low levels of testosterone
- Mental health issues such as depression and stress
- Some medications, including many used to treat depression and anxiety
- The use of recreational drugs and alcohol.

Diagnosis of low sex drive

When you see your doctor, it's important that you're open with them about what you're going through.

Your doctor will ask questions about your sexual history and current stress factors in your life, such as your relationships and work. They will also ask you about your physical and mental health. All these questions are so your doctor can help you work out possible reasons why your sex drive might be lower than usual.

For example, depression is a common cause of low libido, so your doctor will want to know how you're feeling.

Treatment of low sex drive

If your doctor thinks your libido is being affected by other health conditions, treating

those will be the first step.

Counselling, either individually or with your partner, might be suggested if psychological or relationship factors might be causing your low sex drive.

Testosterone treatment can be effective for treating low libido in men whose testosterone levels are low, but there is no evidence that testosterone treatment can increase libido in men whose testosterone levels are normal.

There are no medications that specifically treat low libido.

Health effects of low sex drive

Having a low sex drive might be a sign of physical or mental health issues, so it's important to talk to your doctor about what you're experiencing, and your physical and mental health history. This may include discussing any history of trauma.

What to do about low sex drive

Talking to your doctor can help you understand the reasons for your low sex drive and find ways to deal with it. Your sexual relationship with your partner might be affected if you have low sex drive, so seeking help might be good for them as well as you.

Male infertility

What is male infertility?

A couple is considered infertile if they have been unable to get pregnant after one year of frequent unprotected sexual intercourse. Male infertility is used to classify infertility when the female partner is known to be fertile.

How common is male infertility?

Infertility is estimated to affect 8-9% of males and about 15% of couples in Australia.

It's generally accepted that for those couples who are infertile:

- In about 1 in 5 cases, male infertility alone is the cause
- In about 1 in 3 cases, female infertility is the cause
- In more than 1 in 3 cases, both male and female factors are involved.

The numbers above are based on old data, and we don't know the exact prevalence of male infertility or the proportion of couples' infertility attributable to the male partner.

We do know that about half of the couples who don't achieve pregnancy after 12 months of trying do manage to naturally achieve pregnancy in the following year, and about 1 in 7 do so in the year after.

Causes of male infertility

Male infertility usually results from problems with spermatogenesis. This can be due to hormonal problems, poor function of the testicles or blockages in the male urogenital tract.

Sperm production in the testicles can be reduced by:

- Genetic conditions like Klinefelter syndrome
- Varicocele
- Testicular inflammation or injury
- Severe illness
- Undescended testes
- Abnormal hormonal function due to genetics, infection, a cancerous or non-cancerous tumour, or as a consequence of surgery
- Testosterone therapy
- Anabolic steroid misuse or abuse
- Opiate use
- Obesity
- Some medications.

The way sperm function can be impaired by:

- Genetic factors
- Age
- Infection or inflammation in the urogenital tract, which can be caused by sexually transmitted bacteria like chlamydia or other microbes.

Abnormalities that result in some parts of the male reproductive system not developing

at all, such as in men with congenital bilateral absence of the vas deferens, can prevent the transport of sperm. Other men may have blockages in their reproductive system because of scarring or accidental injury during surgery or for unknown reasons. Ejaculation problems and erectile dysfunction can be causes of male infertility. Lifestyle factors such as alcohol and tobacco use can contribute to infertility, as can participating in high-intensity sports or activities that might expose your testicles to high temperatures (like saunas or occupational exposures).

Diagnosis of male infertility

To work out the cause of your infertility, your doctor will usually order a semen analysis or blood test to measure your hormone levels. They might test for infections, or send you to get an ultrasound to look at the structure of your testicles and other scrotal contents. In some cases, a testicular biopsy might be needed for diagnosis.

Treatment of male infertility

The way male infertility is treated depends on its cause.

If your infertility is caused by some aspect of your lifestyle, your doctor can support you to change your behaviour. If medication for a medical condition might be contributing to your infertility, they can also find alternative treatments.

Your doctor might prescribe hormonal treatment or other medications to treat your infertility.

Surgical procedures can be performed to repair varicocele or obstructions of the urogenital tract if these are the cause of your infertility.

If treatment of your infertility is unsuccessful, assisted reproductive technologies (ART) may help you and your partner conceive.

Health effects of male infertility

Male infertility is associated with testicular cancer and poor health arising from various chronic diseases, including diabetes, heart disease and depression⁶. Infertile men also have a higher risk of dying than fertile men. These associations do not mean that every infertile man will develop disease or die early, but they are a reminder to take care of yourself and visit your doctor if you have any concerns about your health.

If you and your partner have been trying to conceive for a year or more but haven't, you should both visit your doctor(s). It's possible that you might still conceive naturally, but beginning investigations earlier, rather than later, is best. Men's and women's fertility both decline with age.

Fertility problems can be a source of considerable stress for both partners, so you might want to talk to your doctor about couple's counselling so you and your partner can best support each other.

Some fertility services focus more on females than the couple but the fertility of both partners should be investigated from the outset.

Male reproductive system

What is the male reproductive system?

The male reproductive system is a collection of organs, glands and other body structures and tissues that regulate body development and function, sexuality and fertility.

Components of the male reproductive system

The brain

The hypothalamus is an almond-sized region at the base of the brain that regulates body function by receiving information from the brain and sending messages to the endocrine system (the system of glands, hormones and tissues that regulate function of the body).

Many other parts of the brain are involved in sexual arousal and orgasm.

The pituitary gland

The pituitary is a coffee bean-sized gland that sits below the hypothalamus. The hypothalamus and pituitary are connected by a stalk of tissue containing blood vessels that carry hormones from the hypothalamus to the pituitary.

The testes (testicles)

The testes are two egg-shaped organs located in the left and right sides of the scrotum, below the base of the penis, outside the abdomen.

The testes are where sperm come from and where testosterone is produced.

The epididymides

There are two epididymides, which sit slightly above and behind the testes.

The epididymis is a tube that is connected to the seminiferous tubules of the testis. The epididymis contains immature sperm from the testis (testicle).

The vas deferentia

There are two vas deferentia, tubes about 2-3 mm thick, which extend from the tails of the epididymis to the prostate gland.

Each vas deferens carries sperm from the tail of the epididymis towards the prostate gland.

The seminal vesicles

There are two seminal vesicles, each about 5 cm long, which sit behind and below the urinary bladder, on the left and right.

Each seminal vesicle connects to the vas deferens as it enters the prostate gland.

The seminal vesicles make around 60% of the seminal fluid and release it into the ejaculatory ducts.

The prostate gland

The prostate is a muscular gland, about the size of a walnut, located immediately below the urinary bladder.

The prostate makes fluid that contributes about one-third of the volume of semen.

The ejaculatory ducts

The ejaculatory ducts carry semen (sperm and seminal fluid) from the seminal vesicles to

the urethra, within the prostate gland.

The urethra

The urethra is a tube that extends from the base of the bladder to the tip of the penis.

The urethra carries urine from the bladder and semen from the prostate.

Bulbourethral glands

There are two bulbourethral glands, about the size of peas, located to the left and right sides of the urethra, below the prostate gland at the base of the penis.

The bulbourethral glands make pre-ejaculate fluid, which they release into the urethra.

The bulbourethral glands are also known as Cowper's glands.

The penis

The penis contains two 'tubes' of erectile tissue, the corpora cavernosa, and a spongy tube of corpus spongiosum.

The glans (head) is positioned at the end of the penis and surrounds the urethral opening.

The glans is covered by the foreskin, a sheath of skin that protects the glans.

The scrotum

The scrotum is a pouch of skin under the base of the penis that contains the testes, epididymides and the first part of the vas deferentia.

Your scrotum allows your testes to be cooler than your core body temperature, which is necessary for normal sperm development.

Sperm

- Mature male sex cells.

Semen

- Fluid that is ejaculated from the penis during sexual activity; contains sperm and other fluids from the testes, prostate and seminal vesicles.

How is the male reproductive system regulated?

Successful function of the male reproductive system requires an appropriate level of testosterone and production of sperm.

- The brain: To regulate reproduction, the hypothalamus makes gonadotropin-releasing hormone (GnRH), which acts on the pituitary gland.
- The pituitary gland: Under the control of GnRH from the hypothalamus, the pituitary releases follicle-stimulating hormone (FSH) and luteinizing hormone (LH) into the bloodstream.
- The testes: FSH acts on the Sertoli cells in the seminiferous tubules in the testes (together with testosterone) to stimulate production of sperm. The Sertoli cells of the testes make and secrete a hormone called inhibin. LH stimulates production of testosterone in the Leydig cells of the testes, which acts on Sertoli cells within the testes to support sperm production and enters the bloodstream for transport throughout the body.
- Feedback mechanisms: The outputs of the male reproductive system (testosterone and spermatogenesis) feedback to the brain and pituitary gland to regulate their own levels.

Health effects of the male reproductive system

Problems can occur with every part of the male reproductive system, and if something goes wrong in one part, it may affect function in another. For example, both depression (in the brain) and low testosterone production (by the testes) can affect the erectile function of the penis.

Parts of the body that are not parts of the reproductive system can be affected by abnormal reproductive system function. For example, if testosterone production by the testes is low, your mood and libido can be low, and your bones can lose strength.

Diseases that occur in parts of the body that are not part of the reproductive system can also affect reproductive function. As examples, cardiovascular disease can affect erectile function and diabetes can affect your testosterone levels.

Male reproductive system

What is the male reproductive system?

The male reproductive system is a collection of organs, glands and other body structures and tissues that regulate body development and function, sexuality and fertility.

Components of the male reproductive system

The brain

The hypothalamus is an almond-sized region at the base of the brain that regulates body function by receiving information from the brain and sending messages to the endocrine system (the system of glands, hormones and tissues that regulate function of the body).

Many other parts of the brain are involved in sexual arousal and orgasm.

The pituitary gland

The pituitary is a coffee bean-sized gland that sits below the hypothalamus. The hypothalamus and pituitary are connected by a stalk of tissue containing blood vessels that carry hormones from the hypothalamus to the pituitary.

The testes (testicles)

The testes are two egg-shaped organs located in the left and right sides of the scrotum, below the base of the penis, outside the abdomen.

The testes are where sperm come from and where testosterone is produced.

The epididymides

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Molluscum Contagiosum

What is molluscum contagiosum?

Molluscum contagiosum is a skin condition caused by the molluscum contagiosum virus, which usually results in a collection of up to 30 small (2-5 mm) dome-shaped bumps on the skin. The bumps can be pale white or have a yellow or pink colour and have a 'dimple' or 'pit' in the middle.

In people with poor immune function (e.g. on immunotherapy or have lupus, HIV infection or cancer), there might be many more spots spread widely on the body, or the spots can join up to form very large lesions¹.

Molluscum contagiosum affects about 1 in 50 Australians. Infection of the skin of and around the genitals is most common in young, sexually active people.

Molluscum contagiosum is among the top 50 causes of disease worldwide, affecting over 122 million people annually.

Symptoms of molluscum contagiosum

Molluscum contagiosum typically results in spots on the face, neck, body and arms of children, as a result of direct contact.

In adults, molluscum contagiosum usually occurs on the genitals and surrounding areas following skin-to-skin contact during sex. The spots are usually painless but can be itchy.

Causes of molluscum contagiosum

The molluscum contagiosum virus is transmitted between people through direct contact or transfer from shared towels or other items used while bathing or swimming².

Scratching the lesions can infect nearby skin, causing the bumps to spread.

Diagnosis of molluscum contagiosum

Your doctor will usually diagnose molluscum contagiosum based on how the spots look and your answers to their questions.

Treatment of molluscum contagiosum

Molluscum contagiosum will go away on its own, but it takes about 6-12 months.

Molluscum contagiosum spots can be frozen, 'burned' or cut off by your doctor, but these treatments are painful and spots can reappear, requiring more than one treatment. There are treatments you can apply directly to the spots (e.g. hydrogen peroxide, iodine, tea tree oil, imiquimod cream), but there isn't good evidence they are effective¹.

Health effects of molluscum contagiosum

While you have molluscum contagiosum, you need to prevent passing it on to other people and spreading it to other parts of your body. This means you should keep the spots covered and not share towels or other items that contact the affected skin.

Using condoms during sexual contact doesn't prevent the spread of molluscum contagiosum.

An immune reaction to molluscum contagiosum can lead to redness around the spots and the spots themselves becoming scaly. This condition, called molluscum dermatitis, leads to the spots going away.

What to do about molluscum contagiosum

If you notice any spots or lumps on your genitals, see your doctor so they can make an accurate diagnosis and rule out anything serious.

It's a good idea to get checked for other sexually transmitted diseases if you have molluscum contagiosum on or around your genitals.

You should also:

- Let any sexual partners know so they can get checked
- Avoid rubbing or scratching the spots because it might cause them to spread
- Cover the spots to avoid contact with other people.

Orchitis

What is orchitis?

Orchitis is inflammation of the testis (testicle) or testes (testicles).

Orchitis doesn't often occur alone it's usually accompanied by inflammation of the epididymis (epididymo-orchitis). Epididymo-orchitis is a common cause of pain and swelling in the scrotum.

Two or three out of every 10 men who get mumps develop orchitis.

Symptoms of orchitis

Orchitis is painful and can be accompanied by swelling and redness. The pain usually comes on quickly.

Causes of orchitis

Orchitis on its own, without inflammation of the epididymis, is most often caused by viral infection that reaches the testes through the bloodstream. The mumps virus is the most common of these infections.

Epididymo-orchitis is usually caused by bacterial infections. In adolescent males and young men, sexually transmitted infections (STIs) by the bacteria that cause gonorrhoea or chlamydia are the most common cause. In boys and older men, bacteria that usually cause urinary tract infections are the most common cause.

Diagnosis of orchitis

Your doctor can diagnose orchitis and epididymo-orchitis by examining you. It's important to rule out other causes of testicular pain, especially testicular torsion. Your doctor might order an ultrasound scan to rule out testicular torsion.

Your doctor might analyse your urine or order a blood test to work out what type of infection might be causing your orchitis.

Treatment of orchitis

The usual treatment for orchitis is pain relief and rest.

If you have a bacterial infection, your doctor will probably prescribe antibiotics.

Health effects of orchitis

Orchitis can affect the function of the affected testis, so changes in your testosterone levels or sperm production can occur for a while.

If your orchitis (or epididymo-orchitis) is caused by an STI (e.g. chlamydia, gonorrhoea), you should be tested for other possible STIs. Your sexual partner(s) should also be tested.

If your orchitis is caused by mumps, your affected testis (or testes) can become smaller

because of damage from the infection and inflammation. There may also be an effect on your fertility. This is why it's important to be vaccinated against mumps.

What to do about orchitis

See a doctor immediately if you have a sudden onset of pain in your scrotum. If the pain is due to testicular torsion, surgery will be needed straight away.

There's not much you can do to treat orchitis in many cases, but your doctor can help you find a treatable cause if there is one.

Osteoporosis

What is osteoporosis?

Osteoporosis is a condition that affects the strength and quality of bones, resulting in them becoming weaker and more likely to break.

About 1 in 16 Australian men aged over 50 has osteoporosis. Of those, 1 in 4 will break a bone because of osteoporosis.

Symptoms of osteoporosis

About half of Australian men with osteoporosis don't know they have the disease. This is because osteoporosis usually has no symptoms, unless it's severe and causes a fracture (broken bone).

If the changes in your vertebral (spinal) bone structure that cause osteoporosis are severe enough, there can be a noticeable curve in your spine or reductions in your height.

Causes of osteoporosis

Osteoporosis is caused by changes in the structure of your bones, which makes them weaker, increasing the chance of a fracture.

Normal healthy bones are constantly regenerating, with old bone removed and new bone added. During childhood, bones become stronger and denser because new bone forms faster than old bone is removed.

Bone mineral density in males increases during puberty because testosterone stimulates bone growth and increases the amount of calcium added to bones. Bone mineral density in males reaches a peak in their early 20s, and then slowly declines with age.

If your peak bone mineral density in your 20s is low, you have a medical condition or take medication that affects your bone health, your risk of getting osteoporosis is higher than normal. In older adults, bone formation slows and bone may be lost faster than it's made. In half of men with osteoporosis, the disease occurs because of other health conditions, including:

- Low testosterone levels
- Poor absorption of calcium from food
- Excessive alcohol consumption
- Diabetes.

It can also be caused by medicines used to treat health conditions, including:

- Prednisolone for inflammatory conditions
- Some medications to treat epilepsy
- Some treatments for prostate cancer.

In men without these risk factors, osteoporosis is due to the gradual decline in bone mineral density that occurs with age (in men over 70), or for unknown reasons (in men under 70), probably related to undiagnosed causes.

Osteoporosis can run in the family.

Diagnosis of osteoporosis

Osteoporosis is diagnosed by performing a DEXA (dual-energy X-ray absorptiometry) scan to measure your bone mineral density. It may also be first picked up on an X-ray if you have back pain or break a bone from only a minor trauma.

Your doctor might ask about your diet and activity, review your medications or order blood tests to help them understand the reason for your osteoporosis.

Your doctor can use your bone mineral density measurement and other details about your health to calculate your risk of breaking a bone. If your risk is high enough, they may suggest treatment.

Treatment of osteoporosis

If you don't already have a balanced diet with enough protein and calcium, or if you drink too much alcohol or smoke, making changes will help with managing your osteoporosis. Regular physical activity will also help. Your doctor might refer you to a physiotherapist or exercise physiologist to help you strengthen your bones and muscles and improve your balance.

If you have osteoporosis and your calcium intake and vitamin D levels are low, taking calcium or vitamin D supplements can reduce your risk of breaking a bone. Always chat to your doctor before taking any supplements because calcium supplements are not necessary if your diet is adequate.

There are a few different types of drugs that are used to treat osteoporosis. Your doctor will advise which is most suitable for you.

If your osteoporosis is due to another health condition, treating the other disease may be beneficial for your bone health.

If you have osteoporosis, you might need to make changes to your home or alter your daily activities to reduce your risk of falling and avoid breaking bones.

Health effects of osteoporosis

Osteoporosis can have a significant effect on your health and wellbeing.

In men who break a bone because of osteoporosis, around 1 in 10 die before they get out of hospital⁵, and up to 2 in 5 will die within a year.

Some treatments for osteoporosis can have side effects that require regular monitoring of your health. Your doctor might recommend taking a break from taking your medication to minimise the likelihood of some unwanted side effects.

What to do about osteoporosis

There are a number of things you can do to lower your risk of osteoporosis and improve your bone health, including:

- Eating a balanced diet with enough calcium and vitamin D
- Exercising regularly
- Avoiding smoking and drinking too much alcohol.

If you have osteoporosis, it's important to follow your doctor's advice and take your medications as prescribed.

You should also speak to them about the types of activity and exercises that can be useful for managing your osteoporosis.

Painful ejaculation

What is painful ejaculation?

Pain after ejaculation usually comes from the parts of your body that are involved in ejaculation of semen (the prostate, testicles, epididymis, vas deferens, seminal vesicles, ejaculatory duct, bulbourethral glands, and/or penis).

We think painful ejaculation affects somewhere between 1 in 10 and 1 in 100 men, but the true incidence is unknown because some men affected by it probably don't mention it or seek help.

Some conditions increase your likelihood of experiencing painful ejaculation. Rates of painful ejaculation are between 1 in 3 to 1 in 10 in men who have lower urinary tract symptoms (LUTS), and the worse their symptoms, the more likely they are to have pain. About 1 in 5 men with benign prostatic hyperplasia (BPH), and more than 1 in 2 with prostatitis, have painful ejaculation¹. Rates are highest in men with chronic pelvic pain syndrome (up to 75%).

Painful ejaculation affects about 1 in 5 men who have had prostate surgery.

Causes of painful ejaculation

Painful ejaculation can be caused by:

- Prostatitis
- Nerve and muscle pain
- Stones blocking the ejaculatory duct
- The effects of surgery or radiotherapy
- Some sexually transmitted infections
- The use of antidepressants.

There may be a psychological cause of painful ejaculation for some men.

Treatment of painful ejaculation

There are medications available to treat painful ejaculation.

Surgical or transurethral procedures to remove stones blocking the ejaculatory duct can effectively relieve symptoms if such a blockage is the cause of your painful ejaculation.

If nerve irritation is the cause of your painful ejaculation, minimising the time you spend sitting might help.

Your doctor can help you to work out what's causing your painful ejaculations and find a treatment that suits you.

Health effects of painful ejaculation

About 90% of men with painful ejaculation consider it to be a serious problem¹.

If treatment of your painful ejaculation is not effective, you should discuss further options with your doctor. Painful ejaculation may go away by itself after one to two years, but

that's a long time to wait for something that might seriously affect your wellbeing.

What to do about painful ejaculation

It's unlikely there's anything you can do without the help of your doctor to relieve your painful ejaculation, so your best course of action is to make an appointment to see them as soon as possible.

Pearly penile papules

What are pearly penile papules?

Pearly penile papules are painless, dome-shaped bumps that usually occur in one or more rows along the corona (the rounded border where the head of the penis meets the shaft). They can be flesh-coloured or white, and can look like small pimples or skin tags. Pearly penile papules are common types of bumps that occur on the penis, affecting between 1 in 7 to almost half of all men.

Causes of pearly penile papules

We don't know why some men have pearly penile papules while others don't. They are less common in men who are circumcised than those who are not.

Pearly penile papules usually appear towards the end of puberty and become less common with aging.

Diagnosis of pearly penile papules

Your doctor will usually diagnose pearly penile papules simply by looking at them or by using a dermatoscope. They may also collect a small skin sample for examination to be sure of the diagnosis.

Treatment of pearly penile papules

Pearly penile papules don't need treatment because they're a normal part of male anatomy. Even so, some men with pearly penile papules are bothered by them and would prefer to have them removed.

If you're embarrassed by your pearly penile papules, it's possible to have them removed by freezing them with liquid nitrogen or having laser therapy. There's a risk of scarring or a change in skin colour, and it takes about two weeks for your penis to heal after laser treatment.

Health effects of pearly penile papules

There are no physical health problems associated with pearly penile papules because they're a normal part of some people's anatomy.

Pearly penile papules can cause unnecessary concern for people who have them or for their sexual partners, who may confuse them as a sign of sexually transmitted infection.

What to do about pearly penile papules

If you're concerned about any lumps, bumps or spots on your penis, it's a good idea to talk to your doctor about it. A quick examination can reassure you there's nothing to worry about and will allow your doctor to rule out anything serious.

Penile cancer

What is penile cancer?

Penile cancer can occur on the foreskin, the glans (head) or shaft of the penis.

There are a few different types of cancer that can affect the penis, which may need different treatments.

Penile cancer is diagnosed in 1 in 125,000 Australian men each year. Most cases (more than 95%) are squamous cell carcinomas (a type of skin cancer that affects the outer layer of the skin (the epidermis), which can be easily cured if caught early.

Most cases of penile cancer occur in older males.

Symptoms of penile cancer

Signs of penile cancer can include:

- A lump or sore on the foreskin, glans or shaft of the penis that doesn't go away after two weeks
- Bleeding from the penis or under the foreskin
- A smelly discharge or hard lump under the foreskin
- Changes in the colour or thickness of the skin of the penis or foreskin
- Pain or swelling of the glans of the penis
- Pain in the shaft of the penis.

Causes of penile cancer

Abnormal development of cells in the foreskin, glans or shaft of the penis can form a cancerous tumour that can spread to other parts of the body.

The cause of penile cancer in individual men is often unknown, but some things are known to increase the risk of penile cancer, including:

- Phimosis
- Long-term balanoposthitis
- Poor hygiene
- Number of sexual partners
- Smoking
- Ultraviolet (UV) light exposure.

Diagnosis of penile cancer

Your doctor will ask you some questions, perform an examination and refer you for some tests to diagnose penile cancer. You might need a blood test, collection of a tissue sample (biopsy) or scan.

Treatment of penile cancer

If you're diagnosed with penile cancer, your doctor will refer you to a urologist as a first

step.

Surgery, radiation therapy and chemotherapy may be used to treat penile cancer, depending on the type and stage of the cancer.

Prevention of penile cancer

You can prevent your risk of penile cancer by:

- Practising good personal hygiene
- Getting vaccinated against human papillomavirus (HPV)
- Not smoking
- Avoiding UV exposure
- Getting treatment for inflammation that affects the genitals.

Circumcision in childhood or adolescence may reduce the risk of penile cancer by preventing foreskin problems that can occur if you don't practise good hygiene.

Health effects of penile cancer

Eight out of every 10 cases of penile cancer are curable but there may be long-term effects on quality of life and sexual function.

What to do about penile cancer

If you notice any changes to the skin of your penis or experience any penile pain, you should see your doctor. The sooner you seek help, the earlier you can be diagnosed and start treatment.

Penis lumps

What does it mean if I have a lump on my penis?

There are many different types of lumps and bumps that might appear on your penis. Sometimes, a sebaceous gland (these are small glands in the skin that secrete oil to protect it) can get blocked and cause a small cyst or pimple on your penis, which will go away on its own after a couple of days. If a cyst or pimple on your penis becomes painful or swollen you should see your doctor about it.

Ulcers or open sores on your penis, that leak clear fluid or pus, may be caused by sexually transmitted infections or cancer. Any ulcer or open sore on your penis should be examined by a doctor as soon as possible.

Just like for any other part of your body, if you notice anything unusual about the appearance of your penis, or if you experience any pain, you should make an appointment to see your doctor.

For more information about different types of penis lumps, visit:

- Fordyce spots
- Genital Warts
- Molluscum contagiosum
- Pearly penile papules
- Penile cancer

What is a penis cyst?

Sometimes, the glands that produce oil on the penis and scrotum (called sebaceous glands) can become blocked, turning into cysts (a tissue sac that can contain clear liquid or pus).

Usually, cysts don't need any treatment. However, if they continue to get larger, they can become painful and infected. If a cyst has become painful or swollen, it's a good idea to talk to your doctor.

What is a penis ulcer?

Ulcers appear as open sores in the skin, often with clear liquid or pus in the centre. A single ulcer on the penis can be serious, as it can be caused by syphilis, tropical diseases, or penis cancer. Single ulcers should be checked by a doctor immediately. Multiple ulcers are more common. Though they're less serious, they should still be checked by a doctor. The herpes virus is the most common cause of multiple penis ulcers.

What is a papule?

Pearly penis papules are painless, dome-shaped bumps that usually occur in one or more rows along the corona (the rounded border where the head of the penis meets the

shaft). They can be flesh-coloured or white, and can look like small pimples or skin tags. Pearly penile papules are a normal part of male anatomy. Even so, some men with pearly penile papules are bothered by them and would prefer to have them removed.

What are genital warts?

Genital warts usually appear as a group of small, raised bumps on the scrotum, or on the shaft or tip of the penis. However, you may also get a single wart. Warts may also appear in or around the anus. Genital warts range in colour and size and may be rounded or flat, smooth or rough.

Genital warts are caused by human papillomavirus and are easily spread through skin-to-skin contact, so it's important to use condoms if you or your partner are infected. Genital warts can be frozen, 'burned' or cut off by your doctor. There are some medications that can be applied directly to warts that may help them go away.

There is a vaccine available to prevent infection by the 9 types of human papillomavirus most associated with disease in humans, and in Australia, it's free as part of the National Immunisation Program. The vaccination doesn't treat an existing infection, so it must be given before you're exposed to the virus to be effective.

Peyronie's Disease

What is Peyronie's disease

Peyronie's disease is a disorder of the connective tissue that surrounds the erectile tissue in the penis. This results in a curve or bend in the penis when it's erect.

Peyronie's disease is different from congenital curvature of the penis, which occurs due to slight differences in growth between different sides of the penis during development. It occurs in around 3% of men, becoming more common with increasing age.

Symptoms of Peyronie's disease

Peyronie's disease has two phases: the active phase and the stable phase.

During the active phase, you'll usually experience pain, often (but not always) after some type of injury to the penis (but not always), and your symptoms may change as curving or bending occurs.

During the stable phase (after three months without changing symptoms), you might not have any pain, but you can usually feel the scar tissue in your penis, and the bend or curve in your penis does not get worse.

Causes of Peyronie's disease

The most likely cause of Peyronie's disease is repeated damage to the penis during sexual activity, although many men do not recall any event before noticing the disease. There are probably some genetic differences in healing processes that contribute to Peyronie's disease in at least some affected men.

Treatment of Peyronie's disease

Surgery is the best way to treat Peyronie's disease.

Collagenase clostridium histolyticum (CCH) is the only approved injected medication for Peyronie's disease, but it is no longer available in Australia.

Oral medications such as vitamin E, colchicine and phosphodiesterase type-5 (PDE5) inhibitors have minimal benefit. Shock wave therapy is still being assessed as a suitable treatment for Peyronie's disease. Traction devices have some benefit in straightening the curvature of the penis in Peyronie's disease.

Health effects of Peyronie's disease

Peyronie's disease is often accompanied by pain and commonly results in problems having intercourse. It has a negative impact on the mental health and sexual relationships of most men with the disease.

If your penis has always had a bit of a curve that doesn't bother you and is not painful, there's no need to do anything.

Dupuytren's contracture, a medical condition that affects the hands, is linked to Peyronie's disease. Diabetes and high blood pressure are associated with Peyronie's disease, but neither of these is likely to have a direct cause-and-effect relationship.

What to do about Peyronie's disease

If you injure your penis and are in pain, you should see your doctor to make sure there's no severe damage.

Even if you don't remember injuring yourself, if you have penis pain (either with or without an erection), you should see your doctor. You should also see your doctor if you notice any changes to the shape of your penis (not just bends and curves, but lumps and bumps too).

Your doctor will probably refer you to a urologist, who will have experience in treating Peyronie's disease. The urologist will perform an examination, might order an ultrasound scan, and will talk to you about treatment options.

Phimosis

What is phimosis

Phimosis is a condition in which the foreskin cannot be retracted over the glans (head) of the penis.

Phimosis may be either physiological, as it is for babies, or pathological, if it causes problems with sexual function or pain or is caused by other health problems.

Paraphimosis is when the foreskin remains retracted from the glans of the penis and cannot be returned to its normal position. Paraphimosis can lead to painful swelling of the foreskin and head of the penis, so if it occurs, you should seek medical help straight away.

Phimosis is normal and present in almost all newborn babies. As boys age, their foreskin becomes progressively easier to retract over the glans.

By adulthood, physiological phimosis affects between 1 in 200 and just over 1 in 8 men. The incidence of pathological phimosis in adult males is unknown but is expected to be high in uncircumcised men.

Symptoms of phimosis

If your foreskin feels tight and is difficult to retract, you may have phimosis. Other symptoms include:

- Ballooning of the foreskin during urination
- Pain when urinating or when you have an erection.

Causes of phimosis

Phimosis in babies and young boys is due to normal development. The foreskin and glans of the penis are fused together as they develop and gradually separate after birth. Scarring of the foreskin from injury, infection, inflammation or skin conditions like lichen sclerosis (balanitis xerotica obliterans), can lead to phimosis.

Phimosis is much more common in men with diabetes than in those without.

Diagnosis of phimosis

Your doctor will need to examine your penis to diagnose phimosis.

Treatment of phimosis

If you or your child has phimosis, gently retracting the foreskin can help resolve the condition.

Steroid creams can be effective for treating phimosis, but if this treatment is not effective or if phimosis recurs, circumcision may be necessary.

Health effects of phimosis

If your phimosis is severe, you may have difficulty urinating, or pain or discomfort when you have an erection. Phimosis increases the risk of balanitis, which might be a result of bacterial or fungal infection. Long-lasting balanitis can also be a cause of phimosis.

The warm, moist environment between the foreskin and the head of the penis can encourage the growth of bacteria and other microorganisms. This is why good hygiene is necessary if you aren't circumcised.

Phimosis increases the risk of penis cancer more than most other associated conditions.

What to do about phimosis

If your child has physiological phimosis with no complications, there's no need to do anything other than practice good hygiene.

If you're experiencing pain or any other problem when urinating or when the penis is erect, it's worth making an appointment with your doctor. Pathological phimosis should be treated to avoid potentially serious complications.

If you have diabetes or other health problems that increase your risk of phimosis, make sure you do your best to stay on top of them

Premature ejaculation

What is premature ejaculation?

There are many different definitions of premature ejaculation. If you regularly ejaculate sooner than you wish, or with minimal stimulation, and it is a problem for you and your partner, you may have premature ejaculation.

Premature ejaculation can be lifelong or acquired. Lifelong premature ejaculation refers to when it is present from someone's first sexual experience. Acquired premature ejaculation develops after previously having a longer, satisfactory time to ejaculation. It might be generalised (occurring in most situations or on most occasions regardless of partner) or situational (only occurring with some types of stimulation or with a particular partner).

Premature ejaculation is the most common sexual problem in the world¹ affecting at least 1 in 3 to 1 in 5 men aged 18-59. However, people are reluctant to talk about the issue so the incidence might be higher.

Symptoms of premature ejaculation

Symptoms of premature ejaculation are different between individuals. Whether your premature ejaculation is lifelong or acquired, generalised or situational, are important considerations that may influence your diagnosis and treatment.

In some men, premature ejaculation occurs along with erectile dysfunction.

Causes of premature ejaculation

The cause of premature ejaculation is not the same for everyone.

Some people may have:

- Genetic causes related to the molecules that signal between nerves
- Psychological causes
- Other health problems (e.g abnormal hormone levels) that may contribute to premature ejaculation.

About 1 in 3 to 1 in 4 men with premature ejaculation also have erectile dysfunction.

Diagnosis of premature ejaculation

There are no specific tests needed to diagnose premature ejaculation, but your doctor might order some tests so they can be sure of the cause.

If you're worried about how quickly you ejaculate during sexual activity, your doctor will ask you some questions to understand your concerns and start to understand the cause or problem.

Your doctor may use a questionnaire (e.g. the Premature Ejaculation Diagnostic Tool) to

help them understand how premature ejaculation is affecting you.

Treatment of premature ejaculation

Treatment for erectile dysfunction depends on what's causing it.

There are a variety of medications that can be used to treat premature ejaculation.

Talking with a psychologist, sex therapist or other mental health professional may help.

Behavioural treatments, like the 'stop-start' and 'squeeze' techniques, are effective for some people.

Masturbation before sexual activity, wearing condoms, pelvic floor exercises and acupuncture might be effective for some people but there isn't a lot of evidence to support their use.

If premature ejaculation is related to erectile dysfunction, treating the erection problem might solve the ejaculation problem.

You might want to involve your sexual partner in discussions about how to manage premature ejaculation because the issue may affect their sexual satisfaction, and there may be things they can do to help.

Health effects of premature ejaculation

Treatment of premature ejaculation is successful in 30-70% of cases.

Lifelong premature ejaculation cannot be cured but it can be managed with ongoing treatment. Acquired premature ejaculation may be cured by successfully treating the underlying issue.

Premature ejaculation can lead to stress, anxiety, erectile dysfunction and problems with your interpersonal relationships. So it's important to seek help.

What to do about premature ejaculation

You should be reassured that premature ejaculation is very common and there are effective treatments that can help.

Your doctor can help you identify the reason for your premature ejaculation and find a suitable treatment, so you should see them if your sexual function is a cause of concern for you.

Priapism (prolonged erection)

What is priapism?

Priapism is a prolonged erection of the penis (lasting more than four hours) that occurs without any type of sexual stimulation.

There are two types of priapism:

- Ischemic (low blood flow) priapism
- Non-ischemic (high blood flow) priapism

Priapism is rare but there are some things that make it more common in some groups of men.

Priapism is thought to occur in about 1 in 100,000 males each year¹. In men who use penile injections to treat erectile dysfunction, the incidence of priapism is about 2 in 100,000. For men with sickle cell disease, 3 to 4 out of 100 will have priapism in their lifetime.

Ischemic priapism is much more common (more than 95% of cases) than non-ischemic priapism (less than 5%).

Symptoms of priapism

Priapism is defined by the presence of a prolonged erection (lasting more than four hours) in the absence of sexual stimulation. This symptom is common to all types of priapism.

In ischemic priapism, the shaft of the penis is very hard but the head of the penis is soft. The condition is usually painful and the pain gets progressively worse.

In non-ischemic priapism, the penile shaft is usually not fully hard.

Causes of priapism

Priapism is caused by abnormal blood flow in the erectile tissue of the penis. When you get aroused, the arteries in your pelvis and penis relax and expand, allowing more blood into the spongy tissue in the penis. The blood then gets trapped under high pressure, creating an erection. When you're no longer aroused, blood flows out of your penis and it returns to a flaccid state.

In ischemic priapism, the flow of blood out of the erectile tissue is impaired, so the blood that flows into the tissue accumulates over time. There may be a variety of causes of the poor blood flow, but often the reason is unknown.

The most common known cause of ischemic priapism is sickle cell disease, which causes abnormal red blood cell shape and function. Use of medications (particularly those used for erectile dysfunction, especially if used with other drugs) or use of recreational or illicit drugs may also play a role in prolonged erections. Rarely, certain cancers, or medical conditions that increase the clotting factors of blood, may increase a person's risk of developing priapism.

Non-ischemic priapism is most commonly caused by a traumatic injury causing damage to the arteries supplying blood to the penis.

Diagnosis of priapism

Your doctor will ask you questions to help them identify the likely cause of priapism, including:

- Your use of medications and drugs
- Other health conditions you may have
- The presence or absence of pain
- If you have sustained an injury that could be responsible.

A physical examination will help your doctor assess the hardness of your priapism, whether the head of your penis is affected, and identify any signs of injury.

Analysis of a blood sample, collected with a needle, can help to work out whether you have ischemic or non-ischemic priapism, but it's not always necessary. Ultrasound imaging to assess blood flow may also be used.

Depending on the possible cause of priapism, other tests might be necessary.

Treatment of priapism

Ischaemic priapism

Ischaemic priapism can result in irreparable damage to the penis from a lack of blood flow, so draining the blood is necessary. Medications taken in tablet form may be the first treatment offered, but they are only effective in about 1 in every 3 or 4 cases. If medication fails, blood can be extracted using a needle and syringe but, on its own, this only works in about one-third of cases.

Standard treatment of ischemic priapism involves withdrawing blood by needle and syringe, followed by injecting a drug to alter penile blood flow. This treatment is effective in 4-8 out of 10 cases.

If these treatments don't relieve ischaemic priapism, surgery is necessary to prevent irreparable damage to the penile tissue. There are several surgical interventions that may be used to shunt blood from the corpus cavernosum into the corpus spongiosum so it can drain from the penis.

If all treatments to relieve ischemic priapism, including surgery, are unsuccessful, the resulting damage to the penile tissue may cause erectile failure in the future. If this occurs, insertion of a penile prosthesis (implant) may be necessary to allow erection.

Non-ischemic priapism

If you have non-ischemic priapism, application of ice packs or compression may be used.

Another treatment for non-ischemic priapism involves blocking the blood vessels that supply blood to the penis. This can provide immediate relief and is effective in about 9 out of 10 cases. However, non-ischemic priapism reoccurs in 3 or 4 out of 10 cases and 1 or 2 out of 10 experience erectile dysfunction as a side effect, so you'll need to talk to your doctor about whether this treatment is appropriate for you.

Treatments used for ischemic priapism are not recommended to treat non-ischemic priapism.

Recurrent ischemic priapism

Rarely, some people may experience recurrent priapism events. There are a number of medical options for treating recurrent ischemic priapism. In men with sickle cell disease, treating the underlying problem with medication or blood transfusions can help.

Health effects of priapism

If you have experienced priapism, your risk of further episodes is increased.

Erectile dysfunction is a common complication of priapism, but the shorter the duration of priapism, the better the outcome. For men with sickle cell disease, reversal of priapism within hours allows erectile function to return in all cases. However, erectile function recovers in only 78% of cases if priapism lasts 12-24 hours, and this drops to 44% if priapism lasts for 24-36 hours. Erectile function does not recover if priapism lasts longer than 36 hours, which is why it's important to seek help immediately.

Complications of surgery for priapism include infection and erectile dysfunction.

Recurrent ischemic priapism may make you reluctant to engage in sexual activity, which can have a negative effect on your mental health, sexual function and intimate relationship(s).

What to do about priapism

You should see your doctor if you have painful erections.

If you have a prolonged painful erection, seek medical help immediately because the sooner you get treatment, the better the outcome.

If you have sickle cell disease, speak with your doctor about what to look out for and how to minimise your chances of priapism.

Prostate cancer

What is prostate cancer?

Prostate cancer means there is a potentially harmful growth of cells in the prostate gland.

Prostate cancer is the most common type of cancer to affect Australian males. There are around 19,500 cases of prostate cancer diagnosed each year in Australia, representing about 1 in every 770 Australian males.

Symptoms of prostate cancer

Prostate cancer doesn't usually cause symptoms, especially in the early stages of the disease.

If symptoms do occur, the most common ones are lower urinary tract symptoms (LUTS), such as a weak urine flow or frequent need to urinate. However, these are also symptoms of benign enlargement of the prostate, so if you have any of these symptoms, it doesn't mean you have prostate cancer.

Symptoms of prostate cancer that has spread commonly include pain in the pelvis, hips, back and ribs.

Causes of prostate cancer

Prostate cancer results from abnormal growth of cells in the prostate gland. These are usually the cells that line the glandular spaces where prostatic fluid is produced. Exactly why cells in the prostate become cancerous is unknown.

A person's genetic makeup contributes to their risk of developing prostate cancer, as shown by higher rates in men with a family history of prostate cancer, some racial and ethnic groups, and those who have specific genes.

The incidence of prostate cancer increases with age. Prostate cancer is very rare in men aged under 40, but the incidence drastically increases with age after 50.

Diagnosis of prostate cancer

Your doctor will perform a digital rectal examination (DRE) and order a blood test to measure your PSA level. Both tests are useful for identifying men at risk of prostate cancer.

If your PSA level is higher than normal, or the DRE reveals an abnormal nodule in your prostate, your doctor will refer you to a urologist for further testing with a prostate MRI. If the MRI shows any areas suspicious for cancer, you'll be sent for a prostate biopsy.

Definite diagnosis of prostate cancer requires microscopic analysis of a biopsy sample of prostate tissue, collected using a needle.

Treatment of prostate cancer

For men whose lives are unlikely to be affected by their prostate cancer, such as those in old age or with low-grade disease, receiving no treatment might be the best option for them. In these cases, a 'watchful waiting' approach may be taken, which involves regularly monitoring the cancer and treating any symptoms, but avoids the possible side effects of cancer treatment.

Surgery or radiation therapy are effective treatments to cure prostate cancer in men with more aggressive but localised disease.

If prostate cancer spreads to other parts of the body, androgen deprivation therapy (ADT) is the usual first line of treatment. However, the cancer can become resistant to this treatment over time. Combination therapy with both ADT and chemotherapy drugs is often used when metastases (prostate cancer that has spread to other parts of the body) are widespread.

Prevention of prostate cancer

There's not much you can do about your age or genetics, so preventing prostate cancer might not be possible. However, a healthy diet, regular exercise and not smoking will help you stay healthy and reduce your likelihood of developing advanced prostate cancer or dying from it.

There's no screening test that's offered to all men to identify those most at risk or with early stages of the disease (like there is for bowel cancer, for example). However, measuring the level of prostate specific antigen (PSA) in a blood sample is commonly used to help determine a man's likelihood of having prostate cancer.

If you're concerned about prostate cancer, talk with your doctor about PSA testing so you understand the implications of the test.

Health effects of prostate cancer

Almost all men with prostate cancer survive for at least five years after they're diagnosed. Ten-year survival rates range from 82-97%, depending on the stage of prostate cancer. Men diagnosed with low-grade prostate cancer are more likely to die of something else. If you're diagnosed with prostate cancer, coming to terms with your diagnosis and treating your disease may affect your physical and mental health. Medical, psychological and behavioural interventions can help you deal with these effects.

What to do about prostate cancer

A cancer diagnosis can be confronting, so finding health professionals who can help you understand the disease and its impact on you is important. There are many options for support.

If you have symptoms of prostate cancer, this doesn't mean you have the disease. However, it's important to talk to your doctor so they can rule out prostate cancer as the cause and help you manage whatever is causing your symptoms. Even if you don't have symptoms, early-stage prostate cancer may be present. If you're concerned about prostate cancer, talk to your doctor about getting a PSA blood test, especially if you have a family history of prostate cancer.

Prostate enlargement

What is prostate enlargement?

The prostate gland is about the size of a walnut and surrounds the top part of the urethra (the tube that carries urine from the bladder to the end of the penis), just under the base of the bladder. As men age, benign prostatic hyperplasia (BPH) can cause prostate enlargement.

Prostate enlargement resulting from BPH is not the same as prostate cancer. On its own, BPH isn't anything to worry about, but its symptoms can cause considerable discomfort, inconvenience and reduced quality of life.

BPH becomes more common as men age. About 50% of all men aged over 50 have BPH, increasing to over 80% for men aged 80 or older.

Symptoms of prostate enlargement

Many men with BPH have urinary symptoms because the region of the prostate that's usually affected is beside the urethra. As the prostate enlarges, the urethra narrows and the normal passage of urine is impaired.

Symptoms of BPH can include:

- Changes in the strength of your urine stream
- Trouble starting to urinate, or dribbling urine towards the finish
- Needing to urinate more or less frequently than usual.

If you notice any of these symptoms, you should talk to your doctor.

Causes of prostate enlargement

Men are more likely to have BPH as they age and if they have metabolic syndrome, diabetes, high blood pressure, obesity, or a diet that's low in fruit, vegetables and legumes.

There is a genetic component to BPH, so some men inherit an increased risk of prostate enlargement.

Testosterone stimulates cell division in the gland, causing prostate growth. Molecules involved in inflammation can also stimulate prostate gland cell division.

Diagnosis of prostate enlargement

Your doctor will ask you some questions about your urinary symptoms, perform an examination and probably test your urine. They may send you for blood tests or an ultrasound scan.

Treatment of prostate enlargement

Men who aren't too bothered by urinary symptoms of BPH may choose to do nothing or make lifestyle changes. Symptoms may be treated by lifestyle changes, medication or surgery.

Surgical procedures to treat BPH include:

- Transurethral resection of the prostate (TURP)
- Photoselective vaporisation of the prostate (PVP)
- Holmium laser enucleation of the prostate (HoLEP).

Procedures like water vapour (steam) therapy or prostatic urethral lift can also be used to treat BPH.

TURP is the most common and best understood procedure used for BPH in Australia, but minimally invasive techniques are becoming more common.

Health effects of prostate enlargement

BPH is not associated with an increased risk of prostate cancer.

While BPH may not directly threaten your health, its symptoms can have a significant effect on your wellbeing. The urinary symptoms of BPH can be inconvenient, limit daily activities, and cause considerable stress and anxiety.

The impact of lower urinary tract symptoms from BPH on men's quality of life is comparable to the effect of asthma.

Since the prostate continues to grow as men age, the symptoms of BPH may become more severe over time, but sometimes symptoms stabilise or even improve over time.

Complications that can arise from BPH include:

- Urinary retention
- Impaired kidney function
- Urinary tract infections
- Bladder stones
- Blood in the urine.

Treating BPH can prevent these complications.

What to do about prostate enlargement

If urinary symptoms are bothering you, make an appointment to see your doctor.

Your doctor might:

- Review your medications in case any of them might be contributing to your symptoms
- Suggest things you can do to relieve your symptoms, such as avoiding caffeine and alcohol or doing pelvic floor exercises
- Prescribe medicine to treat your BPH or refer you to a urologist for specialist treatment.

Prostatitis

What is prostatitis?

Prostatitis is inflammation of the prostate gland, which can be classified into four types:

- Acute bacterial prostatitis (type I), which is short term and caused by bacterial infection
- Chronic bacterial prostatitis (type II), which is long term and caused by bacterial infection
- Chronic prostatitis/chronic pelvic pain syndrome (type III), which is long term and not associated with infection
- Asymptomatic inflammatory prostatitis (type IV), which does not cause pain.

Prostatitis is a common cause of pelvic pain in men, and affects about 15% of Australian men at some point in their lives.

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS; type III) is the most common type of prostatitis, accounting for 80-90% of cases. Bacterial prostatitis is responsible for 5-10% of cases, and most of these are chronic (type II). Around 10% of prostatitis cases are asymptomatic (type IV).

Symptoms of prostatitis

Symptoms of acute bacterial prostatitis (type I) include:

- Urinary tract infection
- A frequent feeling of needing to urinate
- Pain when urinating.

You can also sometimes have whole-body symptoms like fever, muscle pain and generally feeling unwell.

The symptoms of chronic bacterial prostatitis (type II) are the same as for type I, but these symptoms reoccur with periods in between when there are no symptoms and bacteria remain present.

Symptoms of CP/CPPS (type III) include:

- Genital and/or abdominal pain
- Ejaculatory pain
- Lower urinary tract symptoms (LUTS)
- Erectile dysfunction.

CP/CPPS is also associated with long-term pelvic pain, although the cause of this is unknown.

As the name indicates, asymptomatic inflammatory prostatitis (type IV) does not cause any symptoms.

Causes of prostatitis

Acute and chronic bacterial prostatitis are usually caused by bacteria responsible for urinary tract infections and occur when the bacteria move into the prostate gland.

The cause of CP/CPPS is not known.

Diagnosis of prostatitis

If you have symptoms of prostatitis, your doctor will ask you some questions, perform an examination and may ask for a urine sample (to test for bacteria). During the examination, your doctor may perform a digital rectal examination to gently feel your prostate.

Your doctor may use a questionnaire to assess the severity of your symptoms and their impact on your wellbeing.

Treatment of prostatitis

Acute and chronic bacterial prostatitis are treated with antibiotics.

In some patients, medication to relax the muscles around the prostate might also be prescribed.

CP/CPPS can be treated with anti-inflammatory drugs and medications that affect nerve function of the muscles around the prostate. Pelvic floor therapy may provide relief in some cases.

If CP/CPPS affects your mental health, psychological therapy or medications may help. Rarely, surgery may be needed to treat CP/CPPS.

Health effects of prostatitis

Acute and chronic bacterial prostatitis can be successfully treated by antibiotics, but it may be necessary to continue taking antibiotics for some time after your symptoms go away to avoid the infection returning.

CP/CPPS can be difficult to treat because the cause is not always known. By classifying CP/CPPS according to the symptoms it causes, treatment can be targeted to provide relief for most men.

Prostatitis can be a painful and frustrating condition but it is not life-threatening. Chronic prostatitis is uncommonly associated with reduced fertility for some men, but there is no evidence that it leads to prostate cancer.

Prostatitis is not a sexually transmitted infection (STI) and it's not contagious. However, it can be caused by an STI, which you can pass on to others.

What to do about prostatitis

If you have symptoms of prostatitis, make an appointment to see your doctor. If you have a bacterial infection, a course of antibiotics may be enough to clear it.

By understanding your symptoms, your doctor will be able to guide treatment so you

can get some relief. The frustration and long-term pain of CP/CSSP can affect your mental health, so be sure to seek help if your symptoms are affecting how you feel.

Retrograde ejaculation

What is retrograde ejaculation?

Retrograde ejaculation is when semen travels backwards and enters the bladder when you have an orgasm, instead of going forward, out through the penis.

The prevalence of retrograde ejaculation among all men is not known, but about 1 in 200 men with fertility problems have the condition.

Retrograde ejaculation is more likely to occur in men who:

- Use some types of medications
- Have undergone some surgical procedures
- Have medical conditions that affect nerve function.

Symptoms of retrograde ejaculation

If you have retrograde ejaculation, you might notice you have very little or even no ejaculate when you reach orgasm. You might also notice your urine is cloudy when urinating after orgasm.

Causes of retrograde ejaculation

Normally when you orgasm and ejaculate, the muscle at the base of the bladder contracts so semen in the urethra travels out through the penis. If this does not occur, or if the muscle does not close off the bladder outlet completely, semen can flow 'backwards' into the bladder.

This can be caused by a number of things, including:

- Some medicines, including some types of antidepressants and drugs used to treat urinary symptoms associated with benign prostatic hyperplasia (BPH).
- Neurological conditions such as multiple sclerosis, Parkinson's disease and stroke
- Surgical procedures that affect the nerves involved in orgasm and ejaculation
- Nerve damage due to diabetes
- Surgery to treat BPH.

In some cases, there are anatomical causes of retrograde ejaculation (for example, developmental abnormalities).

Diagnosis of retrograde ejaculation

To diagnose retrograde ejaculation, your doctor will ask you some questions, perform an examination, and request a urine sample that's collected after orgasm. This sample, including any semen present, will be sent to a specialised laboratory for testing.

Medical imaging may be used to look for a possible blockage of the reproductive system that's preventing semen passing through, or reasons why semen production might be

affected.

Treatment of retrograde ejaculation

Retrograde ejaculation is usually treated successfully with medications taken in tablet form, but these can cause side effects. Surgery is rarely used to treat retrograde ejaculation.

Health effects of retrograde ejaculation

Retrograde ejaculation does not have serious implications for your health, but it may reduce your fertility.

If your fertility is affected by retrograde ejaculation and medications are not effective, there are several ways of collecting sperm for use in in-vitro fertilisation (IVF).

What to do about retrograde ejaculation

If you have a very small volume (less than 1-2 ml) of ejaculate, or no ejaculate at all, you should see your doctor about it. Although retrograde ejaculation itself is not a serious health problem, it can be caused by conditions that require treatment.

If you have retrograde ejaculation and are having trouble conceiving a pregnancy, your doctor can refer you to someone who can help

Scrotal lumps

Lumps in the scrotum

There are a few different lumps and bumps that can appear in or on your scrotum. Just like for any other part of your body, if you experience testicular pain or you notice anything unusual about the appearance of your scrotum or what's inside it, you should make an appointment to see your doctor.

Most lumps found in the scrotum aren't cancer. Cysts on the scrotum filled with fluid are very common, especially as you get older. Varicose veins within the scrotum are also common.

Hydroceles

What is a hydrocele?

A hydrocele is a swelling in the scrotum caused by a buildup of fluid around one or both of your testes.

Hydroceles are usually painless, but they can increase in size and get very large.

Hydroceles are not dangerous but they can get in the way or become uncomfortable if they get big enough.

Hydroceles are usually a consequence of how your body developed before birth, especially when they occur in babies and young boys. In older males, hydroceles can be caused by injury, infection or inflammation. Very rarely, hydroceles can be a sign of testicular cancer in young men.

What treatments are there for hydroceles?

Hydroceles can be cured by a minor operation.

Varicoceles

What is a varicocele?

A varicocele occurs when the veins in the scrotum that drain blood from the testis (testicle) become abnormally dilated and large. Varicoceles may look or feel like 'a bag of worms' within the scrotum.

Varicoceles become increasingly common with age and usually happen on the left side of the scrotum. They can sometimes cause pain but usually, there are no symptoms.

Varicoceles are commonly found in men who have fertility problems, and surgery to fix the varicocele improves fertility in some of these men.

What treatments are there for varicoceles?

There are several surgical procedures that can be used to treat a varicocele, but treatment is not always necessary.

Epididymal cyst

What is an epididymal cyst?

Epididymal cysts are very common and can happen at any age. They're small collections

of fluid within the epididymis (the thin, coiled tube that transports sperm from the testis).

Usually, epididymal cysts feel like a pea-sized lump at the top of the testicle, but they can become larger.

An experienced doctor can usually diagnose an epididymal cyst with a genital examination. If there is any doubt, the best test is an ultrasound scan.

Epididymal cysts aren't dangerous, and they don't mean you have a higher chance of cancer, infertility or any other problem. Usually, they go away by themselves. If they get larger, they can cause bother or discomfort.

What treatments are there for epididymal cysts?

Epididymal cysts are usually only treated if they are causing pain or discomfort.

Epididymal cysts can be drained using a needle, under local anaesthetic, but the fluid often comes back. Draining the fluid and then injecting something to close up the space in the cyst usually cures them.

Epididymitis

What is epididymitis?

Epididymitis is a painful swelling or inflammation of the epididymis – the thin, coiled tube found behind each testicle. Epididymitis is one of the most common causes of pain in the scrotum. It can be difficult to tell if the pain and swelling are coming from your epididymis, your testicle, or both. You might have pain when urinating, not be able to hold on, or need to urinate urgently or often. Epididymitis can also cause a discharge from the penis, or fever.

Epididymitis is caused by infection, irritation or injury of the epididymis. In younger men, epididymitis usually occurs in association with a sexually transmitted infection. In older men, infections by bacteria from the gastrointestinal tract are more common causes of epididymitis. If you have not yet engaged in sexual activity, the most likely cause of epididymitis is repetitive irritation of the epididymis during physical activity.

What treatments are there for epididymitis?

Epididymitis is usually treated with antibiotics. Your doctor might start you on them straight away, but you might need to change the type of antibiotic depending on your test results.

Orchitis

What is orchitis?

Orchitis is an inflammation of one or both testicles that causes testicular pain, swelling and redness.

Orchitis is usually accompanied by inflammation of the epididymis (epididymo-orchitis). Epididymo-orchitis is a common cause of pain and swelling in the scrotum.

The mumps virus is a common cause of orchitis but it can be caused by other viruses and bacteria. Mumps can damage your ability to produce sperm, especially if you get it after the age of eight.

What treatments are there for orchitis?

The usual treatment for orchitis is pain relief and rest. If you have a bacterial infection, your doctor will probably prescribe antibiotics.

Testicular torsion

What is testicular torsion (twisting)?

Testicular torsion is a twisting of the spermatic cord within the scrotum that reduces or completely stops blood flow to the testicle. Testicular torsion is a medical emergency and requires immediate treatment – the longer it's left untreated, the greater the risk of irreversible damage to the testis.

Testicular torsion causes severe pain, usually in the scrotum, that starts suddenly. In many cases, it causes pain in the abdomen, and nausea and vomiting. You might notice the affected testicle in a different position or higher in the scrotum than normal. It's usually slightly swollen and sore to touch.

Sometimes testicular torsion occurs because the testicle is not securely attached to the wall of the scrotum, making it more likely to twist and block the blood supply. It can also be caused by vigorous activity or injury.

What treatments are there for testicular torsion?

If you have sudden onset pain in the scrotum, seek medical help immediately. Testicular torsion requires immediate surgery to correct the problem.

Testosterone

What is testosterone?

Testosterone is a hormone (a molecule produced by specific cells in the body that is transported in the blood to act on other cells) produced in the testicles of males, the ovaries of females, and the adrenal glands (small glands that sit above the kidneys, which secrete hormones important for many bodily functions) of both sexes. The level of testosterone produced in the testicles is much greater than that produced in the ovaries or adrenals, so testosterone levels are much higher in adult males than females.

Testosterone is the main androgen in men. It is responsible for the development of the male reproductive system before birth.

During puberty, testosterone causes:

- Body hair growth
- Stimulation of sebaceous glands in the skin (which can result in acne)
- Growth of the larynx and vocal cords (resulting in deepening of the voice)
- Increased bone and muscle mass and strength.

In adult men, testosterone regulates:

- Bone health
- Red blood cell production
- Mood and behaviour
- Libido (sex drive)
- Fertility
- The growth and function of the prostate gland.

Testosterone is also needed for spermatogenesis – the production and development of mature sperm.

In women, testosterone is responsible for bone strength and sex drive.

How is testosterone regulated?

Normal testosterone levels are needed for physical and mental health. Your body has ways of making sure your testosterone levels are appropriate for proper bodily function. The hypothalamic-pituitary-gonadal axis controls testosterone production in your body. The hypothalamus is a region at the base of the brain that links the nervous system and endocrine (hormonal) system and regulates many bodily systems to maintain homeostasis – the steady state of the body's systems and processes to maintain optimal function in response to changes in the environment.

The hypothalamus produces gonadotropin-releasing hormone (GnRH), which is released into the blood supply to the pituitary gland. GnRH acts on cells in the pituitary, causing them to release luteinizing hormone (LH) and follicle-stimulating hormone (FSH) into the bloodstream.

LH and FSH both act on cells in the testicles to trigger testosterone production and spermatogenesis, respectively.

Testosterone is released into the bloodstream to act on tissues and cells throughout the body.

The body functions to keep testosterone levels in balance by using negative feedback. Testosterone acts on the hypothalamus and pituitary to decrease the release of GnRH by the hypothalamus, and LH and FSH by the pituitary.

There are many factors that influence testosterone production and actions in the body, including stress, nutrition and exercise. If these are not balanced, or parts of this system are not functioning properly, illness and disease can occur.

How common are problems with testosterone?

Androgen deficiency and hypogonadism are conditions in which testosterone levels are abnormally low. These can be caused by low testosterone levels due to problems in the testicles and/or hypothalamus and pituitary, or because testosterone does not act properly in the body's cells.

Klinefelter syndrome is a common cause of low testosterone levels and occurs in at least 1 out of every 500 Australian males.

A lower level of testosterone in the blood is common in aging men and increases as you get older, often in association with diseases such as obesity or diabetes. This occurs in about 1 in 1000 men aged 40-49, 1 in 170 aged 50-59, more than 1 in 30 aged 60-69, and about 1 in 20 men aged 70-79. These men may have symptoms similar to androgen deficiency but more research is required to know whether testosterone treatment is appropriate for them.

Many men with prostate cancer receive medical treatment to lower their testosterone level.

Artificially high testosterone levels can cause a variety of health problems, including cardiovascular disease, infertility and an increased risk of death. Inappropriate use of testosterone (commonly referred to as androgen abuse) occurs in about 5% of Australians at some point in their lives.

Health effects

Problems caused by low testosterone

If male fetuses don't have enough testosterone during the early stages of pregnancy, they may have disordered sexual development, with lifelong consequences.

Children usually have low testosterone levels, which increase during puberty. If the hypothalamic-pituitary-adrenal axis doesn't work properly, there can be a delay in puberty.

Because testosterone has such an important role in male sexual function, low levels can cause:

- Reduced sex drive
- Problems getting or keeping an erection
- Reduced semen volume

- Reduced fertility.

If you have low testosterone levels, you may also have:

- A less masculine appearance (e.g. less body hair, reduced muscle mass)
- Depressed mood
- Reduced energy and bone strength
- Poor concentration and memory
- Sleep issues.

Having a lower level of testosterone with age is more likely in men who have other health problems. Attention must be paid to these other health problems as the risk and benefits of testosterone treatment are not clear.

Problems caused by high testosterone

The negative feedback system that controls testosterone production prevents excessively high levels of testosterone in men, except in extremely rare circumstances, like if a man has a tumour that produces testosterone.

Most often, high testosterone levels are the result of androgen abuse, which commonly results in:

- Aggression and mood disorders
- Acne
- Gynaecomastia
- Kidney and liver problems
- Cardiovascular disease.

Testosterone deficiency

What is androgen deficiency?

Androgen deficiency is a medical condition caused by problems with your body's ability to make testosterone. Either the hormonal signal that tells your testis to make testosterone, or the ability of your testicles to make testosterone, is not working properly. Androgens are necessary for normal development, health and wellbeing, so androgen deficiency can have wide-ranging effects.

Having a lower-than-normal testosterone level does not necessarily mean you have androgen deficiency. Low testosterone can be caused by short-term or long-term illnesses, such as an infection or diabetes.

Androgen deficiency affects between 1 in 20 and 1 in 200 men.

Symptoms of androgen deficiency

If you have androgen deficiency, you might:

- Lack energy
- Have poor concentration
- Feel depressed
- Feel weak
- Have decreased muscle mass and strength
- Put on fat
- Feel forgetful
- Have trouble sleeping at night or be sleepy during the day
- Get erections less often than normal
- Have a low sex drive.

More specific signs of androgen deficiency that your doctor may look for include:

- Very small testes
- A lack of sperm, causing infertility
- Impaired sexual maturation, including sparse facial and body hair
- A more feminine body fat distribution
- Gynaecomastia and soreness of breast tissue can also occur.

Causes of androgen deficiency

The most common cause of androgen deficiency is a genetic condition called Klinefelter syndrome, which goes undiagnosed in up to 75% of men who have it.

Androgen deficiency is caused by problems with testosterone production by the testicles. This can be due to the testicles themselves not working properly (known as primary hypogonadism), or because there's a problem with the production of the hormones that control the testicles' function (secondary hypogonadism).

Primary hypogonadism can be caused by genetic abnormalities, undescended testes,

testicular injury, some types of infections (e.g. mumps) or other diseases (e.g. haemochromatosis).

Secondary hypogonadism can be caused by some genetic syndromes (e.g. Kallmann's syndrome), disease, or injury to the pituitary gland at the base of the brain.

Diagnosis of androgen deficiency

Your doctor will need to order tests to diagnose androgen deficiency. This usually begins with a blood test.

Treatment of androgen deficiency

How androgen deficiency is treated depends on whether it's due to primary or secondary hypogonadism.

Management of primary hypogonadism involves testosterone replacement therapy using capsules, injections, skin patches, creams or gels, and is very effective at relieving symptoms of androgen deficiency.

Management of secondary hypogonadism involves medical care to deal with the underlying cause, often with testosterone replacement therapy.

Health effects of androgen deficiency

Along with the signs and symptoms listed above, in the long term androgen deficiency increases your chance of developing osteoporosis, which increases your risk of breaking bones. Androgen deficiency also makes you more likely to be diagnosed with a metabolic disease, like diabetes.

What to do about androgen deficiency

If your test results suggest you have androgen deficiency, your doctor will refer you to an endocrinologist or urologist to confirm the diagnosis. Involving additional specialists ensures you get the best treatment possible and makes the medication you'll need more affordable.

Undescended testes (cryptorchidism)

What are undescended testes?

Cryptorchidism means 'hidden testis' and is a condition where one or both testes (testicles) are not in their normal position in the lower part of the scrotum. It's commonly called 'undescended testes'.

During development before birth, the testes begin developing inside the abdomen and gradually move down into the scrotum. The descent of the testes is completed after birth. If this process doesn't occur normally, the testes may be located inside the abdomen, in the groin, above the scrotum or high in the scrotum.

Undescended testes occur in around 1 in 100 to 1 in 20 newborn babies born at full term. In preterm babies, undescended testes can occur in up to half of all newborns.

Undescended testes may not always be diagnosed at birth because the descent of the testes may appear normal at birth but then doesn't continue normally. About 1 in 100 to 1 in 50 boys older than one year are diagnosed with undescended testes each year.

Symptoms of undescended testes

The only sign of undescended testes is when you can't see or feel one (or both) testis in the scrotum. This can be noticed at birth, or later. Cryptorchidism does not cause pain or any other symptoms.

Causes of undescended testes

The cause of undescended testes is unknown. There may be a number of reasons why one or both testes fail to descend during development.

There are many genetic and hormonal factors that can influence the development of the testes.

Diagnosis of undescended testes

A doctor can diagnose undescended testes by performing an examination. Medical imaging or exploratory surgery are rarely required to diagnose undescended testes.

Treatment of undescended testes

If you have undescended testes, you'll need to have surgery. This is usually an operation called orchidopexy, in which the testis (testicle) is moved into the scrotum and secured in place. In some cases, an undescended testis may not have formed properly and may need to be removed.

Surgery for babies born with cryptorchidism is usually performed around six months of

age.

Health effects of undescended testes

In order to function properly, the testes need to be kept slightly cooler than your core body temperature. This is why they're located in the scrotum, outside the abdomen. If the testes aren't located inside the scrotum, this can cause problems with their function. Undescended testes are associated with a higher-than-normal risk of testicular cancer and reduced fertility, but the sooner the condition is treated, the less likely these consequences will occur.

Undescended testes seem to result in smaller testis size, and testosterone production in adulthood may be lower than normal.

What to do about undescended testes

If you can't see or feel one or both testes in the scrotum, you should see your doctor about it. Surgery may be necessary to reposition the testis to minimise the negative effects on its function. The sooner the problem is fixed, the better the outcome.

Urinary problems (LUTS)

What are LUTS?

Lower urinary tract symptoms (LUTS) are problems you notice with passing urine. LUTS may be present in around 50% of men aged over 18, but the prevalence depends on the definition of LUTS. Studies from Australia and overseas show that the prevalence of LUTS increases with age.

LUTS are grouped into two categories: storage symptoms and voiding symptoms.

Storage symptoms include:

- Increased frequency: needing to urinate more often than normal
- Increased daytime frequency
- Nocturia (increased night-time frequency)
- Polyuria: passing larger volumes of urine than normal
- Diurnal (daytime) polyuria
- Nocturnal (nighttime) polyuria
- Bladder-filling symptoms
- Increased bladder-filling sensation: the feeling of having a full bladder occurs more quickly or is stronger than normal
- Urgency: the sudden need to pass urine, which is hard to put off
- Reduced bladder-filling sensation: the feeling of having a full bladder occurs more slowly or is weaker than normal
- Absent bladder-filling sensation: the absence of the feeling of a full bladder or need to pass urine
- Non-specific bladder-filling sensation: abnormal bladder-filling sensation that might feel like bloating or cause nausea, vomiting or feeling faint
- Urinary incontinence symptoms
- Urinary incontinence: involuntary loss of urine
- Urgency urine incontinence: involuntary loss of urine that occurs with a feeling of urgency
- Stress urinary incontinence: involuntary loss of urine during effort, exertion, coughing or sneezing
- Mixed urinary incontinence: both urgency and stress urinary incontinence
- Enuresis: non-continuous loss of urine during sleep
- Continuous urinary incontinence: continuous involuntary loss of urine
- Insensible urinary incontinence: awareness of loss of urine but not how or when it occurred
- Postural urinary incontinence: loss of urine when changing posture or body position (e.g. when moving from a sitting to standing position)
- Disability associated incontinence: involuntary loss of urine because of inability to reach the toilet in time due to limited physical and/or mental ability
- Overflow incontinence: loss of urine associated with a sensation of an overly full bladder
- Sexual arousal incontinence: involuntary loss of urine during sexual arousal or sexual

activity

- Climacturia: involuntary loss of urine during orgasm.

Voiding symptoms include:

- Hesitancy: a delay in beginning to urinate when you're ready
- Paruresis: difficulty urinating in the presence of others but no difficulty when alone
- Episodic inability to void: occasional inability to start urinating
- Straining to void: needing to make great effort to start or maintain urination
- Slow urinary stream: a slower-than-normal urinary stream
- Intermittency: urine flow that stops and starts
- Terminal dribbling: slowing of the urine stream to a dribble towards the end of urinating
- Spraying or spitting of the urinary stream (rather than a single stream)
- Position-dependent voiding: the need to be in a particular position (e.g. sitting) to pass urine
- Dysuria: pain during urination
- Stranguria: difficult, slow, spasmodic (sometimes drop by drop) painful urination
- Haematuria: visible blood in the urine
- Pneumaturia: passage of gas or air during or after urination
- Fecaluria: the passage of faeces via the urethra during urination
- Chyluria: the passage of chyle (milky fluid) during urination
- Urinary retention
- Acute urinary retention: rapid onset discomfort or pain from a full bladder due to an inability to pass urine despite persistent effort
- Chronic urinary retention: ongoing or repeated inability to empty the bladder despite the passage of small volumes of urine
- Post-voiding symptoms
- Incomplete bladder emptying: a feeling that the bladder isn't empty after urinating
- Need for double voiding: feeling a need to urinate soon after completing urination
- Post-voiding incontinence: involuntary passage of urine (including dribbling) after completing urination
- Post-micturition urgency: the feeling of an urgent need to urinate after completing urination.

Storage symptoms are twice as common as voiding symptoms in men, with nocturia (almost 1 in 2 men) and urgency (1 in 10 men) the most common. Terminal dribble is the most common voiding symptom in men (1 in 7).

Causes of LUTS

Storage symptoms in men are associated with:

- Abdominal obesity
- Abnormal blood sugar and cholesterol levels.

Voiding symptoms are associated with:

- Erectile dysfunction

- Benign prostatic hyperplasia (BPH)
- Thyroid dysfunction
- A high energy intake
- A low handgrip strength and urine flow rate.

Both categories of LUTS are associated with obstructive sleep apnoea.

Benign prostatic hyperplasia (BPH) is a common cause of LUTS in men, which becomes more common with age.

Other causes of LUTS in men include urinary tract infections, bladder muscle over-activity, and blockages in the bladder or along the urethra. Weak pelvic floor muscles can also cause LUTS. Cancer of the lining of the inside of the bladder, kidneys or ureters (the tubes that carry urine from the kidneys to the bladder).

Diagnosis of LUTS

To diagnose LUTS, your doctor might:

- Ask you a short series of questions to measure the presence and severity of LUTS
- Perform a physical examination and check your urine to see if you have a urinary tract infection
- Ask you to keep a diary of your fluid intake and urine output to help assess your urinary function
- Suggest tests to assess your prostate gland, since BPH is a common cause of LUTS.

Treatment of LUTS

Treatment for LUTS will depend on your specific symptoms and other health factors.

Mild LUTS may be managed by changes in your behaviour, such as watching what you drink and when. Pelvic floor exercises or 'bladder training' may also help.

Some medications can cause LUTS, so your doctor may review and/or change these. There are several types of medications that can be used to treat LUTS, some of which target the prostate if BPH is the cause.

LUTS due to BPH that does not respond to medical treatment may need surgery.

Medicines to treat urge incontinence cure about half of the people who use them, whereas surgery helps more than 4 out of 5 people. Pelvic floor muscle training cures between 1 in 4 and 4 in 5 people.

Health effects of LUTS

LUTS can be a significant source of bother for some people. LUTS might make you reluctant to leave your house or socialise because of the inconvenience of needing to go to the toilet often or in a hurry.

LUTS can make you anxious and depressed and impact your personal relationships.

Sexual dysfunction, such as problems with erections or ejaculation, can accompany LUTS

for some men.

Urinary retention can be painful and can lead to urinary tract infections and damage to the bladder or kidneys.

LUTS can be a sign of a serious underlying condition, so it's really important to see your doctor if you have any urinary symptoms.

What to do about LUTS

If you notice any lower urinary tract symptoms, you should see your doctor to discuss your symptoms, their impact on you and your treatment options.

Your LUTS may progress and get worse without treatment, so seeing your doctor early is best.

If you have symptoms of acute urinary retention (i.e. pain, bladder distension or an inability to pass urine), you should seek immediate medical help. It may be necessary for a doctor to insert a catheter to drain your bladder.

Varicocele

What is a varicocele?

A varicocele occurs when the veins in the scrotum that drain blood from the testis (testicle) become abnormally dilated and large.

Varicoceles may look or feel like 'a bag of worms' within the scrotum. The way they look or feel depends on their size:

- Grade 1 varicoceles are small and can only be felt if you're standing and bearing down, coughing or straining
- Grade 2 varicoceles are a moderate size and can be felt when you're standing normally
- Grade 3 varicoceles are large and can be seen within the scrotum when you're standing.

Varicoceles become increasingly common with age. The incidence is very low (less than 1%) under 10 years of age, increasing to around 15% in healthy young men. Varicoceles affect around 75% men aged 80-89 years.

A varicocele occurs most commonly on the left side. About half of men with a varicocele only have it on the left side; in the other half, most have varicoceles on both sides.

Varicocele on only the right side occurs in fewer than 1 in 50 men with a varicocele.

Symptoms of a varicocele

Varicoceles cause pain in 2-10% of men who have them, but usually there are no symptoms. In a minority of men, varicoceles can impact fertility.

Men who seek help for treating varicoceles describe a heavy dragging feeling towards the end of the day or on standing for prolonged periods. The discomfort is not sharp or very intense and usually resolves when they lie down.

Causes of a varicocele

Varicoceles are caused by a backup of blood in the veins within the scrotum.

There are some differences in anatomy between the right and left sides of the body that make varicocele more common on the left.

Varicoceles are more likely to occur in men with varicose veins in their legs, or those whose fathers or brothers have a varicocele.

Diagnosis of a varicocele

Your doctor can diagnose varicocele by performing an examination.

They may examine the size and firmness of your testes (testicles) to see if your varicocele is causing possible problems with your testicular function.

Sometimes, varicoceles are diagnosed during an examination to investigate possible causes of infertility.

Usually, there are no additional tests needed to diagnose varicoceles, unless there are

concerns about fertility. In these cases, a semen analysis might be performed. Some doctors might suggest measuring your testosterone levels, but this is not a standard test. In some men it can be difficult to perform a thorough examination of the scrotum, so an ultrasound scan might be necessary. If a varicocele is seen using ultrasound but is very small, in the vast majority of cases no treatment will be necessary.

Treatment of a varicocele

There are several surgical procedures that can be used to treat a varicocele, but treatment is not always necessary.

In most cases, surgery to repair a varicocele is only performed in the following circumstances:

- When the varicocele is causing discomfort
- If infertility is likely
- To reverse or prevent the testis becoming smaller.

Health effects of a varicocele

Varicoceles may inhibit development of sperm by the testes. Whether or not testosterone production by the testes is affected is not known for sure, but if it is the effect is likely to be very small. Surgical correction of varicocele can reverse these problems.

What to do about a varicocele

If you have genital pain or notice any change in the appearance of your genitals, you should see your doctor.

Varicoceles may not pose a threat to your health, but it's worth asking your doctor to help you keep an eye on it

Vasectomy

What is a vasectomy?

A vasectomy is a surgical procedure that causes permanent sterilisation of men, preventing them from fathering children. During a vasectomy, the vas deferens is cut and a small length is usually removed so that sperm produced by the testis (testicle) can't travel further through the reproductive system. The same procedure is used on both sides of the scrotum.

A vasectomy is a very safe, reliable, and permanent method of contraception.

The number of Australian men who have had a vasectomy is not accurately known. The commonly reported prevalence of around 8-15% overall, and 25% of Australian men aged over 40 years, is based on survey responses from women about their contraceptive use. Nearly 29,000 vasectomies are performed each year in Australia. Most vasectomies are performed in men who have already fathered children and don't want any more.

Who performs a vasectomy?

Vasectomies are performed by some general practitioners, general surgeons, and urologists. The procedure can be performed as a day procedure in a hospital, under general anaesthesia, or in a medical clinic under local anaesthesia.

What happens after a vasectomy?

As with any surgical procedure, there's a small risk of pain, bleeding, bruising, and/or infection after a vasectomy. Your doctor will provide advice about how to minimise the risk or treat these problems.

How successful is vasectomy in preventing pregnancy?

Sperm remain in the reproductive system for some time, so it's important to use condoms or some other suitable form of contraception after your vasectomy until you confirm that the vasectomy was successful. Analysis of a semen sample around three months after the procedure can confirm there are no sperm in the ejaculate. Pregnancy occurs in about 1 in 700 couples within the first year after vasectomy. Pregnancy after successful vasectomy (confirmed by no sperm in the ejaculate) is believed to be very rare, but low numbers of sperm in ejaculate may occur for a short period in 1 in 150 to 1 in 200 men.

Health effects of a vasectomy

A vasectomy doesn't protect you or your partner(s) from sexually transmitted infections. The best way to avoid these infections is the proper use of condoms.

You probably won't notice any change in the appearance or amount of your ejaculate after your vasectomy because sperm make up only a small percentage (5-10%) of the ejaculate volume. The production of fluids from the bulbourethral glands, seminal vesicles, and prostate, which make up most of the ejaculate, doesn't change following a vasectomy.

Because a vasectomy has no effect on the testes (testicles) or other parts of the reproductive system, your levels of testosterone and other hormones won't be affected by a vasectomy. Your sexual satisfaction might increase after a vasectomy.

Due to the permanent nature of a vasectomy, it is important to consider not only what is right for you now, but what may be right for you in the future. For example, if you are in a relationship it is important to consider if you might want children outside of this relationship should your situation change.

Can a vasectomy be reversed?

Although a vasectomy should be considered irreversible when you're making a decision about whether it's right for you, an operation to reconnect the vas deferens is possible if you want to recover your fertility. About 3 out of 4 couples who want to conceive after a vasectomy reversal do achieve pregnancy, but success is influenced by many other fertility-related factors like age and other health conditions, as well as the time since vasectomy. An alternative to a vasectomy reversal for men who wish to father children is the use of assisted reproductive technologies (ART).

What to do about a vasectomy

You should discuss fertility and contraceptive options, including vasectomy, with your partner(s) and your doctor.

Your doctor can help you consider and access many different types of contraceptives.

An important factor in making decisions about vasectomy is to compare it to other long-term contraceptive options. The female equivalent of vasectomy is tubal ligation, which is more complicated, more expensive, and more invasive (and thereby, potentially riskier) than vasectomy.