What is the prostate?
The prostate is a small but important gland (organ) in the male reproductive system. The main role of the prostate is to make fluid that protects and feeds sperm. The prostate makes about one third of the fluid that is ejaculated (released) from the penis at orgasm (sexual climax).

Where is the prostate?
In young men the prostate is about the size of a walnut, but it gets bigger with age. The prostate sits underneath the bladder, and surrounds the top part of the urethra. Urine passes through the urethra on its way from the bladder to the penis.

What is prostate disease?
Prostate disease is any medical problem that affects the prostate gland. Common prostate problems include benign prostatic hyperplasia (BPH), prostatitis and prostate cancer.

What is prostatitis?
Prostatitis is inflammation of the prostate gland, which means the prostate can feel sore and irritated. Prostatitis can be caused by a bacterial infection or non-bacterial inflammation, and it can be very painful and have a major effect on quality of life.

What are the types of prostatitis?
The main types of prostatitis are bacterial and non-bacterial prostatitis.

**Bacterial prostatitis**
Acute bacterial prostatitis is caused by bacteria and is the easiest form of prostatitis to diagnose and treat, although serious complications may develop if it is not treated quickly. Acute bacterial prostatitis is the least common form of prostatitis and it can be life-threatening if the infection is not treated.

Chronic bacterial prostatitis is caused by an underlying problem in the prostate, such as prostate stones or BPH (enlarged prostate), which becomes the focus for bacteria in the urinary tract. Chronic bacterial prostatitis is a common cause of frequent urinary tract infections in men.

**Non-bacterial prostatitis**
Chronic non-bacterial prostatitis (chronic pelvic pain syndrome) is an inflamed prostate without bacteria and is the form of prostatitis that is not well understood. Urinary tract infections do not happen with this form of prostatitis. Symptoms may disappear and come back later. Stress often makes symptoms of chronic non-bacterial prostatitis worse.

What causes prostatitis?
Sexually transmitted infections (STIs) can develop into bacterial prostatitis. Unprotected sexual intercourse can let bacteria into the urethra and the bacteria can move up to the prostate.

Other cases of bacterial prostatitis develop when there is a bladder outlet obstruction (BOO, blockage of the outlet of the bladder) that might be caused by an enlarged prostate gland. BOO can cause urinary tract infections that then spread to the prostate.

Prostatitis may also happen without bacterial infection; however the causes of non-bacterial prostatitis are not known. Other factors that can contribute to development of prostatitis include diabetes, a suppressed immune system or a viral illness that stresses the immune system.

How is prostatitis diagnosed?
It is not easy to diagnose prostatitis because it is difficult to get an accurate laboratory test that is specific to this condition.

All or some of the following tests can be done to check for prostatitis:

A **digital rectal examination (DRE):** the doctor places a gloved finger into the rectum to feel if the prostate gland is swollen or tender.
Prostatitis

A three-part urinalysis: two urine samples are collected and analysed, the prostate is then massaged, and a third urine sample is taken containing fluid from the prostate. The urine is tested to see if leukocytes and bacteria are present in the urine. Leukocytes help the body to fight infection, so if there are more leukocytes in the urine than normal, it may be a bacterial infection. Non-bacterial prostatitis is diagnosed when no bacteria are found in the urine or prostate fluid.

A PSA test: the level of prostate specific antigen (PSA) in the blood is measured. Raised PSA levels are a marker of prostate cancer and PSA can also be raised in prostatitis and BPH (enlarged prostate).

Urine PCR (polymerase chain reaction) test for STIs: This laboratory test is very accurate and should be done if an STI, such as chlamydia, might be the cause of the prostatitis.

How is prostatitis treated?
The treatment for prostatitis depends on the cause but it cannot always be cured. If there is an underlying cause of prostatitis, this should be treated first. For example, in chronic prostatitis, the bladder outlet obstruction or stones should be removed. Antibiotics are an effective treatment for acute bacterial prostatitis.

Non-bacterial prostatitis can be treated in a number of ways that aim to help painful symptoms.

What oral medicines are used to treat prostatitis?
Some men get relief from their symptoms using antibiotics if they have a bacterial form of prostatitis.

A type of medicine called an ‘alpha blocker’ can be used to relax the muscles in the upper part of the urethra which helps with pain.

Medicines that reduce inflammation (anti-inflammatory agents) can also help with symptoms.

When is surgery (TURP) used to treat prostatitis?
Transurethral resection of the prostate (TURP) is surgery where the prostate is removed in small pieces through the penis. A small camera (endoscope) and a device for cutting and removing tissue from the body (resectoscope) are guided through the urethra to the prostate and bladder.

TURP should only be used with chronic prostatitis caused by BPH (enlarged prostate) and/or prostate stones causing chronic prostatitis.

Side effects of TURP include retrograde or dry ejaculation and lower fertility.

What other treatments are used for prostatitis?

Prostate massage

Prostate massage can be used for chronic pelvic pain syndrome when medicines are not helpful. A specialist doctor (urologist) massages the prostate through the rectum until any excess fluids in the prostate are pushed out. This technique can be very helpful when the prostate is swollen.

Pelvic floor exercises

Pelvic floor muscles help control the bladder and bowel. For some men, pelvic floor muscle relaxation techniques are helpful when prostatitis is caused by the pelvic floor muscles or bladder not working properly. Pelvic floor relaxation techniques can help reduce symptoms caused by stress and are taught by a health professional such as a physiotherapist.

What else can I do to help relieve prostatitis symptoms?

Other tips for helping relieve symptoms of prostatitis include:
- cut out caffeine, alcohol, and spicy foods from the diet
- hot baths
- avoid constipation because large, hard bowel movements can press on the sore prostate and can be quite painful.

Antibiotics are an effective treatment for acute bacterial prostatitis

Is there a link between prostatitis and prostate cancer?

Studies have suggested that men with long-term prostatitis may have a slightly higher chance of developing prostate cancer. Although a definite link has not been shown, men with long-term prostatitis should have regular prostate checks.

Can prostate infections cause infertility?

Infections of the prostate can cause swelling and block off part of the reproductive tract that passes through the prostate. This can also stop sperm from being ejaculated.

Because the prostate and seminal vesicles contribute most of the fluid to the ejaculate, blockage near the prostate can sometimes reduce the volume of ejaculate. Infections of the prostate and seminal vesicles can also cause inflammatory cells to pass into the ejaculate, which may damage the sperm.

How can prostatitis affect a man’s life?

Prostatitis can be very painful and a man with this condition can have a lower quality of life. If a man is unsure of whether the condition can be treated, he may feel depressed thinking that nothing can be done. Prostatitis can also lower libido (sexual desire) in men, because the pain can make it hard to enjoy sexual activity.

For more information visit www.andrologyaustralia.org, call 1300 303 878, or speak to your doctor.

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