Acute Prostatitis

When the prostate gland becomes infected with a germ (a bacterial infection), the condition is known as acute prostatitis. Symptoms include pain, mainly at the base of the penis and around the anus. A bladder infection commonly occurs at the same time. Treatment includes a four-week course of antibiotic medication.

Symptoms

In acute prostatitis, symptoms develop quickly - typically over a few days or so. It usually occurs at the same time as a urine infection. Therefore, you may also have a bladder infection (cystitis). Germs (bacteria) are found in your urine if a urine sample is taken. Symptoms include:

- **Pain from your prostate**, which may be severe. You feel this mainly at the base of your penis, around your anus, just above your pubic bone and/or in your lower back. Pain may spread to your penis and testicles (testes). Passing stools (faeces) can be painful.
- **Symptoms of a urine infection**. For example: pain when you pass urine, passing urine frequently, an urgent desire to pass urine, and sometimes having blood in your urine. Some people can develop problems so that they are unable to pass urine and the urine builds up in the bladder (this is called urinary retention). See the separate leaflet called Urinary Retention.
- **High temperature (fever)**. General aches and pains. You generally feel ill.
- **A small amount of thick fluid (discharge)** may come out of your penis from your urethra.
- **Your prostate feels tender if a doctor examines it** with a gloved finger in your back passage (rectum).

What is the prostate gland?

![Diagram of the prostate and nearby organs]

Only men have a prostate gland (just referred to as the 'prostate' from now on here). It lies just beneath the bladder. It is normally about the size of a chestnut. The urethra is the tube that urine travels along from the bladder to the outside and it runs through the middle of the prostate and then through the penis. The prostate helps to make semen but most semen is made by another gland nearby (the seminal vesicle).

Causes

**Infection by germs (bacteria) that normally live in your bowel**

This is the usual cause. Some bacteria that live harmlessly in the bowel commonly get on to the skin near to the anus when we pass stools (faeces). In some people they may then multiply. Some of these bacteria may then travel up the urethra and cause infection anywhere in the urinary tract - that is, the kidneys, bladder, prostate, or urethra. This is called a 'urinary tract infection'.

A prostate infection may also occur with or without other parts of the urinary tract being infected. Some conditions that cause pooling or blockage of urine increase the risk of a urinary tract infection. For example, **having an enlarged prostate** or kidney stones. This is because bacteria often thrive and multiply quickly in pooled urine.

**Less common causes**

- Damage to the prostate makes it more prone to infection - for example, after prostate surgery.
• A thin, flexible, hollow tube (a catheter) passed into the bladder through the urethra may sometimes let bacteria travel to the prostate. This can also happen after a telescopic instrument is passed through the urethra into the bladder (as happens during investigation of the prostate gland and the bladder).
• Sometimes the prostate is infected by bacteria in the bloodstream that have travelled from other infections in the body.

Acute prostatitis is not considered a sexually transmitted infection, so a sexual partner is not at risk.

Who gets acute prostatitis?
Acute prostatitis caused by infection with a germ (acute bacterial prostatitis) is not that common. Only about 2 in 10,000 men will develop acute prostatitis at some point in their lives.

Do I need any tests?
• A urine test will usually detect germs (bacteria) if you have acute prostatitis. Your doctor will usually be able to do a quick test on your urine in the surgery (a dipstick urine test). This can show if infection is likely to be present. They may then send your urine sample to the laboratory to be tested further and to confirm infection.
• Other tests such as X-rays, ultrasound scan or computerised tomography (CT) scan may be advised following acute prostatitis. This is to rule out any problem with your urinary tract that may have contributed to causing the infection.

Acute prostatitis can produce similar symptoms to a sexually transmitted infection. For this reason, if you are at risk of a sexually transmitted infection, your doctor may suggest that you have some swab or urine tests to exclude this. Note: acute prostatitis is not a sexually transmitted infection.

What is the treatment for acute prostatitis?
• Antibiotics. A four-week course is needed. Antibiotics are generally started before the confirmatory urine test results are back. The first antibiotic may be changed after the result of the urine test is back. The urine test finds exactly which germ (bacterium) is causing the infection and the best antibiotic to treat it. Four weeks of antibiotics are thought to be necessary to reduce the chance that you develop persistent (chronic) prostatitis. If you are very unwell, you may need to go into hospital to have the antibiotics given through a vein.
• Paracetamol or ibuprofen ease pain and high temperature (fever). They are best taken regularly rather than now and then.
• Laxatives can keep your stools (faeces) soft, if needed. They may help to ease pain if you have hard stools in your back passage (rectum), pressing on your infected prostate.

What is the outlook (prognosis)?
Acute prostatitis usually clears with a course of antibiotics. However, it is important to take the full course to clear the infection completely. There is a risk that an acute infection may become a persistent (chronic) infection if you do not take the full course of antibiotics. See the separate leaflet called Chronic Prostatitis for further details.

Rarely, apart from chronic bacterial prostatitis, other complications of acute prostatitis can occur. These include:
• Sudden-onset (acute) urinary retention. Because it may be so painful to pass urine, urine can build up in your bladder, causing pain in your lower tummy (abdomen) and inability to pass urine at all. To relieve this, a thin, flexible, hollow tube (a catheter) is needed. This is usually inserted through a small cut in your tummy (abdomen) directly into your bladder to drain the urine. The catheter can usually be removed once the antibiotics have started working and the infection of the prostate is clearing.
• Prostate abscess. If the antibiotics do not effectively treat the prostate infection, rarely you can develop an abscess of your prostate. Your doctor may suspect this if your symptoms do not improve despite antibiotic treatment. Further tests are needed to confirm a prostate abscess, such as an ultrasound or CT scan of your prostate. If an abscess is present, an operation is needed to drain it.

Further reading & references
• Guidelines on Urological Infections; European Association of Urology (2018).
• Prostatitis - acute; NICE CKS, August 2014 (UK access only)
• Ludwig M; Diagnosis and therapy of acute prostatitis, epididymitis and orchitis. Andrologia. 2008 Apr;40(2):76-80.

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