

Prostatitis: Disorders of the Prostate

National Kidney and Urologic Diseases Information Clearinghouse

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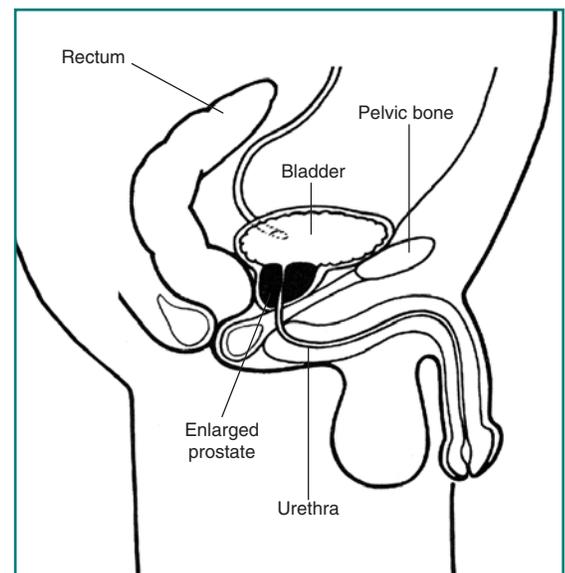
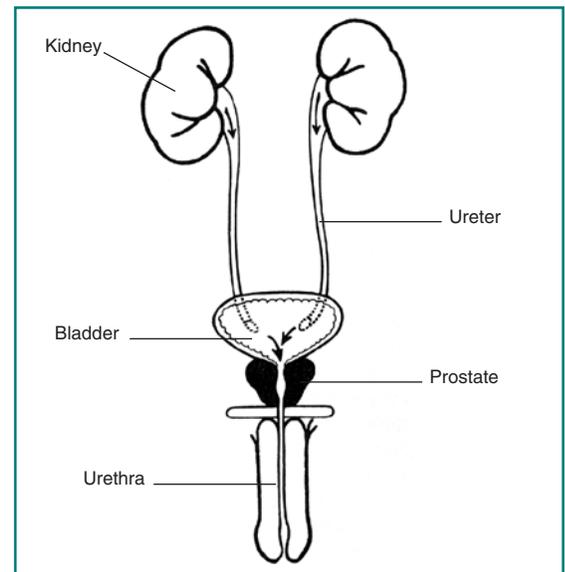
Prostatitis is a frequently painful condition that affects mostly young and middle-aged men. Doctors may have difficulty diagnosing prostatitis because the symptoms are not the same for every patient, and many of the symptoms—such as painful or burning urination and incomplete emptying of the bladder—could be signs of another disease.

What is the prostate?

The prostate is a walnut-sized gland that forms part of the male reproductive system. The gland is made of two lobes, or regions, enclosed by an outer layer of tissue. As the diagrams show, the prostate is located in front of the rectum and just below the bladder, where urine is stored. The prostate also surrounds the urethra, the canal through which urine and semen pass out of the body. The prostate squeezes fluid into the urethra to help make up semen as sperm move through during sexual climax.

Researchers estimate that 10 to 12 percent of men experience prostatitis-like symptoms.¹ The term prostatitis means inflammation of the prostate, but doctors use the term to describe four different disorders.

¹McNaughton-Collins M, Joyce GF, Wise M, Pontari MA. Prostatitis. In: Litwin MS, Saigal CS, editors. *Urologic Diseases in America*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. Washington, DC: U.S. Government Publishing Office, 2007; NIH Publication No. 07-5512 pp. 9-42.



The prostate is part of the male reproductive system. It surrounds the urethra just below the bladder opening.

What are the types of prostatitis?

- **Acute bacterial prostatitis** is the least common of the four types and is potentially life-threatening. Fortunately, it is the easiest to diagnose and treat effectively. Men with this disease often have chills; fever; pain in the lower back and genital area; urinary frequency and urgency, often at night; burning or painful urination; body aches; and a demonstrable infection of the urinary tract as evidenced by white blood cells and bacteria in the urine. The treatment is an antimicrobial, a medicine that kills microbes—organisms that can only be seen with a microscope, including bacteria, viruses, and fungi. Antimicrobials include antibiotics and related medicines.
- **Chronic bacterial prostatitis**, also relatively uncommon, occurs when bacteria find a spot on the prostate where they can survive. Men have urinary tract infections that seem to go away but then come back with the same bacteria. Treatment usually requires the use of antimicrobials for a prolonged period of time. However, antimicrobials do not always cure this condition.
- **Chronic prostatitis/chronic pelvic pain syndrome** is the most common but least understood form of prostatitis. It may be found in men of any age. Its symptoms go away and then return without warning, and it may be inflammatory or noninflammatory. In the inflammatory form, urine, semen, and prostatic fluid contain the kinds of cells the body usually produces to fight infection, but no bacteria can be found. In the noninflammatory form, not even the infection-fighting cells are present.

- **Asymptomatic inflammatory prostatitis** is the diagnosis given when the patient does not complain of pain or discomfort but has infection-fighting cells in his prostate fluid and semen. Doctors usually find this form of prostatitis when looking for causes of infertility or testing for prostate cancer.

How is prostatitis diagnosed?

A doctor performs a digital rectal exam (DRE) by inserting a gloved and lubricated finger into the patient's rectum, just behind the prostate. The doctor can feel the prostate to see if it is swollen or tender in spots.

The doctor can diagnose the bacterial forms of prostatitis by examining a urine sample with a microscope. The sample may also be sent to a laboratory to perform a culture. In a urine culture, the bacteria are allowed to grow so they can be identified and tested for their resistance to different types of antimicrobials.

To confirm the prostate infection, the doctor may obtain two urine samples—before and after prostate massage. To perform a prostate massage, the doctor will insert a gloved and lubricated finger into the rectum, as in a DRE, and stroke the prostate to release fluids from the gland. The post-massage urine sample will contain prostate fluid. If that second urine sample contains bacteria or infection-fighting cells that were not present in the pre-massage urine sample, this suggests the prostate contains infection.

To diagnose chronic prostatitis/chronic pelvic pain syndrome, the doctor must rule out all other possible causes of urinary symptoms, such as kidney stones, bladder disorders, and infections. Since many different conditions must be considered, the doctor may order a full range of tests, including

ultrasound or magnetic resonance imaging (MRI), biopsy, blood tests, and tests of bladder function.

If all other possible causes of a patient's symptoms are ruled out, the doctor may then diagnose chronic prostatitis/chronic pelvic pain syndrome. To aid in understanding the symptoms and measuring the effects of treatment, the doctor may ask a series of questions from a standard questionnaire, the NIH-Chronic Prostatitis Symptom Index.

How is prostatitis treated?

The bacterial forms of prostatitis are treated with antimicrobials. Acute prostatitis may require a short hospital stay so that fluids and antimicrobials can be given through an intravenous, or IV, tube. After the initial therapy, the patient will need to take antimicrobials for 2 to 4 weeks.

Chronic bacterial prostatitis requires a longer course of therapy. The doctor may prescribe a low dose of antimicrobials for 6 months to prevent recurrent infection. If a patient has trouble emptying his bladder, the doctor may recommend medicine or surgery to correct blockage.

Antimicrobials will not help nonbacterial prostatitis. Each patient will have to work with his doctor to find an effective treatment. Changing diet or taking warm baths may help. The doctor may prescribe a medicine called an alpha blocker to relax the muscle tissue in the prostate. No single solution works for everyone with this condition.

No treatment is needed for asymptomatic inflammatory prostatitis.

Hope through Research

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) has many research programs aimed at finding treatments for urinary disorders, including prostatitis. The NIDDK supports the Chronic Prostatitis Collaborative Research Network, which funds and coordinates multicenter clinical trials of new therapies to relieve the pain or discomfort of chronic prostatitis/chronic pelvic pain syndrome.

For More Information

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www.UrologyHealth.org

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Internet: www.prostatitis.org

You may also find additional information about this topic by visiting MedlinePlus at www.medlineplus.gov.

This publication may contain information about medications used to treat a health condition. When this publication was prepared, the NIDDK included the most current information available. Occasionally, new information about medication is released. For updates or for questions about any medications, please contact the U.S. Food and Drug Administration at 1-888-INFO-FDA (463-6332), a toll-free call, or visit their website at www.fda.gov. Consult your doctor for more information.

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Publications produced by the Clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This publication was reviewed by Mark Litwin, M.D., University of California at Los Angeles, and Anthony Schaeffer, M.D., Northwestern University.

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