

## **DIAGNOSIS AND TREATMENT OF CHRONIC PYELONEPHRITIS**

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Pyelonephritis is a kidney infection, usually from bacteria that have spread from the bladder.

Classification: Acute pyelonephritis, Chronic pyelonephritis, Xanthogranulomatous pyelonephritis.

Possible causes of kidney infection include the following: infections in the bladder, use of a catheter to drain urine from the bladder, use of a cystoscope to examine the bladder and urethra, surgery on the urinary tract, conditions such as prostate enlargement and kidney stones that prevent the efficient flow of urine from the bladder, defects or abnormalities in the urinary tract that block the flow of urine.

Symptoms include the following: back, side, and groin pain, urgent, frequent urination, pain or burning during urination, fever, nausea and vomiting, pus and blood in the urine.

The complications of pyelonephritis. Severe or recurrent infections may cause permanent kidney damage and lead to chronic kidney disease. In rare cases, infection in the kidney may spread to the bloodstream. Infection of the bloodstream is a serious condition called sepsis. Acute renal failure, a temporary condition in which the kidneys stop working, can also result.

Diagnosis of pyelonephritis. Diagnosis is made with a urine test to identify bacteria and formations of white blood cells, called casts, shaped like tubes in the kidneys. If an infection cannot be easily cured, x rays might be done to look for abnormalities in the kidneys, ureters, and bladder.

Treatment of pyelonephritis. A kidney infection is treated with an appropriate antibiotic taken for several weeks. As most cases of pyelonephritis are due to bacterial infections, antibiotics are the mainstay of treatment. The choice of antibiotic depends on the species and antibiotic sensitivity profile of the infecting organism, and may include fluoroquinolones, cephalosporins, aminoglycosides, or trimethoprim/sulfamethoxazole, either alone or in combination. In patients, not requiring hospitalization where there is a low prevalence of antibiotic-resistant bacteria, an oral fluoroquinolone such as ciprofloxacin or levofloxacin is an appropriate initial choice for therapy.

Anatomic abnormalities may need to be surgically treated. Severely ill patients with kidney infections may be hospitalized until they can take fluids and needed drugs on their own.