

Urinary Tract Infections in Women

A urinary tract infection (referred to as a '*UTI*') is an infection that develops in any part of the urinary system, including the kidneys, ureters, bladder and urethra. Urine is produced by the kidneys and travels down the ureters to the bladder, which acts as a reservoir holding the urine until it is excreted through the urethra. Most urinary tract infections arise from the lubricating glands outside the urethra.

Infections are usually caused by bacteria and may be confined to the urethra (urethritis) or they may extend to the bladder (cystitis). Occasionally, an infection can spread up the ureters and infect the kidneys (pyelonephritis). Frequently, women will harbor a low-grade infection in the peri-urethral glands without any symptoms. Flare-ups in symptoms of infection can occur without warning. In sexually active women intercourse is a common contributing factor.

Symptoms may include burning of urination, bladder pressure, urgency (need to urinate often), frequency and increased voiding at night (nocturia). If the infection involves the bladder blood may be seen in the toilet after urinating. When the infection involves the kidneys high fever, chills, nausea, vomiting, back pain and upper abdominal pain may be present. When the infection involves the bladder or kidney a urinalysis and a urine culture will be positive for infection. If the infection only involves the urethra, the urine may be clear because the infection has not spread to the urine. However, our brains cannot tell the difference between a urethral and a bladder infection, as the symptoms are similar.

Treatment involves antibiotics to kill the bacteria and clear the infection. Usually 3-5 days of antibiotic therapy will clear a bladder infection and 7 days will cure a kidney infection. When the infection involves the urethral glands, treatment is more involved as it is a low-grade chronic condition that tends to flare periodically. It also may be associated with other symptoms due to chronic swelling and inflammation of the lining of the urethra, including a slower urinary stream and a need to strain to empty the bladder (referred to as chronic urethritis, urethral syndrome and urethral stenosis). Treatment for this condition is aimed at reversing these symptoms and preventing future flare-up infections.

Most women with urethral syndrome and stenosis can be treated successfully with a combination of long-term low dose antibiotic therapy and periodic dilations of the urethra performed in the office with topical anesthesia. The goal is the return of normal urinary function.