

THE UROLOGY GROUP

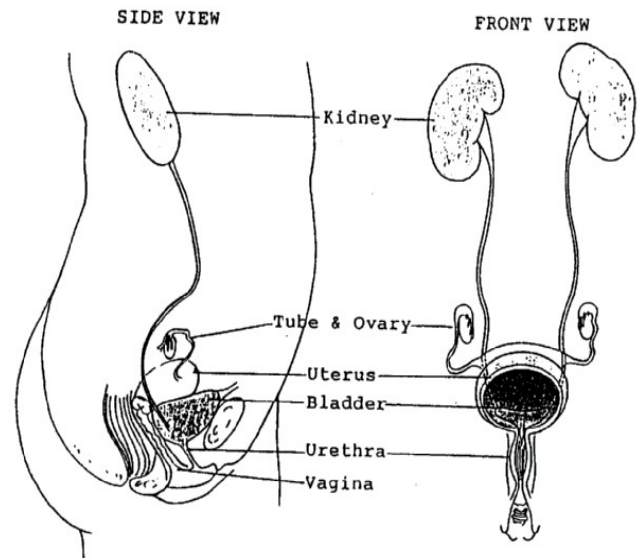
www.urologygroupvirginia.com

1860 Town Center Drive · Suite 150/160 · Reston, VA 20190 · 703-480-0220
19415 Deerfield Avenue · Suite 112 · Leesburg, VA 20176 · 703-724-1195
224-D Cornwall Street, NW · Suite 400 · Leesburg, VA 20176 · 703-443-6733
24430 Stone Springs Blvd · Ste 100 · Dulles · VA 20166

RECURRENT CYSTITIS

Recurrent cystitis is a term used to describe repeated bladder infections. This is a common condition which affects women of all ages. It is estimated that approximately 80% of women will acquire a bladder infection at some time during their life. As many as 20% of women will have problems with recurrent infection.

The function of the urinary tract is to clean waste products from the blood. The urinary tract begins with the kidneys which sit high in the back. Blood is filtered through the kidneys which extract excess fluid and waste products to make urine. Once the urine is made by the kidney, it is transported down through tubes called the ureter to the bladder. The bladder sits in the pelvis, which is in the area in the lower abdomen. The bladder stores urine until full then empties the urine to the outside through the urethra.



Infection in the urinary tract can occur when bacteria gain access to the bladder. Bacteria are normally present at the opening of the urethra and in the vagina, which is immediately next to the urethra. These bacteria can ascend up through the urethra to reach the bladder. Once present in the bladder, the bacteria can multiply and produce infection.

The typical symptoms of bladder infection are frequent urination, painful urination, and urgency - which is the feeling of the need to urinate immediately. In addition, there can be lower abdominal or pelvic pain. Blood in the urine may be present as well. Another symptom may be a sense of feeling the need to void further after urination, in spite of having just emptied the bladder. Low grade fever and low back pain may be present as well.

The diagnosis of infection begins with the doctor's history and physical exam. Subsequently, a urinalysis is performed to determine if white blood cells (or pus cells), or red blood cells are present. In addition, a urine culture is often carried out. This study is designed to determine if there are bacteria in the urine which can be grown in the laboratory. If the urine culture is "positive," the bacteria responsible for the infection can be identified, which permits selection of the best antibiotic for treatment.

Treatment of bladder infection begins with antibiotic therapy. Antibiotics are given for a period of time varying from 3-4 days up to 10-14 days. In addition to antibiotics, an increased fluid intake is recommended. Increased fluid causes the kidneys to produce more urine. When more urine is produced, the bladder fills more frequently and empties more often. More frequent emptying of the bladder helps to "wash out" infection from the bladder. Another useful measure to treat infection is urinary acidification.

Drinking cranberry juice or taking Vitamin C acidifies the urine, which produces a less favorable environment for bacteria.

For women who develop recurrent infections, the usual cause is repeated new episodes of bacterial infection of the bladder. There is a common misperception that recurrent bladder infection is due to an inadequately treated infection. However, repeat infection is usually due to a new episode of infection which occurs once the previous one has been treated. Several recognized initiating events can trigger infection. Two of the most common are sexual intercourse and vaginal douching. It appears that the pressure in the vaginal area which occurs at intercourse may facilitate ascent of bacteria up the urethra into the bladder. Some women report that they develop bladder infection almost every time that they have intercourse.

For women who have recurrent infections, the urinary tract is often evaluated by a urologist to determine if there is an underlying abnormality. Studies available to assess the kidneys include an intravenous pyelogram or a renal ultrasound. These are x-ray techniques which allow examination of the kidneys to determine if stones, blockages or other abnormalities are present. The bladder is best examined by cystoscopy. With this technique, a catheter is inserted into the bladder through the urethra. Using a fiberoptic light source attached to this instrument, the urologist can inspect the bladder to make sure that there are not any intrinsic problems within the bladder itself. Usually, at the same time, an assessment can be made of the degree of bladder emptying. The post-void residual is checked, which is the amount of urine left in the bladder after urinating. This is done to determine if the bladder empties completely or if it retains a large volume of urine. If any abnormalities in urinary tract are identified on these studies, appropriate treatment is carried out.

More commonly, these studies confirm that there are no intrinsic problems of the urinary tract. In these circumstances, the following program is put forth to solve the problem of recurrent cystitis. General measures which are recommended to minimize the potential for recurrent infection include increased fluid intake, frequent bladder emptying and urinary acidification. As described above, frequent emptying allows a mechanical "washing out" of the bladder which prevents bacteria from gaining access to the bladder. Urinary acidification, which is easily accomplished by taking vitamin C 250 mg twice a day, makes it more difficult for the bacteria to grow. Cranberry extract pills, taken twice a day may also help lessen the risk for infection. In addition to these general preventive measures, there are three specific approaches used as well. One approach is antibiotic suppression. A patient takes a low dose of an antibiotic once a day for a period of several months in order to keep the bladder free of infection. A second approach is prophylactic antibiotic use at intercourse. This is particularly useful for patients who develop recurrent infection after intercourse. The patient takes an antibiotic pill before or after intercourse to prevent infection from developing. The third approach is self-directed treatment. Many women can tell when they get cystitis. Antibiotics are given to them to have on hand so they can start treatment themselves once symptoms develop. The philosophy of this program is that the antibiotics are much more effective when the infection first begins than when they are used after infection has been present for several days. Patients take their antibiotic for a one to five day period once symptoms develop. This usually clears the infection. If symptoms persist beyond that point, then it is time to check in with the doctor. Antibiotics used for all three approaches include Macrobid (nitrofurantoin) and Trimpex (trimethoprim). These pills are well tolerated and safe to use in the above fashion.