

## Urinary Tract Infections in Women

*Urinary tract infections (UTIs) are one of the most common problems that occur in women. There are two types of UTIs. Lower tract infections (cystitis, bladder infection, urethritis) involve the bladder and urethra. Upper tract infections (pyelonephritis) involve the kidneys and ureters.*

### What are the causes of UTIs?

Urinary tract infections are usually caused when bacteria that normally live in our digestive system get into the bladder.

UTIs are much more frequent in women than men, largely due to anatomical differences. The nearness of the female urethral opening to the vagina and rectum makes it easy for bacteria to enter the urinary tract. Furthermore, the female urethra is only one and one-half inches long; this permits infectious organisms to ascend into the bladder, ureters, and kidneys.

### What contributes to UTIs?

Common conditions that may alter normal functioning and make you more susceptible to a urinary tract infection are:

- sexual intercourse
- poor hygiene
- pregnancy
- ignoring or resisting the urge to urinate
- lowered resistance to infection (stress, poor general health, or other illness)

### Symptoms of Lower Tract Infections

Most women exhibit some of the following:

- burning or pain on urination
- urgent need to urinate
- urinating small amounts
- frequently having to get up at night to urinate
- pressure or cramps in the middle of the lower abdomen
- occasional blood in the urine

Certain sexually transmitted diseases (STDs) and vaginal infections may cause symptoms similar to those of a urinary tract infection.

### Symptoms of Upper Tract Infections

Most women exhibit some of the following:

- fever and/or chills
- nausea or vomiting
- pain in the back or side
- fatigue
- symptoms of lower tract infection

### How are UTIs diagnosed?

To diagnose a urinary tract infection, your healthcare provider listens to your symptoms, performs an examination, and asks for a urine sample to send to the laboratory for analysis. The presence of infection fighting white blood cells, red blood cells, bacteria, or nitrites (a waste product of bacterial growth) in the urine sample confirms the diagnosis of UTI. A culture of the urine may be performed to determine the exact organism causing the infection and the best antibiotic to prescribe.

### How are UTIs treated?

You will be started on an antibiotic if your symptoms and urinalysis indicate an infection. Take ALL the antibiotic as prescribed even if symptoms disappear. Missing antibiotic doses will increase the risk that a "silent" UTI may remain and symptoms return in the future.

Drink plenty of fluids because the increased urine volume flushes the organisms from the bladder. Limit the amount of milk and fruit juices (except cranberry juice) which alkalinize the urine making the antibiotic less effective.

A bladder pain medication (e.g. phenazopyridine) is occasionally prescribed for severe burning with urination. This medication may change the color of the urine to red-orange or brown. It may also stain your clothing and contact lenses. It may be helpful to wear a light non-deodorized pad.

Upper urinary tract infections may require additional tests, longer courses of antibiotics, and sometimes intravenous medication and hospitalization.

**Because of a possible increase in pregnancy risk, patients using the oral contraceptive pill should use a condom or other backup method while taking antibiotics and for 7 consecutive active pills after finishing the antibiotics. Antibiotics may also increase your risk of getting a vaginal yeast infection.**

## **Prevent UTIs**

After having one urinary tract infection, you may be susceptible to recurrences. However, there are some things you can do to help prevent getting another UTI:

- Empty your bladder immediately after intercourse
- Wipe from front to back following urination or bowel movement
- Avoid resisting the urge to urinate
- Always empty your bladder completely and often
- Wear 100% cotton underwear
- Treat any vaginal infection promptly

Recent studies on recurrent UTIs suggest that long-term preventive antibiotics may help women with frequent recurrences. Antibiotics after intercourse may be helpful for women experiencing UTIs after

sexual activity. Your healthcare provider may want to discuss these options or perform additional tests if you have frequent UTIs.

### **Call the nurse at 863-4463 or 863-2633 if any of the following happens:**

- Symptoms do not improve in 2 days
- Fever develops or persists after 2 days of treatment
- Nausea or vomiting
- Side or back pain
- Symptoms return after treatment
- New, unexplained symptoms develop

If University Health Services is closed, go to Mount Nittany Medical Center Emergency Department or call 911 for an ambulance.

### **Test Results:**

Please call the advice nurse at 863-4463 for test results.

### **Appointments:**

Appointments can be made in person or by phone. If you are unable to keep your appointment, please call and cancel. Otherwise you will be charged for the visit.

To schedule or cancel appointments, call:

General Medicine: 863-0774

Women's Health: 863-2633

**For more information about health care issues, visit the UHS Web site at [www.sa.psu.edu/uhs](http://www.sa.psu.edu/uhs)**

This publication is available in alternative media on request.

WH\_UTI\_012804

Approved by Patient Education Committee: 1/28/04

This content is reviewed periodically and is subject to change as new health information becomes available. This information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.