

If you are like most people, you don't think about your bladder until it begins to feel full. Yet, there are many reasons why your bladder deserves attention. The more you know about it, the more likely you will be to take steps to preserve its health.

This booklet is designed to answer your questions about the bladder - what it is, how it works, what sorts of problems can develop, where to go for help or information, and what steps may help you keep your bladder healthy.

What Is the Bladder And What Does It Do?

The **bladder** is a balloon-like structure made of a thin layer of muscle around a smooth inner lining. It is located behind the pubic bone, which you can feel in the lower part of your abdomen.

The function of the bladder is to store **urine**, one of the body's liquid waste products. Normally, 1 1/2 to 2 quarts of urine are produced every day by the **kidneys** as they remove waste and water from the blood. The urine travels from the kidneys down two narrow tubes, called the **ureters**. (See illustrations below.)

As it fills, the bladder stretches. It can hold between 10 to 20 ounces of urine, roughly the amount of liquid in a can of soda. When the bladder is about half full, you begin to feel the need to empty it by urinating. (Some people say "pee," "go to the bathroom," "pass water," "void," or any of several other words or phrases that have the same meaning as the word "urinate" used in this booklet.)

Urination is controlled by the **sphincter**, a circular muscle located at the bottom of the bladder which normally stop the flow of urine. The sphincter is usually closed - like a tie around the bottom of a balloon - so that you do not leak urine. When you relax your sphincter, it opens. At the same time, the muscle of the bladder wall contracts (squeezes) and forces the urine out of the bladder. When you are finished urinating, the sphincter closes, and the bladder itself stops squeezing and relaxes.

Urine from the bladder travels out of the body through a small tube called the **urethra**. The urethra empties from an opening in front of the vagina in a woman and at the end of the penis in a man. (See illustrations on pages six and seven.)

What Can Go Wrong With the Bladder?

Urinary Tract Infections

A healthy bladder is generally free of germs called bacteria. But bacteria do cover your skin and are present in large numbers in the rectal area and in your bowel movements. Bacteria may, at times, get into the urinary tract and may travel up the urethra into the bladder. Normally,

the bladder can rid itself of these germs.

When bacteria remain in the bladder, they can cause **infection**; in other words, the germs grow there. The infection, in turn, causes **inflammation** - redness, swelling, and pain - in the bladder. The medical term for any kind of bladder inflammation, including an infection, is **cystitis**. Bladder infections are more common in women than in men.

If you have a bladder infection, the bladder will feel full when it really is not. You will have an increased urinary **frequency** - the sense that you need to empty your bladder very often.

You may also have a feeling of **urgency** - the need to urinate immediately - and some urine may even leak onto your clothing if you don't reach a bathroom right away. You may also feel generally tired. You should *not* have a fever or chills. If you do, this suggests that the kidneys may be infected, and you should get medical care promptly.

If not treated, a bladder infection may spread to the kidneys. The signs of a kidney infection include back pain under the lower ribs, a high fever, chills, and an overall sick feeling. This type of infection can damage the kidneys and can be life-threatening if it gets into the bloodstream.



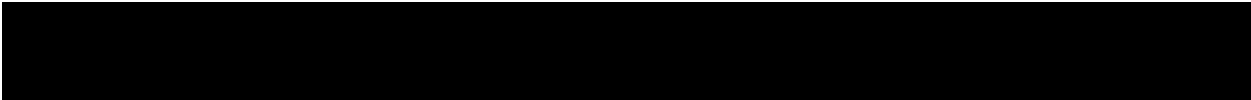
FACTS ABOUT URINARY TRACT INFECTIONS:

! *Every year, 8 to 10 million visits to doctors in the United States occur because of urinary tract infections.*

! *Women are more prone to urinary tract infections than are men or children.*

! *The bacteria that cause urinary tract infections are treated with bacteria-fighting drugs called antibiotics.*

! Prompt treatment of a bladder infection may prevent development of a more serious infection.



Only a doctor should decide whether you have a urinary tract infection and, if so, what type you have. The physician does this by reviewing your symptoms and by testing your urine. Urinary tract infections are usually easy to cure with **antibiotics**, special drugs that kill bacteria or stop their growth. People who think they might have an infection should see a doctor promptly.

*A urinary tract infection in a man or child may be the sign of an abnormal urinary system or other health problem. For this reason, when men or children are found to have such infections, they should be seen by a **urologist** for additional tests and x-rays. A urologist is a doctor who*

specializes in diseases of the male and female urinary systems and the male reproductive system.

A woman who suspects that she has a urinary tract infection should consult a urologist, family doctor, or **gynecologist**. *Any person who has frequent, recurring, or long-lasting urinary tract infections should see a urologist. If you see blood in your urine, you should see a urologist right away.* Because this condition is not necessarily caused by an infection, it may mean that you have a different urinary tract problem.

Interstitial cystitis

Interstitial cystitis (IC) is a painful condition that can feel so much like a bladder infection (cystitis) you may be certain that you have one. Yet, the urologist's tests will not turn up any signs of bacteria because germs do not cause IC. In fact, the cause of IC is not known.

What the urologist can identify are the symptoms of IC. These include:

! *pain and pressure* - in the bladder, urethra, or pelvic area

! *urgency* - You may feel as though your bladder will burst if you don't get to a bathroom right away. When you do get there, you may find that your bladder actually contains very little urine.

! *frequency* - People with IC always seem to know where the nearest bathroom is located because they feel as though they need to go so often. Some people with IC are unable to travel, even to the local market, due to their very frequent need to urinate. During periods when IC symptoms are at their worst, patients may have to urinate as often as every half hour - or more often than that - day and night.

If these symptoms affect you or someone close to you, IC may be the problem. As many as 450,000 women in the U.S. may have IC. It is 10 times more common in women, but men should be aware of this condition as well. Many people live with the symptoms because they have been told that nothing is physically wrong, that the problem is "in your head."

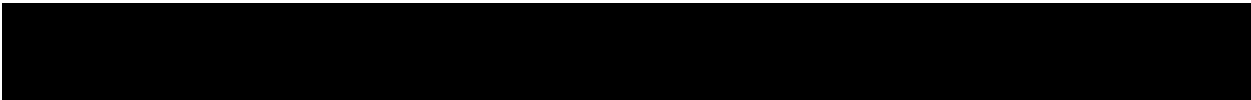


FACTS ABOUT INTERSTITIAL CYSTITIS:

! *As many as 450,000 U.S. women may have IC, a condition that is much less common in men.*

! *The symptoms of IC are pain and pressure in the bladder, urethra, and pelvic area, as well as increased urinary urgency and frequency.*

! *The disease can be treated, but not cured. In fact, the cause of IC is not known.*



Why does the bladder hurt?

In IC, the bladder lining and wall become irritated. When severe irritation (inflammation) occurs, pain results. The inflammation may progress and cause scarring of the bladder wall. This scarring, in turn, may shrink the bladder so that it holds much less urine than is normal.

How is interstitial cystitis diagnosed?

The

The

M

! *Overflow incontinence* occurs when the bladder is allowed to become so full that it simply overflows. This happens when bladder weakness or a blockage prevents normal emptying. An enlarged prostate (the male gland surrounding the urethra) can result in such blockage. For this reason, overflow incontinence is more common in men than in women. Bladder weakness can develop in both men and women, but it happens most often in people with diabetes, heavy alcohol use, or decreased nerve function.

FACTS ABOUT URINARY INCONTINENCE

! *Leaking urine is not normal in adults*

! *As many as 10 million U.S. men and women over age 60 have some problems with leaking urine.*

! *Urinary incontinence can be controlled; treatment generally does not require surgery.*

Is there help for a person who leaks urine?

Yes. Your physician may send you to a urologist or gynecologist. Getting expert help does not mean that an operation will be necessary. The treatments most commonly recommended are medicines, special exercises, bladder training, and other techniques that help promote bladder control. Surgery is generally successful but is used only after other treatments have failed or have proven unsatisfactory.

Bladder Cancer

Cancer is a word that frightens most people. Cancer is an abnormal growth that can occur almost anywhere in the body, including the bladder. Bladder cancer need not be particularly frightening, however, because it is usually curable when discovered and treated early.

How common is bladder cancer?

This year, bladder cancer will be found in more than 50,000 Americans. It is most common in people 50 to 70 years of age. Men with bladder cancer outnumber women with the disease by a ratio of three to one.

What causes bladder cancer?

The exact cause of most bladder cancer is unknown. Cigarette smokers and workers who are exposed to certain unusual chemicals have a higher risk of the disease. Bladder cancer starts as a small growth in the bladder lining. At this stage, the condition is generally easy to treat. If the cancer is allowed to grow into the bladder muscle or through the bladder wall, treatment becomes more difficult. But even then, a

cure is possible.

What are the signs of bladder cancer?

Blood in the urine is the most common sign of bladder cancer. If you see blood in your urine, even if it seems to disappear after a few days, visit a urologist promptly. When bladder cancer is a possibility, the urologist finds out by: observing your urine with a microscope; examining your bladder with a cystoscope (and possibly removing some abnormal tissue for closer inspection); and viewing your urinary system with x-rays.

FACTS ABOUT BLADDER CANCER

! *This year, bladder cancer will be found in more than 50,000 Americans, most between the ages of 50 and 70 years.*

! *Early bladder cancer is rarely fatal. Prompt detection is a key to successful treatment.*

! *Treatment of early bladder cancer does not require removal of the bladder.*

Can bladder cancer be cured?

Yes. The first step is usually to remove the tumor. This procedure is performed with a cystoscope-like instrument, which is inserted through the urethra while the patient is asleep under anesthesia. Once the tumor has been removed and examined with a microscope, the urologist will know whether to recommend additional treatment. Even if no further treatment is necessary, regular follow-up examinations are essential. During these visits, the doctor checks to make sure that the tumor has not returned. If it has returned, the same treatment generally is repeated.

What Steps Can You Take to Help Keep Your Bladder Healthy?

The following are steps you can take to help keep your bladder healthy and reduce your risk of getting bladder cancer:

! Have a complete annual checkup, including a test of your urine for blood.

! Consult your doctor at the first sign of a problem, particularly if you see blood in your urine, but also if you have pain on urinating or increased urinary frequency or urgency.

! Don't smoke - smokers are two times more likely than nonsmokers to get bladder cancer.

! Some studies have suggested that daily consumption of a variety of fruits and vegetables may be

associated with a lower risk of bladder cancer.

! When you feel the urge to urinate, don't wait too long before emptying your bladder.

! Don't rush - take the time when you urinate to empty your bladder completely.

! Respond to your body's signals of thirst by drinking enough water or other liquids (usually four to six glasses) every day.

! Urinate after having sex.

! Avoid exposure to potentially harmful chemicals.

For further information about these bladder problems, contact:

BLADDER HEALTH COUNCIL

c/o American Foundation for Urologic Disease

300 West Pratt Street, Suite 401

Baltimore, MD 21201

800-242-2383

You may also wish to contact the following organizations for specific information on:

INFECTION:

National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC)

Box NKUDIC

Bethesda, MD 20892

301-468-6345

INCONTINENCE:

Help for Incontinent People (HIP)

P.O. Box 544

Union, SC 29379

803-579-7900 or 800-BLADDER

The Simon Foundation for Continence

P.O. Box 835

Wilmette, IL 60091

800-23-SIMON (Patient Information)

708-864-3913 (Headquarters)

INTERSTITIAL CYSTITIS:

The Interstitial Cystitis Association

P.O. Box 1553

Madison Square Station
New York, NY 10159-1553
212-979-6057

BLADDER CANCER:
American Cancer Society
1599 Clifton Road, N.E.
Atlanta, GA 30329
800-ACS-2345

Cancer Information Service
National Cancer Institute
550 N. Broadway, Room 307
Baltimore, MD 21205
800-4-CANCER