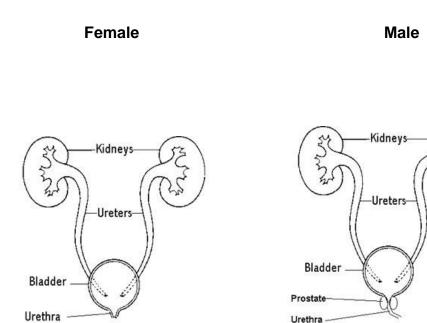
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# **Interstitial Cystitis**

## Introduction

This text is for people who have interstitial cystitis and for their family, friends, and coworkers who want to understand the experiences and challenges associated with the disorder. It contains information on the causes, diagnosis, and treatment of interstitial cystitis as well as information on current research studies that aim to understand and treat the disorder.

Basic and clinical research is advancing our knowledge of interstitial cystitis, but the disorder still poses many questions that scientists cannot answer. Only further research and the efforts of patients and doctors working together will shed light on improved treatments and, ultimately, a cure for this debilitating disorder.



Anatomy of the Urinary Tract

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The urinary system consists of the kidneys, ureters, bladder, and urethra. The kidneys, a pair of fist sized organs, are located below the ribs toward the middle of the back. The kidneys remove liquid waste from the blood in the form of urine, and keep a stable balance of salts and other substances in the blood.

Narrow tubes called **ureters** carry urine from the kidneys to the bladder in the lower abdomen. Like a balloon, the bladder's elastic walls relax and expand to store urine and contract and flatten when urine is emptied through the urethra.

(Note: In the male, the urine goes through the prostatic portion of the urethra before entering the penile urethra.) The typical adult bladder can store about 1 1/2 cups of urine (12 ounces) but with a great deal of variability from patient to patient.

Adults pass about a quart and a half of urine each day. The amount of urine varies, depending on the fluids and foods a person consumes. The volume formed at night is about half that formed in the daytime. (Note: Although as one ages more urine may be created at night even without taking in fluids. Many older people develop swollen feet or legs during the day. The swelling represents water and salt that it urinated out at night.)

Normal urine is sterile. It contains fluids, salts and waste products, but it is free of bacteria, viruses and fungi. The tissues of the bladder are isolated from urine and toxic substances by a coating that discourages bacteria from attaching and growing on the bladder wall.

# Definition

Interstitial cystitis (IC) is a chronic inflammation of the bladder wall. The bladder holds urine ready to be released from the body. IC can affect people of any age, race or sex.

## Cause

The cause of interstitial cystitis remains unknown. "Common" cystitis is a urinary tract infection caused by bacteria. It usually is successfully treated with antibiotics. Doctors do not believe bacteria cause IC. IC does not respond to antibiotic therapy. IC is not a psychosomatic disorder. And it is not caused by stress.

# At-Risk Groups

IC is most commonly found in women.

## Symptoms

Some or all of these symptoms may be present:

- **Frequency**, urinating up to 60 times a day in severe cases. It may occur during the day or at night. Frequency may be the only symptom in early or very mild cases of IC.
- **Urgency**, the sensation of having to urinate immediately. It may be accompanied by pain, pressure or spasms.
- Pain in the abdominal, urethral or vaginal area. Pain is often associated with sexual intercourse.
- Some patients also report other symptoms, such as muscle and joint pain, migraines,

allergic reactions, and colon and stomach problems. Doctors do not know if there is any connection between IC and these other ailments.

### Diagnosis

Your health care provider will ask about your symptoms, past medical history and any medications you take. Most IC patients have difficulty obtaining a diagnosis. You will likely be referred to a **urologist**, a doctor specializing in the treatment of urinary tract conditions. He or she will:

Take urine cultures to check if there is a bacterial infection.

Rule out other diseases and/or conditions that have symptoms resembling IC. These diseases may include bladder cancer, kidney problems, tuberculosis, vaginal infections, sexually transmitted disease and other disorders.

Perform a **cystoscopy**, a test that allows the doctor to look inside the bladder using a thin, flexible tube. During the procedure, the doctor can remove tissue from the bladder wall and order a biopsy of the specimen.

Cystoscopy may be performed if no infection is present and no other disorder is discovered. Cystoscopy during a routine office visit may not reveal the abnormal tissue that is common with IC. It usually is necessary to distend the bladder under general anesthesia. This allows the doctor to see pinpoint bleeding on the bladder wall, the hallmark of this disease.

### Treatment

There is no cure for IC, just as there are no treatments that work for everyone. Therapies used to relieve symptoms include:

- **Bladder distension**, stretching the bladder by filling it with water while the patient is under general anesthesia.
- Oral medications, including anti-inflammatory drugs, antispasmodic drugs, antihistamines, muscle relaxants, antidepressants and a drug that protects the lining of the bladder
- Introducing medication directly into the bladder through a catheter to decrease inflammation or protect the bladder lining and relieve pain.
- Dietary changes to avoid certain foods that may increase the severity of IC symptoms
- **Bladder training**, gradually lengthening the amount of time between urinations.
- Tens unit (transcutaneous electrical nerve stimulation) is a device worn externally to relieve pain. It may help relieve symptoms in some people.
- Surgery, which may include removing the ulcers (sores) in the bladder or enlarging the bladder. In severe cases, the doctor may remove the bladder and reroute urine through a new external opening or a new bladder.

### Tips

• Avoid foods and beverages that can irritate the bladder. These include tomatoes, spicy foods, citrus juices, foods high in acids, chocolate, coffee, tea, colas and other

beverages with caffeine, and alcohol.

- Do not smoke.
- Try gentle exercise, such as stretching, walking, Tai Chi or low-impact aerobics.
- Practice stress-reduction techniques. Stress may increase symptoms.
- Apply cold or warm packs to the painful area. Always place a towel between the cold or hot pack and skin. Keep the pack on for no more than 20 minutes. Do not apply another until the skin returns to normal.
- Wear loose-fitting clothing.

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