

# **Interstitial Cystitis (Chronic Pelvic Pain)**

Consultation Information



[www.urologyaustin.com](http://www.urologyaustin.com)

# What is Interstitial Cystitis (IC)?

Interstitial cystitis, or painful bladder syndrome is an inflammatory process of the bladder that can cause recurring pain or discomfort in the bladder and other pelvic organs. This diagnosis is made after other causes for these symptoms are excluded, such as a urinary tract infection (UTI), bladder stone, or bladder cancer. Patients may have symptoms of bladder pain, pain with urination, urgency, or frequency. Some individuals with IC may experience pelvic pain and/or vaginal pain. Women may have pain with intercourse.

For men, because the prostate is a part of the urinary tract, there often is overlap between the discomfort in the bladder and the prostate. This may cause pain in the prostate, pain with ejaculation, pain with urination, pain in the perineum or rectal area. For this reason, the term chronic prostatitis or chronic pelvic pain is often used instead of interstitial cystitis.

Recently, the term chronic pelvic pain has been used more commonly for both men and women. In 2008, the National Institute of Health funded a research project to study the causes and potential treatments of IC and chronic prostatitis. This research group, called the Multidisciplinary Approach to the Study of Chronic Pelvic Pain, recognized that people with IC often have other chronic pain syndromes, such as fibromyalgia, irritable bowel syndrome, or chronic fatigue syndrome. This suggests a common underlying process for these disorders. Their research looks at the body as a whole instead of only the bladder or prostate, which is why the term chronic pelvic pain is used instead.

## Who is affected by IC/PBS?

Studies show that approximately 3.3 million women and 1.6 million men in the United States are affected by IC. It is more common in women, affecting 9 women for every 1 man. The average age of diagnosis is around 40. People with IC are twice as more likely to have had a urinary tract infection and 10-12 times more likely to have had bladder problems as a child. Unfortunately, people with IC are also more likely to have other inflammatory diseases such as allergies, lupus, fibromyalgia, irritable bowel syndrome.

## What causes IC?

The cause of interstitial cystitis is unknown, but is believed to be related to increased inflammation and sensitization of the bladder. Usually an initiating event occurs, such as a UTI, which causes irritation of the bladder lining. This triggers the release of inflammatory proteins which make the bladder lining “leaky” allowing even more irritation and inflammation. Unfortunately, this additional inflammation causes release of even more inflammatory proteins. These signal the spinal cord sending an intensified pain response. Because patients with IC are more likely to have other inflammatory diseases, some think that the cause of these disorders may be an impairment of the body’s ability to respond normally to inflammation.

# Initial Patient Evaluation

## History

At your first visit, your doctor will try to get a good understanding of your symptoms and when they are most bothersome. He/she will ask questions to ensure there is no other reason for your symptoms, such as a bladder stone, infection of bladder or prostate, or possible bladder tumor. A prostate exam for men and pelvic exam for females will often be performed to ensure no abnormalities, which may be causing your symptoms.

## Labs

### *Urinalysis or urine culture*

A clean catch or catheterized urine sample will be collected and analyzed to determine if you have a urinary tract infection, blood, or other abnormality in your urine. If infection is suspected, the urine sample will be sent for culture.

### *PSA*

For men with prostate symptoms, a blood test may be done to screen for prostate cancer.

### *Post-Void Residual*

An ultrasound will be placed over the lower abdomen to measure the amount of urine remaining in the bladder after you have voided.

# Further Evaluation

## Cystoscopy

If you have a history of blood in your urine or risk factors for bladder cancer, cystoscopy may be used to ensure no abnormalities within the bladder. While you are awake, lidocaine lubricant will be used to numb the urethra. A small camera (the cystoscope) is then inserted into the urethra. The doctor will take a quick, thorough look within the bladder. This usually takes 1-2 minutes. You may feel some pressure in the bladder or need to urinate during the procedure. It is normal to have some blood in your urine for several days or discomfort when urinating after this procedure. There is a small risk of infection (<3%) with any instrumentation of the urinary tract. If you have worsening pain, fevers, or blood in your urine, please contact our office because you may need treatment with antibiotics.

# Conservative Treatment

## Behavioral therapy

Once you are diagnosed with IC, the first step in treatment is to adapt changes to your lifestyle, which reduce your symptoms. For example, once you identify the situations (stress, cold/flu, menstruation, intercourse, hormone changes, diet, dehydration) that cause flares in your symptoms, try to implement a treatment plan to prevent flares during these times.

## Dietary modifications

Try to limit foods that irritate the bladder such as carbonated or alcoholic beverages, acidic, and spicy foods. Most patients quickly realize that simple diet changes can make a big difference in reducing symptoms. A food app is available for your phone on the [ic-network.com](http://ic-network.com) website to help select foods that will not irritate your bladder. See the list below to help with your diet choices ([ic-network.com](http://ic-network.com) 2012 food list).

## Physical Therapy

Physical therapy focuses on both strengthening and relaxing the pelvic floor muscles. These muscles support the bladder, reproductive organs, and rectum. Exercises of the pelvic floor can help with reducing pain, pain with intercourse, and improve bladder control. In a study where patients completed 10 weeks of physical therapy, 60% had significant improvement in their IC. In addition, some patients have also found benefit with acupuncture.

## Medications

Because symptoms of IC are caused by irritation and inflammation of the bladder, different types of medications are used to target these symptoms and their causes. Below is a brief overview of these types of medications. There are certainly other medications which may be beneficial not described here. Your doctor will discuss these medications and their side effects, and which ones they feel may benefit you the most. It is not uncommon to need more than one medication, especially when first diagnosed with IC.

For example, Elmiron is a medication used to help build up the lining of the bladder to reduce bladder irritation and nerve sensitization. Elmiron may take up to 3-6 months before improvement is seen. Other medications, such as antihistamines (Hydroxyzine) are used to reduce the release of inflammatory proteins. Anticholinergics (Detrol, Vesicare, Toviaz, etc.) and beta-agonist medications (Myrbetriq) help to relax the bladder and reduce symptoms of urgency and frequency. For symptoms of bladder pain, medications such as Pyridium or Uribel can help soothe the bladder. Other medications to help with pain include NSAIDs (Ibuprofen) and Gabapentin. Amitriptyline is a medication that helps with bladder relaxation and pain. Some herbal medications have also been shown to improve symptoms. Cystoprotek has been used for its anti-inflammatory properties and may help the bladder lining to heal. Other natural supplements include Desert Harvest Aloe Vera, Marshmallow Root, baking soda, Quercetin, Colostrum, Uva Ursi, and Dandelion Root. You may find that acidic foods or drinks exacerbate your IC symptoms. Prelief may be recommended to take with meals. Prelief is an over-the-counter acid reducer that can take the acid out of your food and drinks. For chronic prostatitis patients, medications such as Rapaflo or Flomax are used to help relax the muscles of the bladder and prostate making urination easier.

## ***Conservative Treatment continued***

### **Bladder Instillations**

In addition to oral medications, bladder instillations using a liquid compound of medications (such as lidocaine and heparin) can be used to help with pain relief and inflammation. A catheter is gently placed in the bladder and the fluid is instilled in the bladder. Depending on the patient's response, this is done as frequently as 1-3 times per week, often for 6 weeks. If a patient is comfortable with catheter placement, this is something they may choose to do at home during flares.

### **Hormone replacement**

Estrogen is an important treatment for women because it helps to maintain the integrity of muscular and connective tissue especially in tissues with higher numbers of estrogen receptors such as the vagina, urethra, and bladder. These tissues are particularly vulnerable once estrogen levels begin to decrease. The thinning and weakening can cause symptoms of frequency, urgency, incontinence, dryness, itching, and burning. Replacing estrogen may be effective at relieving some symptoms associated with IC. It may be given in various forms including oral, absorption through the skin (transdermal), and local (topical).

### **Topical therapies**

Because common symptoms of IC include vaginal or vulvar pain, pain in the perineum, and painful intercourse, some topical treatments in the form of vaginal suppositories or creams can be directed at these tissues to help with pain and discomfort. Typically a compounding pharmacy will combine lidocaine and muscle relaxers. In addition, some patients have found topical use of medications which block nerve pain pathways, such as Amitriptyline or Gabapentin, effective. Direct application of estrogen to vaginal and urethral tissue has been shown to increase tissue integrity and strength, often reducing IC symptoms, as well as pelvic prolapse, overactive bladder, incontinence, and decreasing the incidence of UTIs.

## **Surgical Treatment**

### **Hydrodistention**

Hydrodistention is a procedure used to distend, or stretch the bladder by filling it to its capacity with water. This is performed in the operating room under general anesthesia to ensure the patient is comfortable. During hydrodistention, the doctor can identify lesions, or small ulcers that are characteristic of interstitial cystitis. The process distending the bladder also helps to reduce pain and urgency associated with IC. We think patients feel better after this procedure because stretching the bladder helps to "quiet" some of the nerves that are irritated in the bladder and also by increasing the capacity of the bladder. The doctor also may perform a bladder biopsy or fulgurate any abnormal areas seen at the time of the procedure. Often this is performed when a patient is first diagnosed and is repeated if the procedure provided relief. When patients find relief with this surgery, it often is repeated every 4-6 months, or when their symptoms return.

## ***Surgical Treatment continued***

### **Sacral Neuromodulation (Interstim)**

Interstim stimulates the sacral nerves, which control the bladder and muscles of the pelvic floor. This is currently being used to help reduce bladder urgency, frequency, urge leakage, and retention not associated with obstruction. A test stage is conducted to assess patient improvement. With a 50% or greater improvement in symptoms, your doctor will discuss proceeding with long term therapy. In previous studies, IC patients had a 72% improvement in symptoms 50 months after placement of Interstim.

### **Botox Bladder Injections**

Botox has been used for several years now to help patients with urgency, frequency, and urgency leakage. It may also reduce pain brought on by bladder spasms. Many IC patients have these symptoms, and will benefit from this therapy. This is a procedure that can be performed in the office or operating room. Numbing medicine is first placed into the bladder. Botox is then injected into multiple sites within the bladder through the cystoscope. It usually takes 1-2 weeks to see the most improvement from the botox. Most patients benefit from this for 6-9 months.

## **Prelief FAQ**

### **What is Prelief?**

Prelief is a safe, effective over-the-counter product that removes the acid irritant from foods and beverages. Prelief helps prevent the discomfort of food-caused heartburn and other food acid problems before they happen. In addition, each Prelief tablet delivers 6.4% of your calcium RDI, with uniquely absorbable calcium - far more available than from calcium carbonate. The calcium in Prelief is as readily available as the calcium in milk.

### **Why is reducing the acid in food necessary?**

Many people are highly sensitive to food acid. For some, food acid can cause heartburn. In many cases of acid discomfort, the problem lies with obvious or unsuspected food acid. Removing the acid irritant from the food will allow most people to stay comfortable.

### **How is Prelief different from the acid blockers?**

Prelief is the only acid fighter that is designed to take irritating acids out of the foods you eat, while leaving your protective stomach acid untouched. This is important because stomach acid is essential to both your digestion and your body's defense mechanism against bacteria; stomach acid is actually a first stop in the body's germ-defense system.

### **How do you use Prelief tablets or powder?**

Take two tablets with each meal, snack, or beverage. Two tablets are usually sufficient to remove acid, but more can be taken if needed. The recommended use is 1/4 teaspoon of powder to each serving of food or beverage. More can be used if needed.

### **What is the Prelief hotline?**

The Prelief hotline is the toll-free number that provides you with product information, mail order service and the names of stores that carry Prelief. The Prelief toll-free hotline, 1-800-994-4711, is available weekdays from 9:00 a.m. to 5:00 p.m., EST.

# Bladder Diet

Some healthcare professionals believe that dietary changes may be able to alter urinary symptoms in patients with irritated voiding symptoms, urgency-frequency symptoms, urethral syndrome, and interstitial cystitis. It is quite logical that foods that decrease the urinary pH and make the urine more acidic are very likely to increase urinary urgency and frequency by irritating inflamed areas of the bladder and urethra and/or sensitizing stretch receptors. Food which are high in arylalkylamines may also irritate the bladder. In addition, patients may have specific food allergies which may also cause increased urinary symptoms. Removing these foods from a patient's diet may alter normal values of some metabolites and petrochemical transmitters in patients with these syndromes but not in normal control.

For patients interested in dietary alterations, we recommend that you try to avoid all of the following acidic foods whenever possible. These include:

All alcoholic beverages	Coffee	Pepper
Apple juice	Cranberries	Pineapple
Apples	Grapes	Plums
Ascorbic acid	Guava	Strawberries
Cantaloupes	Lemons	Tea
Carbonated beverages	Lemon juice	Tomatoes
Chili	Lime	Vinegar
Citrus Fruits	Nectarines	
Oranges	Peaches	

In addition, foods that are high in Arylalkylamines (Tyrosine, Tyramine, Tryptophan, Aspartate and Phenylalanine) should potentially be avoided. These include:

Avocados	Corned Beef	Prunes
Bananas	Cranberries	Raisins
Beer	Fava Beans	Rye Bread
Brewer's yeast	Lima Beans	Saccharin
Canned figs	Marmite	Sour cream
Champagne	Mayonnaise	Soy cream
Cheeses	<u>Nutrasweet</u>	Soy sauce
Chicken livers	Nuts	Vitamins B&C
Chocolate	Onions	Wines
Corned Beef	Pickled herring	Yogurt
	Pineapple	