

Interstitial Cystitis and Dietary Impact

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There is increasing evidence that certain food items can exacerbate symptoms of interstitial cystitis (IC). This article discusses possible trigger foods and how an elimination diet can help patients with IC reduce symptoms and improve their quality of life.

Interstitial cystitis (IC) is a condition resulting in chronic pain or discomfort in the bladder and surrounding pelvic region. The clinical presentation typically includes:

- Urinary frequency and urgency (more than 8 voids per day).
- Nocturia (more than 2 voids during the night).
- Bladder and/or pelvic pain (more than 75% of women with chronic pelvic pain also complain of irritation when voiding).

These symptoms exist in the *absence* of infections or other well-defined etiology. In fact, the urine analysis and urine cultures of IC sufferers are negative.

Bladder pain syndrome (BPS) or painful bladder syndrome (PBS) are terms being used more frequently to describe the condition in persons whose symptoms don't strictly fit the diagnostic criteria for IC. Any urinary pain that cannot be attributed to other causes, such as an infection or urinary stones, generally receives the diagnosis of IC/BPS or IC/PBS.

The precise prevalence of IC is unknown, but IC is thought to be underdiagnosed and may affect 3 to 8 million women in the United States, according to the RAND Interstitial Cystitis Epidemiology study. Although IC can develop in both men and women, about 90% of patients with IC are women.¹ The group of women most affected by IC are premenopausal white women. The median age range of persons with the disease is 42 to 46 years, but IC can occur in women of any age.

Less than 10% of patients with IC have the classical, or ulcerative, type, which is associated with large erythematous patches, known as Hunner's patches. These can be seen cystoscopically and sometimes present as ulcers or fissures. However, most women have the nonclassical, or nonulcerative, type, which is characterized by glomerulations and a lack of ulcerations on cystoscopy.

IC is generally a diagnosis of exclusion. That is not to say that other pathologies must first be ruled out (eg, bladder cancer, endometriosis, and genitourinary infections), especially if the clinical presentation is straightforward. However, eliminating other more serious causes of the presenting symptoms may be needed in more complex cases.

The clinical presentation of IC varies; 16% of women only have pain, 30% only have frequency, but most patients have *both* pain and frequency. The pain may be suprapubic, vaginal, urethral, perineal, groin, or lower back. Many of our IC patients will call and say they have another "UTI" because of the overlapping symptomatology. Unfortunately, they often are treated unnecessarily and repeatedly for bladder infections before the actual etiology is determined to be IC. Symptom flare-ups are common, and in women tend to occur around menstruation or sometimes after sexual intercourse. However, every woman experiences IC differently.

IC can have a significant impact on quality of life. Urinary frequency in patients with IC averages 16 times a day but may be upwards of 40 to 60 times per day. Depression is common in patients with IC, and work life, family life, and sexual health are also diminished.

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Dietary Triggers

While treatment for IC/BPS is focused on symptom relief, we now know much about dietary

“triggers” of IC. If properly managed, many patients can prevent flares by avoiding such comestibles (an item of food).

Much of the dietary information came from a study that analyzed the affects of 344 different consumables, including food, drinks, supplements, condiments, and spices in regards to IC symptoms.¹ Study data was gathered from 598 members of the Interstitial Cystitis Association who completed a Web-based questionnaire between April 2009 and February 2010. Researchers found that 95.8% of respondents reported that they are affected by certain foods and drinks, which were scored on a symptom scale ranging from 0 to 5, with 5 representing the most severe symptoms. The food items that tended to exacerbate symptoms included the following:

- Citrus fruits: grapefruit, lemon, orange, pineapple, cranberry juice.
- Tomatoes, tomato products, hot peppers, vitamin C.
- Artificial sweeteners: aspartame (NutraSweet, Equal) and saccharin (Sweet’N Low).
- Spices: horseradish, vinegar, monosodium glutamate (MSG).
- Spicy foods: Mexican, Thai, Indian.
- Alcohol: beer, white wine, red wine, champagne.
- Beverages: coffee (both caffeinated and decaf), tea (caffeinated), carbonated drinks (cola, non-cola, and caffeine-free).

On the flip side, the study found that calcium glycerophosphate (Prelief by AkPharma Inc) and sodium bicarbonate (baking soda) actually improved symptoms. It has been suggested that use of calcium glycerophosphate or baking soda before consuming trigger foods may help reduce sensitivity.²

What Causes Food-Related Flare-Ups?

The pathological mechanism considered to be responsible for the relationship between dietary intake and flare-ups involves bladder epithelial dysfunction, which can lead to the migration of urinary solutes across the urothelium. This migration subsequently provokes IC/BPS symptoms.³ Specific alterations in the glycosaminoglycan layer of the bladder, dysregulation of other proteoglycans, tight junctions, and cell adhesion proteins result in the disruption of the urothelial barrier, hence allowing normally innocuous substances, such as dietary metabolites, to become noxious stimuli.

Determining Bladder-Friendly Foods

The good news for our patients is that most foods do *not* exacerbate IC/BPS. As clinicians, we should encourage patients with IC/BPS to try an “elimination diet,” whereby patients keep diaries of food intake, voiding, and pain to track edibles and bladder symptoms. This can be done over a 3-week period by starting with “bladder friendly” foods and slowly introducing potential offenders so patients ultimately recognize which food and drinks to avoid.

Some food/beverages identified to be least bothersome include the following³:

- Beverages: water, whole and low-fat milk.
- Noncitrus fruits: bananas, pears, raisins, blueberries, melons.
- Vegetables: broccoli, Brussels sprouts, cabbage, carrots, celery, cucumber, mushrooms, peas, potatoes.
- Meat/fish: chicken, eggs, turkey, pork, shrimp, tuna, salmon.
- Grains: oats, rice, pretzels, popcorn.

IC/BPS is a chronic and sometimes debilitating condition for many young women, but it can be managed with a mindful diet that is still nutritionally sound. In this setting, an ounce of prevention is worth more than a pound of cure.

References:

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