

# VISION

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## **Dietary modifications for improving Interstitial Cystitis Pain**

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Dietary modifications have been developed for many chronic pain disorders. Irritable bowel syndrome, inflammatory bowel disease, and vulvodynia are just a few of the disorders for which dietary restrictions have demonstrated symptom relief for patients. Management of interstitial cystitis (IC) focuses on reducing the symptoms of urinary frequency, urgency and pain. According to the IC database, dietary modification was reported to be the fourth most common therapy. As many patients and clinicians grow frustrated with treatment options available for IC, increasing use complementary approaches such as dietary modification can actually help give patients a regained sense of control over their disorder.

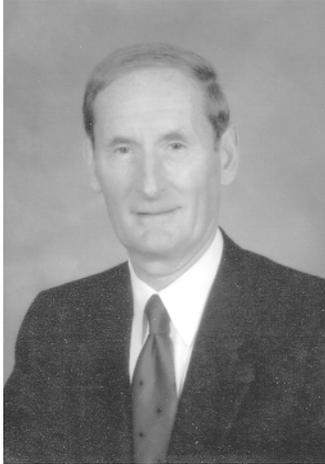
The IC diet was initially formed by compiling lists of foods that patients reported as causing "flare ups" of their IC symptoms. A list emerged of foods that stimulate histamine and serotonin release in the stomach. Also, foods high in tryptophan, phenalanine, tyrosine and tyramine or arylalkylamine containing foods are included in this list (Table 1). Unfortunately, the mechanism by which these foods aggravate IC symptoms is unknown. Gillespie studied blood work and 24-hour urine collection on 250 IC patients who ingested a high arylalkylamine diet. Ten people without IC were selected as controls and followed the same diet. She found an increase in metabolites of tryptophan in the urine of the IC patients, a result that was not found in the control group.

These same metabolites have been demonstrated in another study to bind to polysaccharides in the glycosaminoglycan layer of the bladder epithelium. Continuing research needs to be done to further determine the impact of dietary substances on bladder inflammation.

As patients are initially dealing with the diagnosis of a chronic pain syndrome dietary modification can be difficult to introduce. Patients who are having difficulty coping and who are already feeling a sense of loss, may find it unbearable to relinquish the few indulgences that they feel they still have, such as chocolate or coffee. We have found at our center, that it is helpful to have a practitioner dedicated to nutrition, to help patients cope with changes to their diet and to find healthy alternatives that are "bladder safe". Patients may find frustrating idiosyncrasies in their diet as they are able to eat an apple one day but not the next. Once patients start following the dietary modifications little is often needed for enforcement as many patients suffer when they deviate from their new restricted diet.

When first introducing dietary changes, patients are recommended to completely avoid all aggravating foods for at least two weeks. After two weeks the patient may attempt to slowly introduce foods which were restricted, trying a new food no more often than every four days. This enables the patient to determine which foods must truly be avoided. Some patients may

## The President's Perspective



*Jerome M. Weiss, M.D. • President*

The President's Perspective affords me the opportunity to emphasize an aspect of pelvic pain that I believe is of major significance to all of us. The symptoms from pudendal nerve entrapment (PNE) cross all of our areas of specialization. When the pudendal nerve (which innervates all of the pelvic floor muscles and skin) is injured, the resultant muscle spasm can create urinary urgency/frequency, perineal, vulvar, anal, clitoral/penile and buttock pain. Since examinations are usually negative, patients go from one doctor to another and receive many unsuccessful forms of non-invasive and invasive therapy.

I have been aware of the problem for many years, but it is only within the last year that I have come to see its magnitude. In my practice I have seen approximately sixty patients with PNE, some of whom have been misdiagnosed by up to 38 physicians or other health care providers. My concern is that if I have so many of these patients, how many are being missed nationwide? However, like any other medical condition, the primary step in diagnosis is to think about it as a possibility.

The first signal that PNE might exist is when a patient gives a history of pain in the area of the pudendal nerve innervation that is initiated or worsened by sitting and improved with standing or when sitting on a toilet seat. The second signal involves the events that preceded the symptoms. The pudendal nerve trunk enters the pelvis in a narrow pinch between the sacrospinous and sacrotuberous ligament prior to entering Alcock's canal inside the ischial tuberosities. Prolonged sitting on a bicycle seat, perineal trauma, pelvic surgery, or heavy straining are among the many events that can traumatize the nerve and result in inflammation, swelling, fixation and compression.

The above history should direct the practitioner to examine the course of the pudendal nerve from the ischial spine to Alcock's canal. If tenderness is elicited, a diagnosis of PNE is probable and requires electrophysiological testing (pudendal nerve motor latency test) for confirmation.

Reports in the literature indicate that two thirds of PNE patients can be significantly improved or cured with either pudendal nerve blocks employing steroids or with surgery. My own treatment bias, which is under study, is to add pelvic floor manual therapy for nerve mobilization and correction of myofascial dysfunction, in the hope of attaining higher cure rates.

Dr. Stanley Antolak will present a more detailed discussion of PNE at our next meeting in Banff Springs August 14-16, 2003.

Sincerely,

Jerome M. Weiss, M.D.  
President, International Pelvic Pain Society

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find that they can tolerate a food from the restricted list. Sometimes restricted foods can only be tolerated on a rotating or once a week basis.

For patients who experience an increase in IC symptoms from eating food with a high acid content, calcium glycerophosphate (Prelief®) has demonstrated relief (Table 2). A prospective, non-randomized study of 203 patients demonstrated that calcium glycerophosphate (Prelief) helped reduce IC symptoms among patients who ingested foods that would regularly exacerbate their IC symptoms. Symptom exacerbators were foods determined by a 4-week food diary. Patients were then instructed to take 0.66 gm of calcium glycerophosphate before ingestion of the symptom exacerbators. Symptoms were recorded by voiding diaries, and Likert scales for urgency and pain. Seventy percent of the patients reported a reduction in pain, while 61% reported a reduction in urinary urgency.

Some dietary recommendations are not simple to follow, and patients need to become vigilant towards food labels. Of importance are food additives that IC patients should try to avoid. These additives include artificial color, monosodium glutamate, nitrites, and sulfites. Unfortunately some of these ingredients are hidden on labels, making it sometimes difficult for patients to determine a source for their flare in symptoms. For some of the restricted foods, alternatives are available. Due to the overwhelming number of people now diagnosed with acid-reflux, there are some low-acid products on the market, including low-acid coffee and low-acid orange juice.

Of course a diet like this takes effort. Unfortunately, some IC patients feel they do not have the energy to make such lifestyle changes. However, it is important to offer support for patients who are willing to make the effort, and help them realize this change can be an opportunity to improve their quality of life.

**References**

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Apples or apple juice	Grapes
Artificial sweeteners	Nuts
Avocados	Peaches
Bananas	Pineapple
Beans	Plums
Cantaloupe	Prunes/raisins
Carbonated beverages	Spicy foods
Cheese	Sour cream
(particularly aged, hard, soft)	Tea
Chili	Tomato
Chocolate	Rye breads
Citrus fruit	Vinegar/condiments
Corned beef	containing vinegar
Coffee	Yogurt
Cranberries	

Diet	Before Calcium Glycerophosphate (%)	After Calcium Glycerophosphate (%)
Pizza	45.5	14.5
Tomato	62.5	17.0
Spicy Food	55.5	9.0
Coffee	59.5	18.0
Acidic Juice/fruit	62.5	18.5
Carbonated Drink	57.0	18.0
Alcohol	53.0	5.5
Chocolate	41.0	16.0
Data from Bologna et al.		

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