Nutritional Influences on Illness
by Melvyn R. Werbach, MD
4751 Viviana Drive • Tarzana, California 91356 USA
Phone 818-996-0076 • Fax 818-774-1575

A Nutritional Approach to Treating Irritable Bowel Syndrome

Irritable bowel syndrome (IBS) refers to a chronic intestinal disorder marked by recurring symptoms of abdominal pain and alteration of bowel habit. Nutritional influences on this syndrome are due primarily to the effects of macronutrients as well as to idiosyncratic reactions to specific foods.

**Dietary Fat**

Fat is the major dietary stimulant of the gastrocolonic response. Patients have an exaggerated and prolonged release of cholecystokinin following ingestion of a fatty meal which appears to cause the onset of their symptoms. Those with diarrhea tend to be more sensitive to a fatty meal than those with constipation.

**Sugar**

In addition to shortening oro-anal transit time, sugar increases the fecal bile acid concentration, at least partly by increasing bacterial fermentation in the colon. These alterations in colonic activity are known to increase the risk of developing an irritable bowel. Fructose and sorbitol have been shown to cause malabsorption as evaluated by the hydrogen breath test. In one study, patients found to be fructose-intolerant (38% of the IBS group) experienced significant symptom reduction as long as they stuck to a fructose-free diet. While sucrose does not cause malabsorption, it does provoke symptoms — although they are milder. Combined sugar malabsorption patterns are common, and restriction of offending sugars is routinely indicated.

**Dietary Fiber**

Gastric emptying and small bowel motility are slowed by soluble fiber, while both soluble and insoluble fiber reduce intraluminal (within the gut) pressures in the sigmoid colon and overcome spastic constipation when given in progressive graded doses.

A high fiber diet has proved effective for constipation, a common complaint in this disorder, and studies have found that the addition of wheat bran increased stool weight and decreased transit time in patients. Nevertheless, several double-blind studies failed to find symptom improvement following the addition of wheat or corn bran to the diet.

Psyllium (ispaghula) has also been shown to be better than placebo in reducing constipation and decreasing elevated intestinal transit times. Adding it to the diet, however, has had similarly mixed results. In one study, 39% of patients indicated that psyllium reduced symptoms, while 22% indicated that it aggravated them.

**Food Sensitivities**

Dietary fiber may fail to reduce symptoms because some patients are hypersensitive to specific fiber-containing foods. For example, 55% of a group of 100 patients stated that whole grain wheat and bran products made them worse, while only 10% found them helpful. Of the other sources of fiber, citrus fruits — especially oranges — were most likely to be offenders.

Various food sensitivities may provoke symptoms in perhaps half of the patient population. Simply eliminating common foods from the diet for two weeks is likely to result in symptom relief for up to two-thirds of patients.

**Lactobacillus Acidophilus**

A double-blind crossover study has confirmed the efficacy of Lactobacillus acidophilus, a beneficial bacterium, in producing symptom relief, although it may require weeks or months before improvement is noted. While the mechanism of action is uncertain, benefits could be due to its antimicrobial activity when symptoms are due to undiagnosed chronic intestinal infections.

**Treatment Plan**

Briefly, then, the nutritional prescription for irritable bowel syndrome is as follows:

1. Avoid fatty meals and minimize the intake of refined sugars.
2. Try adding wheat bran to the diet or adding one teaspoon of psyllium twice daily.
3. Finally, consider eliminating common foods for perhaps a two-week trial. If symptoms subside, add a food back every 3 days to identify the offenders.

Even though this treatment protocol is quite simple, it should provide your patients with at least some relief most of the time!

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**References**

6. Kraft N, Chai Y. Presentation to the American College of Gastroenterology annual meeting, Baltimore, MD, October 15, 2003

continued on page 159