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International Foundation for Gastrointestinal Disorders (www.iffgd.org)

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Irritable bowel syndrome (IBS) is one of the most common and most troublesome conditions for which individuals seek medical attention. More people have symptoms compatible with this disorder than are actually diagnosed. Specific food practices may contribute to constipation, diarrhea, bloating, gas, and abdominal pain. Based on our observation and experiences in nutrition research, we will share with you some suggestions for improving bowel function and decreasing symptom severity.

Fiber is a double-edged sword for persons with intestinal disorders. While fiber alleviates constipation, certain high fiber foods, such as bran, may increase gas production and bloating. However, it seems likely that most persons with IBS will benefit from at least a moderate increase in dietary fiber intake.

While fiber may appear to be a simple solution, the Western diet suggests the challenge in attempting to increase dietary fiber intake. The current recommendation [for adults] is 20–35gm per day. The typical American consumes far below that amount. Adding insult to injury, many people will “binge” on fiber and find themselves in a worse condition than when they were on a low fiber diet. A *gradual* increase in dietary fiber can modify, improve and, in some people, eliminate the abnormal bowel habits and painful symptoms associated with IBS. Persons who have difficulty obtaining the goal of 20–35gm per day through diet alone may find fiber supplementation helpful. With any dietary fiber, our guideline is to *start low, go slow*.

General Health Benefits of Dietary Fiber

Consuming generous amounts of fiber in our everyday diets potentially can improve overall health. The clearest health benefit associated with high fiber intake relates to a reduction in risk for coronary heart disease. Persons with the highest intake of cereal fiber have a 30% reduction in risk for coronary heart disease. Dietary fiber, especially soluble fiber, acts to decrease serum total and low-density lipoprotein cholesterol (the “bad” cholesterol) concentrations, thereby decreasing risk for heart disease.

Dietary fiber also offers advantages for persons at risk for hypertension, diabetes or obesity. Increased fiber intake

improves blood pressure and may decrease risk for developing hypertension. While the benefits of high fiber diets for persons with diabetes has been recognized for years, recent research indicates that a high fiber intake decreases risk for actually developing diabetes. The anti-cancer effects of dietary fiber have received much attention, but the research remains controversial. In general, populations with the highest intake of fiber have the lowest rates of cancer.

Fruits and vegetables exert a strong protective effect, quite possibly due to their high content of antioxidants and phytochemicals. Encouraging five servings of fruits and vegetables daily, the recommendation of the American Cancer Society and other authoritative bodies, makes good sense and is sound advice for everyone.

Gastrointestinal Health Benefits of Dietary Fiber

Dietary fiber has specific benefits for maintaining gastrointestinal health, affecting the entire GI tract from top to bottom. High fiber foods take longer to chew which gives the brain a chance to register fullness, preventing overeating. High fiber foods also slow digestion, which prolongs this feeling of fullness. Evidence suggests a high fiber diet may reduce the risk for colon cancer.

Research in fiber and GI health took off in the 1970s when a link was first proposed between high fiber intake and low rates of chronic diseases such as heart disease and cancer. A correlation was also found between high fiber and lower rates of irritable bowel syndrome, as well as hiatal hernia, appendicitis, diverticular disease, constipation, bowel polyps, and hemorrhoids. Constipation alone can lead to increase risk for hemorrhoids and diverticular disease. While the use of dietary fiber in the treatment of certain GI disorders may be debatable, the evidence to at least consider fiber therapy is strong.

IBS patients who are prone to constipation appear to benefit the most from fiber treatment. Other individuals with various forms of gastrointestinal disorders may benefit from a variety of treatments involving more than a little trial and error. Because IBS and other GI disorders have many components, the greatest challenge will be in identifying one or several strategies that prove effective.

Dietary fiber can be classified as either soluble or insoluble. Soluble fiber dissolves in water, becomes a soft gel, and is readily fermented. These include pectin, guar gum, and other gums. Insoluble fiber does not dissolve or gel in water and is poorly fermented. Cellulose [found in legumes, seeds, root vegetables, and vegetables in the cabbage family], wheat bran, and corn bran are examples of insoluble fiber.

High fiber substances containing both soluble and insoluble fibers have the properties of both. They include oat bran, psyllium, and soy fiber. Methylcellulose is a semi-synthetic fiber. It is soluble and gel forming, but not fermentable.

Types of fiber differ in the speed and extent to which they are digested in the GI tract, and in the process of fermentation. There may be both good and bad aspects to fermentation, but there are certainly metabolic products produced by fermentation which contribute to colonic health. The solubility and fermentation of a particular fiber affects how it is handled in the GI tract. As well, the effect of identical fibers varies from person to person. Individual response may vary and we encourage individuals try different types of fiber.

Specific Treatment Using Dietary Fiber

Despite some uncertainties about its use and effectiveness, fiber is a reasonable approach in treatment of GI disorders, particularly in the constipation prone IBS person. Once a diagnosis of IBS is made, your physician may suggest the fibers listed below for treatment of various symptoms.

[Editors Note—Do not undertake any treatment without first consulting with your physician; confirm the appropriateness of treatment based on your diagnosis.]

IBS Symptoms	Fiber Treatment
Lower abdominal pain	Methylcellulose/Psyllium
Upper abdominal pain	Oatmeal/Oat bran/Psyllium
Constipation	Methylcellulose/Psyllium
Incomplete evacuation	Methylcellulose/Psyllium
Diarrhea	Psyllium/Oligofructose*
Excessive gas	Methylcellulose/Polycarbophil

**Oligofructose* — A naturally occurring indigestible carbohydrate that stimulates the growth of beneficial bacteria in the large bowel. Found predominantly in onions and leeks.

Nutrition therapy, with an emphasis on dietary fiber modification, appears to be a safe and effective initial treatment of gastrointestinal disorders, particularly in constipation prone individuals. Fiber intake can be tailored to the symptoms most evident and can be fine-tuned in partnership with a medical care provider.

Summary

Making small, gradual changes can add up to a big difference in the nutritional value of your diet. Experiment with fresh foods and don't be afraid to try new foods and recipes. Here are a few practical tips for adding fiber to your diet.

Vegetables

- Cook in microwave to save time and nutrients
- Cook only until tender-crisp to retain taste and nutrients

Beans

- Replace the meat in salads and main dishes with dried beans and peas
- Presoaking reduces the gas-producing potential of beans if you discard the soaking water and cook using fresh water
- Use a slow cooker for bean soups and stews

Fruit

- Snack on fruit anytime, anywhere
- Experiment with unusual fruits such as kiwi, pineapple, and mangos
- Leave peelings on fruit whenever possible
- Use fresh and dried fruit in muffins, pancakes, quick breads, and on top of frozen yogurt

Grains

- Choose whole-grain varieties of breads, muffins, bagels, and English muffins
- Try fresh pasta instead of dried
- Mix barely cooked vegetables with pasta for a quick pasta salad

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