

Food Choices

By Mindy Hermann, MBA, RDN



Dietary approaches can often reduce and lessen the GI issues faced by individuals with immunodeficiencies and autoimmune conditions.

PEOPLE WITH PRIMARY immunodeficiencies and autoimmune disorders often experience gastrointestinal (GI) issues. Some of these can be relatively minor and inconvenient, while others can be quite severe and debilitating.

The broad GI symptoms that accompany immunodeficiencies and autoimmune disorders are not well understood. To better identify the most common issues, a group of researchers looked at the medical files of 50 immunodeficient patients with GI

and GI Symptoms

symptoms. They found that nearly all of them had chronic diarrhea and over half had trouble digesting and absorbing certain nutrients. This malabsorption may have resulted from and/or caused deterioration of the microscopic fingers in the intestine, called villi, that absorb nutrients. Many of the immunodeficient patients also had chronic gastritis, a long-term inflammation of the lining of the stomach and/or intestine that can be accompanied by abdominal pain, nausea and vomiting. In a different study, abdominal pain and vomiting were the most common GI symptoms in people with lupus. The lupus patients studied also developed more intestinal infections.

Following are common GI symptoms and possible dietary approaches. Importantly, food usually is not the cause, nor is it the primary or only treatment. Furthermore, the causes of GI symptoms can be related. However, in many cases, certain foods can be avoided or incorporated to help reduce or eliminate GI issues. All GI symptoms should be reviewed with a physician or qualified medical professional before making any diet changes.

Bloating and Gas

Most people, whether immunodeficient or with an intact immune system, experience periodic or frequent bloating and abdominal gas. Some of the most common culprits include carbonated beverages, swallowing air while eating, foods known to be gassy (Table 1) or fatty foods, especially for people who have trouble digesting and absorbing fat as a result of their disease or history of abdominal surgery. Sometimes, gas accompanies abdominal conditions that are more prevalent among people with immunodeficiencies such as irritable bowel syndrome, Crohn's disease, changes in or overgrowth of intestinal bacteria, intestinal blockage and malabsorption, as well as intolerances to gluten and/or lactose.

The best strategies to manage gas when more serious causes have been ruled out include limiting or avoiding gas-producing foods, limiting fat and eliminating carbonated beverages.

Constipation

Constipation — fewer than three bowel movements a week — may be less common among people with immunodeficiencies,

whose condition and side effects tend to be associated instead with loose stools. In addition to food causes such as eating too little fiber, constipation can be caused by certain medications, as well as intestinal narrowing or blockage, colon or rectal cancer, certain hormone-related diseases or neurological issues that affect the colon and rectum.

Changes that may help relieve constipation include eating more fiber from foods such as beans, fruits, vegetables and whole grains, and increasing physical activity.

Diarrhea

People with diarrhea have frequent, loose, watery bowel movements, sometimes accompanied by cramps. Some have diarrhea all the time, while others may cycle between normal bowel movements, constipation and diarrhea. Several illnesses can contribute to diarrhea, including Crohn's disease, ulcerative colitis and irritable bowel syndrome. Among the numerous other causes are antibiotics, bacterial or viral infections, medications, lactose intolerance, gluten intolerance and fat malabsorption.

Ideally, treatment for diarrhea should start with identifying the cause(s), which may or may not include foods.

Table 1. Typically Gassy Foods

- Beans and peas (legumes)
- Vegetables in the cabbage family (broccoli, Brussels sprouts, cabbage, cauliflower)
- Vegetables in the onion family (onions, garlic, leeks, green onions)
- Spinach and leafy greens
- Mushrooms
- Certain fruits (apples, peaches, pears, dried fruit)
- Bran and whole grains
- Sugar alcohol sweeteners (sorbitol, mannitol, xylitol)

Managing Gut Bacteria

Much attention today is on the bacterial cultures in the intestinal tract called the microbiome. A healthy gastrointestinal tract contains billions of bacteria that benefit the body by breaking down food the body cannot digest, crowding out harmful bacteria, preventing harmful bacteria from entering the body through the GI tract, and releasing compounds that help the colon function normally. Intestinal bacteria also affect the body's immune system. One research group suggests that improving the types and amounts of intestinal bacteria could lessen the symptoms of certain autoimmune diseases, including celiac disease, and aid the treatment of such diseases as rheumatoid arthritis.

A healthy microbiome depends on two elements: probiotics and prebiotics. Probiotics are strains of bacteria with functions that benefit health. Traditional yogurt bacteria, for example, break down lactose (milk sugar) to make it more digestible and give yogurt its characteristic tart flavor. Many yogurt varieties have additional cultures with other benefits. Probiotics also are widely available in supplement form. Probiotic bacteria are not native to the GI tract and must continue to be taken to confer benefits.

Prebiotics are certain types of fiber that feed the bacteria in the colon. Research suggests that the prebiotics chicory root fiber, inulin, fructooligosaccharides and others may help boost immunity by stimulating gut-associated lymphoid tissues by nourishing beneficial bacteria. Preliminary animal studies also show that the combination of prebiotics and probiotics may lessen the severity of chronic inflammatory bowel diseases such as Crohn's disease and ulcerative colitis. Prebiotics offer additional benefits, including improved stool frequency, volume and consistency. Yogurts, nut and snack bars, and other foods may contain added prebiotic fibers, often in the form of inulin. Jerusalem artichokes, garlic, onions, asparagus and bananas contain prebiotic fibers, which also are available as a supplement. Patients should consult with a health professional before considering probiotics and prebiotics.

Small intestinal bacterial overgrowth (SIBO) is an infection of the small intestine that is caused by infiltration of bacteria from the large intestine. It can worsen the symptoms of irritable bowel syndrome and Crohn's disease, as well as contribute to gas, bloating, abdominal pain, diarrhea and constipation. SIBO often accompanies autoimmune diseases and can cause nutrient malabsorption. Antibiotics are the most effective treatment, along with correction of any nutrition deficiencies that are identified by the doctor or health professional.

Resources for Patients

- The Monash University Low FODMAP Diet (Version 1.6) [Mobile Application Software]: itunes.apple.com/au/app/monash-university-low-fodmap/id586149216?mt
- Low FODMAP Central: www.nestlehealthscience.us/lowfodmap
- Mayo Clinic: www.mayoclinic.org/patient-care-and-health-information
- WebMD Digestive Disorders Health Center.: www.webmd.com/digestive-disorders/features/5-things-digestive-problems

Lactose Intolerance

Many adults, including those with a compromised GI tract, lose the ability to digest lactose, the carbohydrate in milk. Disease-related damage to intestinal villi prevents them from producing the enzyme needed for lactose breakdown. The end result is gas, bloating, gurgling and, often, diarrhea. Testing for lactose intolerance is easy if not a bit uncomfortable. It is done by drinking a glass of skim milk by itself and paying attention to any symptoms; discomfort suggests lactose intolerance.

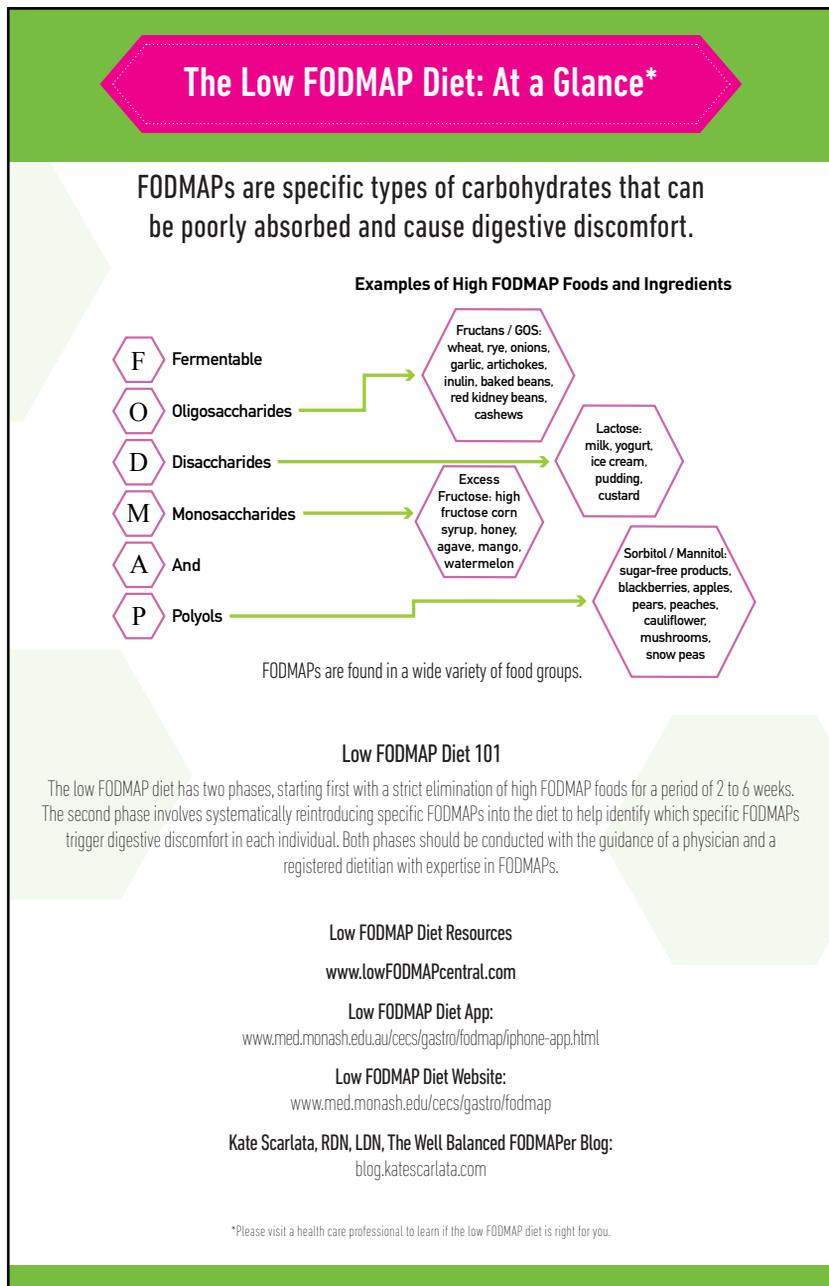
In addition to lactose-free products such as milk and cottage cheese, lactase enzyme tablets are widely available. Some people with lactose intolerance can eat cheese and yogurt because they have much less lactose than milk.

Celiac Disease

Celiac disease is an autoimmune response to gluten, a protein in wheat, rye and barley. It appears to be more common in individuals with immunodeficiencies and may exacerbate certain symptoms. People with true celiac disease rather than an allergy or sensitivity to wheat respond adversely to even the smallest amounts of gluten. This damages the intestinal villi, leading to malabsorption of many nutrients. When celiac is suspected, blood tests and an intestinal biopsy must confirm the diagnosis.

A strict gluten-free diet is the only known treatment for celiac disease. Individuals with celiac disease should work closely with a registered dietitian nutritionist to learn which foods are likely to contain gluten and which terms to look for on food package labels.

Figure 1.



FODMAPs

A low FODMAPs diet (Figure 1) could be considered if celiac disease, SIBO and other causes have been ruled out, but GI symptoms persist. FODMAPs (fermentable oligo-, di-, and monosaccharides and polyols) are found in particular fruits, vegetables, dairy products, nuts, sweeteners and other foods. Several of the foods that are limited on a low FODMAPs diet are the same ones that are described as prebiotics.

Kate Scarlata, a Massachusetts-based dietitian who specializes in the low FODMAP diet and digestive health conditions, suggests that the low FODMAPs diet requires consultation with a dietitian because its restrictions can be both stringent and nuanced and require advanced skills in label reading. The diet also can be nutritionally unbalanced unless carefully planned.

Crohn's Disease

Crohn's disease is accompanied by inflammation of the bowel. Symptoms can include abdominal pain and cramping, diarrhea, malabsorption and malnutrition, and loss of appetite. The disease is not caused by or treated with diet.

People with Crohn's should work with a doctor, dietitian or other health professional to identify foods that are tolerated best.

Sleuthing Out a Solution

Individuals with GI problems related to their immunodeficiency should identify which foods are well-tolerated and which cause problems. This may require working with a dietitian or other health professional on a strict "elimination" diet that cuts out potentially problematic foods — wheat and related grains, certain vegetables and fruits, soy and other legumes, dairy products, high FODMAPs foods and fatty foods — for a period of time and then adds back foods one by one, waiting several days between each introduction. This type of diet is best used in consultation with a health professional for guidance and instruction on when to add back which foods, which foods and ingredients appear to cause problems, and how to read labels to avoid them. A carefully maintained food diary is essential for identifying

problematic foods and monitoring symptoms. The ultimate goal is to narrow down the list of foods to avoid and create a diet that is nutritionally balanced and well-tolerated. ■

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Sources available upon request.