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Eating Disorders and GI Symptoms — Understand the Link Between Them and How to Treat Patients

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Eating disorders are uncommon, but they often are undertreated and accompanied by gastrointestinal (GI) distress. Lifetime prevalence of anorexia nervosa, bulimia nervosa, and binge eating disorder is less than 6% in women and less than 3% in men, according to a 2007 national survey.¹ Yet researchers from the University of Australia found that 98% of 101 female patients admitted to an eating disorder unit fit the criteria for functional gut disorders, and 50% met the criteria specifically for irritable bowel syndrome (IBS).²

GI disorders found concomitantly in individuals with eating disorders include heartburn, bloating, constipation, dysphagia, and anorectal pain.² Functional gut disorders constitute GI symptoms without evidence of anatomical GI disease and are well-acknowledged characteristics of patients with eating disorders. Moreover, pelvic floor dysfunction may be a contributing factor to the abdominal distention seen in patients with eating disorders.³

In clinical practice, dietitians working with eating disorder patients have observed coexistent GI problems. Studies have shown that satiety and bloating significantly are higher in people with eating disorders.⁴ The presence of IBS in eating disorder patients is strongly correlated to disordered eating and psychological issues, such as anxiety and obsessive-compulsive tendencies. The worse the quality of life relating to the eating disorder, the worse the IBS quality of life and IBS symptoms.⁵ Altered eating behavior is strongly associated with altered gut sensitivity and GI motility. Psychiatric comorbidity, such as anxiety and food phobias along with GI alterations, set the stage for potential persistent GI dysfunction.⁶

Understanding the GI Connection

Typical eating disorder symptoms disrupt normal digestive patterns and may cause mild to severe GI distress. Eating disorder symptoms can include severe chronic restriction, chaotic and unpredictable eating patterns (eg, restriction during the day with bingeing at night), self-induced purging, and laxative abuse as well as excessive intake of caffeinated or carbonated beverages and artificial sweeteners via low-calorie foods, beverages, or gum.

University of Sydney researchers evaluated GI-symptom response to a dietary challenge of fructose and sorbitol in individuals with an eating disorder and healthy controls. More than 58% of eating disorder patients exhibited GI consequences due to the sorbitol-fructose challenge, compared with only one (5%) of the healthy controls. Symptom development was more common in those with anorexia nervosa.⁷ The impact of these findings may be significant to the treatment of individuals with an eating disorder who often drink sugar-free diet products, which can be rich in sorbitol, or rely on fruits as lower-calorie food choices that contain excess fructose, such as apples, pears, and mangos. Sorbitol is found in sugar-free gum and mints; stone fruits, including peaches, nectarines, and plums; apples; pears; and even honey.

The role of the gut microbiota, impacted by diet, also may play a role in eating disorders and GI symptoms. In clinical observation, chronic food restriction leads to intolerance of foods that were previously tolerated. This may be due to



the alteration in digestive enzyme production or changes in gut flora, which can impact digestion. Gut bacteria can induce autoantibodies that bind to brain targets and impact behavior in susceptible individuals. The concept of the gut forming the center of an integrated gut-brain-energy axis, which modulates appetite, metabolism, and digestion, is evolving. “I believe one of the most promising areas of research in psychiatry is the role of gut bacteria on mood and disordered eating,” says James Greenblatt, MD, chief medical officer of Walden Behavioral Care in Waltham, Massachusetts. “There is clear evidence that bacteria in our gut can affect our metabolism and our behavior. Metabolites of gut bacteria can disrupt the synthesis and breakdown of neurotransmitters leading to depression, anxiety, and agitation. Treating the gut with probiotics results in improvement in mood and behavior. Each patient has a unique gut environment. Being able to test for abnormal bacteria in the gut can lead to significant improvement in the treatment of eating disorders and other psychiatric illnesses.”

Identifying Potential Triggers

The RD’s role is paramount in bridging the gap between GI-symptom control and eating disorder nutrition therapy. Identifying and modifying dietary triggers should be initiated when the eating disorder is stable and the eating disorder health care team feels that adjusting the diet won’t exacerbate the eating disorder. Below are screening and assessment questions dietitians should review with patients to identify the underlying cause of the GI problem.

- **Step 1:** Review family and personal history of GI concerns. Clarify whether the patient’s symptoms existed before or after the start of his or her eating disorder.
- **Step 2:** Identify specific GI symptoms by asking the patient if he or she is experiencing these common GI complaints: gas, bloating, heartburn, dysphagia, constipation, diarrhea, or incontinence. Kacey Morrow, RD, LD, CLT, a dietitian at SuNu Wellness in Minneapolis and Minnetonka, Minnesota, recommends asking very specific questions about symptoms. “How long has the symptom been present? When do they appear? Before, during, or after eating? Finding out what symptoms someone is experiencing and when they begin allows me to determine what the possible issues could be, and if needed, which part of the GI tract I need to assess further.”
- **Step 3:** Screen for eating disorder behaviors such as patterns of food restriction, bingeing, purging, and laxative/diuretic use; fluid patterns, including coffee, tea, diet soda, carbonated water, and excessive intake of artificial sweeteners; erratic patterns of meal timing and macronutrient balance; excessive gum chewing; and excessive fiber consumption, particularly through diet foods with isolated fiber additives such as chicory root (inulin), which can contribute to gas and bloating.
- **Step 4:** Consider additional causes of GI symptoms such as anxiety and medication use. Mary Mahoney, RDN, a nutrition consultant at Santa Clara University in California, encourages patients to work with a mental health professional. “I always recommend my [eating disorder] clients work with a mental health professional to decrease their anxiety. In my experience, anxiety makes eating difficult and GI upset worse.”
- **Step 5:** Refer patients to a gastroenterologist for further evaluation if they present with alarming features such as blood or mucus in the stool, persistent unexplained vomiting, abdominal pain, a palpable mass, a family history of inflammatory bowel disease, or celiac disease. Additional testing may include an assessment for celiac disease, small intestinal bacterial overgrowth, lactose intolerance, fructose malabsorption, gut motility disorder, and pelvic floor dysfunction. Susan Kelly, MD, a gastroenterologist at Beth Israel Deaconess Medical Center in Boston, stresses the importance of teamwork. “Food frequently exacerbates symptoms of IBS. Likewise, food can exacerbate symptoms and illicit fear in patients with eating disorders. Both conditions [eating disorders and functional GI disorders] can lead to serious dietary complications rooted in the complex neurobiology of the brain-gut axis. Treatment requires cooperation and teamwork between dietitians and physicians.”

Treatment of GI Distress

When treating eating disorder symptoms and GI concerns simultaneously, RDs must provide clients and patients with education, resources, and continuous coaching on the importance of eating consistent and balanced meals and snacks to decrease GI symptoms. Following a structured eating plan will allow them to train their gut, which will lead to symptom reduction.

To prevent triggering eating disorder behavior, RDs shouldn’t recommend strict elimination diets in this population, because they can exacerbate restrictive eating patterns. Dietitians who specialize in digestive health can provide general guidelines to modify intake of common dietary triggers, including sorbitol and excess fructose or lactose sources, or adjust fiber intake and fluids as needed to alleviate constipation as they work closely with an eating disorder therapist or eating disorder dietitian. Adding adjunctive therapies such as gut-directed hypnosis, yoga, probiotics, or digestive enzymes also can ease GI distress. Dietary strategies such as a low-FODMAP (Fermentable oligo-, di-, and monosaccharides and polyols) diet for the IBS patient may be helpful but should be used only when

the eating disorder is stable and the eating disorder dietitian and therapist feel the patient is ready to be placed on this type of diet.

GI Expertise Required

The role of the eating disorder dietitian is complex, as it requires knowledge of medical nutrition therapy for the eating disorder and comorbid medical and mental health diagnoses as well as psychological awareness and counseling skills. Given the frequency at which eating disorder patients experience GI disturbances, it's imperative that RDs continue to develop the skills to effectively treat both simultaneously. Through the use of a multidisciplinary health care team as well as consistent follow-up and communication with patients, it's possible to reduce GI symptoms while effectively supporting patients in their recovery from their eating disorder.

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[Sidebar]

CASE STUDY

A patient presented to her RD with an eight-year history of restrictive-type eating patterns, generalized anxiety disorder, and complaints of severe bloating, gastrointestinal (GI) pain, and constipation. After a thorough assessment, the dietitian learned the following:

- Anxiety and GI symptoms predated the eating disorder although there was no strong family history of GI disturbances.
- The patient experienced significant symptom relief while in residential treatment for her eating disorder.
- The patient reports drinking 64 oz of diet soda daily and chewing gum excessively to minimize hunger.
- She is following approximately 50% of her meal plan and typically eats every six to seven hours.
- The patient reports consuming four to five servings of dairy per day with very little alternative protein sources.

The RD asked the patient to make an appointment with her primary care physician to be tested for lactose intolerance and celiac disease as precautionary measures. Her tests came back negative. The dietitian provided the patient with education regarding the challenges her eating disorder behaviors were creating for her GI system. Due to her GI distress, the patient was willing to increase her meal plan compliance by eating every three to four hours and significantly decreasing her consumption of diet soda and artificial sweeteners. The RD also suggested she take digestive enzymes before meals and a daily probiotic. Moreover, the dietitian and a therapist worked with the patient and suggested she take a premeal antianxiety medication and perform deep breathing exercises to decrease her stress response to food. Within one month, she reported a near disappearance of all GI disturbances.

— *KS and MEA*