Celiac Center

Weight Loss after Starting a Gluten-Free Diet

Key Points

Questions to Ask Yourself:

- Is cross-contact with gluten the culprit? Where are possible overlooked sources of gluten in my diet or lifestyle?
- Am I eating enough calories to gain weight?
- Am I worried or anxious about what to eat?
- Am I simply eating healthier than ever before?

Cross Contact:

Cross-contact with gluten containing food or ingredients is the most common cause of
persistent symptoms and ongoing weight loss after starting a gluten-free diet.¹ It only takes
one crumb of bread to cause some intestinal damage in celiac disease. <u>Please become
familiar with possible areas of cross-contact</u>. Starting these practices may be all you need to
do.

Inadequate Caloric Intake:

• The gluten-free diet can be overwhelming at first. Many people find themselves at a loss to find food that is safe to eat. They may skip meals at first because they aren't used to planning ahead and packing food. They haven't yet learned to stash snacks in their glove compartment, bag or briefcase. They aren't comfortable speaking to restaurant staff regarding cross-contact. They may find themselves hungry and losing weight simply because they aren't eating enough calories. If insufficient calories are causing weight loss, experience and planning will help. Work with a registered dietitian to develop strategies addressing this area.

Tips to increase your daily calories:

- To gain weight, eating an average of 500 *additional* calories per day is suggested. This will result in an average weight gain of 1 pound per week.
- Eat small meals and eat often. Eating small meals or snacks every few hours maintains blood sugar levels and promotes digestion. Combine carbohydrate and protein to balance blood sugar and maintain energy. Ideally, your added calories should come from whole foods which are unprocessed and rich in nutrients.

Some examples of ~500 additional healthy calories per day are:

- 1 cup of almonds
- ³⁄₄ cup cashews
- 1/4 cup dried blueberries + 1 ounce (oz.) banana chips + 1 1/2 oz. almonds
- 2 1/2 oz. macadamia nuts
- 5 tablespoons of peanut butter
- 2 ¹/₂ cups whole fat cottage cheese
- 1 avocado + 1 cup whole milk plain yogurt (add some lemon and salt and you have guacamole!)
- 5 oz. of whole milk cheese
- 1/4 cup of olive oil you can use it in cooking or add it to mashed potatoes
- Gluten–free protein powder- 4-5 scoops (~30g protein), varies depending on protein powder

These are just a few simple ideas. Get creative and you will be on your way to a healthy weight before you know it. Once you reach your goal weight you can choose skim or 1% milk, yogurt, and cheese over the whole fat versions to reduce the amount of saturated fat in your diet. You can also return to eating the following standard portion sizes for weight maintenance:

- Cottage cheese (1cup), cheese (1-1/2 oz.)
- Nuts (1 oz.)
- Hard cheese (1-1 ½ oz.)
- Peanut butter (2 tablespoons)
- Milk/yogurt (1 cup)

Anxiety/Depression associated with eating:

• Patients with celiac disease have significantly higher than average levels of anxiety and depression than their non-celiac individuals.^{2,3} Both anxiety and depression can affect dietary intake and lead to weight loss or weight gain. Some people are so afraid to eat for fear of getting sick that they actually begin to experience weight loss. People who suffer depression may lose their appetite or interest in food and, thus, lose weight. Identifying and addressing the underlying psychological disorder is the first step to improve their weight.

You are actually eating healthier!

• First and foremost, you should be proud of yourself if this describes you. You are no longer spending your lunch hour in the drive-through of the local fast food restaurant; you are bringing your food from home. A long term goal of eating a whole-foods, plant-based diet is an important part of healthy living. This type of diet may also encourage weight loss (and a better sense of well-being) because overall calorie intake may decrease. If you were overweight before starting a gluten-free diet, your weight loss may be welcome. But, if your weight loss is unwanted, try adding calories with some of the above tips.



Which medical conditions contribute to continued weight loss or difficulty gaining weight after the diagnosis of celiac disease and starting the gluten-free diet?

Vitamin Deficiencies: Vitamin deficiencies are common in celiac disease. Certain deficiencies such as zinc and iron may decrease a person's appetite and contribute to weight loss. Vitamin E deficiency can cause nausea and poor appetite. The diagnosis is made using blood tests, such as vitamin D and E, iron, ferritin (iron stores), zinc and the B vitamins. Treatment includes taking vitamin and/or mineral supplements in the short term and using maintenance doses when needed for long term.

<u>Hyperthyroidism</u>: Thyroid disorders are commonly associated with celiac disease. Low thyroid or Hypothyroid disease is more commonly seen and may result in weight gain, but an overactive thyroid (Hyperthyroid) can also occur, and may cause weight loss.

Definition: Hyperthyroid disorders occur when the thyroid gland produces too much thyroid hormone. Thyroid hormones are responsible for regulating metabolism.

Symptoms: Weight loss, poor sleep, feeling warm / increased sweating, diarrhea, tremors, nervous feeling, heart palpitations, hair loss, and muscle weakness

Diagnosis: Hyperthyroid disorders are diagnosed through a series of blood tests that must be ordered by your physician.

Treatment: Medications, surgery or radiation. The treatment is based on your individual situation.

Microscopic Colitis: This inflammatory disorder of the large intestine occurs more often in patients with celiac disease.⁴ It can be related to taking certain medications. Always inform your doctor of all medications and supplements you are taking.

Definition: This inflammation in the large intestine is divided into two types, collagenous and lymphocytic. It may be caused by medication but often the cause is not known.

Symptoms: Chronic, watery diarrhea, not bloody. This may include stomach pain and/or cramping, and weight loss.

Diagnosis: Requires a colonoscopy with a biopsy (a small piece of tissue is taken). The tissue is examined under a microscope. Blood and stool tests as well as an upper endoscopy are used and can rule out other conditions, such as celiac disease.

Treatment: If caused by a medication, your doctor will change the medication. Medications may be required to control symptoms and smoking cessation may be advised.



Small Intestinal Bacterial Overgrowth (SIBO): The incidence of SIBO in celiac disease is high, especially if patients experience ongoing symptoms after starting a gluten-free diet.⁵ SIBO is associated with many other conditions in addition to celiac disease. Definition: SIBO occurs when there is an increase in the number of abnormal types of bacteria in the small intestine.

Symptoms: Gas, bloating, abdominal pain, diarrhea, malabsorption, maldigestion, weight loss, fatigue, etc.

Diagnosis: The gold standard is taking an aspirate (take a sample of fluid) from the small intestine. Most doctors will use the less invasive hydrogen and methane breath tests for diagnosis.

Treatment: The underlying cause of SIBO must be treated first or SIBO may recur. If you have celiac disease this means following a lifelong gluten-free diet. Most doctors will start treatment with antibiotics. In addition, some patients require treatment of nutritional deficiencies. Treatment may have to be repeated if symptoms recur.⁶

Other Gastrointestinal Disorders: This list includes Ulcerative Colitis, Crohn's disease, Irritable Bowel Syndrome, and many others. Other gastrointestinal disorders may occur with celiac disease and result in weight loss. Complete evaluation of this possibility should be addressed by your gastroenterologist.

Lactose Intolerance: Lactose is the natural sugar found in milk. The inability to digest lactose properly results in gas/bloating, cramping, and often diarrhea. Lactose intolerance occurs commonly in patients with celiac disease and the persistent loose stool or diarrhea may result in weight loss. Click here for an overview of how to manage lactose intolerance.

Fructose Malabsorption: Fructose, and other closely related sugars known as FODMAPS, are hard to digest even in a person with a healthy gastrointestinal tract. When digestion is damaged, such as in celiac disease, these sugars can create gastrointestinal symptoms and ongoing weight loss. <u>Click here for more information on Fructose and the other FODMAPs</u>.

Pancreatic Insufficiency: The pancreas is an organ that sits behind the stomach and produces enzymes that aid in the digestion of your food.

Definition: Pancreatic insufficiency (PI) occurs when the pancreas no longer produces enough enzymes to properly digest food. This results in malabsorption. PI happens for many reasons but may be a cause of ongoing symptoms in patients with celiac disease after starting a gluten-free diet.

Symptoms: Diarrhea, fatigue, weight loss, fat in the stools

Diagnosis: An evaluation for all causes of malabsorption will be done. The doctor may recommend pancreatic enzymes supplements due to the low risk associated with this trial and



then monitor symptoms. Another option is to measure the levels of the pancreatic enzyme called fecal elastase -1 in the stool.

Treatment: Treatment includes pancreatic enzyme supplements, dietary changes, such as lowering fat intake and limiting alcohol and caffeine, and correction of any nutritional deficiencies.

<u>Refractory Celiac Disease</u>¹: This is a rare cause of ongoing weight loss in patients with celiac disease.

Definition: Refractory celiac disease occurs when there are persistent symptoms including flattening of the villi in patients who have been on a gluten-free diet for more than 6 months. All other possible causes of ongoing symptoms must be eliminated before this diagnosis is made.

Symptoms: Some patients improve on a gluten-free diet and then symptoms relapse; others never improve on a gluten-free diet and their symptoms persist. Typical symptoms are diarrhea, weight loss, and other symptoms of malabsorption, including nutritional deficiencies.

Diagnosis: Factors that are considered to diagnose refractory celiac disease: Is the diagnosis of celiac disease correct? Have all other possible causes of ongoing symptoms been evaluated? If the answer is yes to these questions, a repeat biopsy of the small intestine, colonoscopy, and often additional studies, such as capsule endoscopy, may be performed.

Treatment: Hospitalization may be required. Several therapies may be used including immunosuppressive treatments, and IV nutrition.

<u>Cancer</u>¹: Certain types of cancer have been shown to occur more frequently in people with celiac disease. The good news is their occurrence is rare. The risk of cancers are higher with persistent non-healing of the small-intestine in celiac disease.

Definition: Certain lymphomas and cancers of the gut and liver are more common in undiagnosed celiac disease. The risk of these cancers is greatest up to the first five years after diagnosis.

Symptoms: Symptoms depend on the location and type of cancer but can include ongoing weight loss or difficulty gaining weight.

Diagnosis: If this is a concern, please consult your physician but know that this is a rare cause of ongoing weight loss in celiac disease.

Treatment: Treatment will depend on many factors.



Anxiety: Anxiety occurs more commonly in people with celiac disease when compared to the general population.^{2, 7}

Definition: A persistent worry or concern beyond what is expected for a situation. It may interfere with daily activities such as work, life, sleep, or diet.

Symptoms: Feeling nervous, powerless, trembling, disrupted sleep, sweating, poor appetite

Diagnosis: Medical causes must be evaluated first as possible causes of anxiety.

Treatment: Treat the underlying cause, if one is found. Counseling and medications may be needed.

Depression:^{2,7} Depression is common in celiac disease and can result in poor appetite, poor caloric intake, and persistent weight loss.

Definition: Persistent feeling of sadness or worthlessness that results in emotional and physical symptoms

Symptoms: Loss of interest in activities, feelings of hopelessness or worthlessness or guilt, weight loss or gain, changes in appetite, low energy, difficulty concentrating, changes in sleep pattern.

Diagnosis: Medical causes of depression such as thyroid disorder, sleep disruption, and nutrient deficiencies should be considered and evaluated by your doctor before starting any medications.

Treatment: Eliminating gluten often improves overall well-being in celiac disease but may not fully treat depressive symptoms. Treatment will depend on the cause of the depression and may include such therapies as vitamins, exercise, addressing sleep disorders, or thyroid medications. If a medical cause is not found, counseling and anti-depressants may be used.

Getting Support:

Work with your physician and/or dietitian to determine the cause of your weight loss and start the proper therapy. Using the proper medical or dietary treatment will have you on the road to a healthy weight and wellness more quickly.

Reliable information is the best tool to combat anxiety/depression associated with choosing the proper foods. The longer you are on the gluten-free diet, the easier it becomes. Read, ask questions, and educate yourself on all aspects of the gluten-free diet. Use reputable resources for information and locate support groups in your area or online. If you are still feeling overwhelmed and unsure about eating, please contact your health care provider for further evaluation and support.



References:

- 1. Rubio-Tapia A, Hill ID, Kelly CP, Calderwood AH, Murray JA. ACG Clinical Guidelines: Diagnosis and Management of Celiac Disease. Am J Gastroenterol. 2013 May;108(5):656-76.
- Husby S, Koletzko S, Korponay-Szabo IR, et al. European Society for Paediatric Gastroenterology, Hepatology, and Nutrition guidelines for diagnosing coeliac disease 2020. J Pediatr Gastroenterol Nutr 2020;70(1):141–156.
- 3. Bai JC, Fried M, Corazza GR, et al. World Gastroenterology Organization global guidelines on celiac disease. J Clin Gastroenterol 2013;47(2):121–126.
- 4. Ludvigsson JF, Bai JC, Biagi F et al. Diagnosis and management of adult coeliac disease: guidelines from the British Society of Gastroenterology. Gut 2014; 63: 1210-1228.
- 5. Al-Toma et al European Society for the Study of Coeliac Disease guideline for coeliac disease and other gluten related disorders. UEGJ 2019 Jun; 7(5): 583–613.
- 6. Husby et al AGA Clinical practice update on diagnosis and monitoring of celiac disease changing utility of serology and histologic measures: expert review. Gastroenterology 2019 Mar;156(4):885-889.

