

# Nutrition Considerations for those with Celiac Disease

## Nutritional Considerations with Celiac Disease

Celiac disease presents a range of nutritional concerns for affected individuals. With celiac disease, eating gluten, a protein naturally found in certain grains such as wheat, barley, rye and some oats<sup>2</sup>, triggers an autoimmune reaction that leads to inflammation and damage to the lining of the small intestine. As result of this damage, abnormal digestion and decreased nutrient absorption can occur.

More than **3 million** people in the United States have **celiac disease**, or about **1 in 133** people.<sup>1</sup>

**The only treatment for celiac disease is a gluten-free diet.** Long-term compliance with a gluten-free diet can improve a variety of outcomes related to bone density, iron deficiency anemia, villous atrophy, gastrointestinal and neurological symptoms, and quality of life. However, managing celiac disease is not just about eliminating gluten from the diet. Those affected by celiac disease need to take extra care to ensure that they get all the vitamins and nutrients they need—particularly iron, calcium, fiber and B-vitamins. A vitamin and mineral supplement can help provide extra assurance that nutrition needs are being met.

### Iron Supplementation for Iron Deficiency Anemia

Iron is an essential mineral necessary for many important metabolic functions in the body. It is part of hemoglobin, the oxygen-carrying component of the blood. Lack of iron can lead to anemia, which can cause severe weakness and fatigue. For individuals with iron deficiency anemia and celiac disease, the consumption of a daily gluten-free multivitamin with iron may be recommended.

### Calcium and Vitamin D for Bone Health

Calcium is an essential mineral for bone growth and is often malabsorbed in individuals with celiac disease. Poor calcium absorption can result in abnormal bone growth, a higher risk of broken bones, and painful bones and joints. Clinical trials and cross-sectional studies have reported reduced bone mineral content and bone mineral density in untreated adults with celiac disease. Gluten-free foods rich in calcium and vitamin D are encouraged.

Brought to you by:

**Rice  
Chex**

# The Challenge of Meeting Whole Grain Needs

Currently, 9 out of 10 Americans do not get enough whole grain.<sup>3</sup> While the availability and range of gluten-free foods are increasing, finding whole grain gluten-free products can seem challenging. Science continues to support the health benefits of whole grain. Including enough whole grain foods as part of a healthy diet may help protect heart health, manage weight, and reduce risk for certain types of cancer and diabetes. Individuals with celiac disease can easily add gluten-free whole grains, such as brown rice, popcorn, quinoa, buckwheat, amaranth, and gluten-free whole grain products to help them get the three servings recommended daily.

## Why Gluten Free Chex® Cereal?

Chex cereals<sup>4</sup> have no gluten-containing ingredients so they are a great option for those following a gluten-free diet. Compared to other gluten-free cereals on the market, Chex cereals are a more affordable gluten-free choice. Additionally, Chex cereals provide key nutrients that individuals with celiac disease must pay particular attention to consuming including iron, calcium, thiamin, riboflavin and niacin. Also, one serving of Chex cereal contains at least 8 grams of whole grain.

### Gluten-Free Chex® Cereal<sup>4</sup>

- At least **8 grams** of whole grain per serving\*
- Good source of vitamin A, vitamin D, calcium
- Excellent source of iron and several B-vitamins

\* At least 48 grams recommended daily

## Chex Cereal is an Affordable Gluten Free Choice!



Source: AC Nielsen. Average Unit Price. 52 wks ending 4/3/10

<sup>1</sup>Fasano A, Berti I, Gerarduzzi T, et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States. Archives of Internal Medicine. 2003;163(3):268-292.

<sup>2</sup>According to ADA Evidence Based Analysis Library and NEJM, 2004; 351: 2021-2022, studies suggest that pure oats that are not cross-contaminated with wheat, barley or rye consumed in moderation can be tolerated by most people with celiac disease. Check with your health care provider to find out if this is right for you.

<sup>3</sup>Cleveland L et al. Dietary intake of whole grains. J Am Col Nutr 2000;19(3)331S-338S.

<sup>4</sup>Excluding Wheat & Multigrain Chex® Look for gluten-free on packaging



visit [glutenfreely.com](http://glutenfreely.com) for a complete list of Gluten-Free products from General Mills.



Bell Institute of Health and Nutrition  
GENERAL MILLS