

Celiac Disease Patients Benefit From B-Vitamin Supplementation

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[Celiac disease](#), an inherited condition involving the small intestine, is triggered by gluten contained in cereal grains. The disease affects nearly 1 percent of the population. The pathophysiology of celiac disease is defined by the reaction of the gut's immune system to the presence of gluten, which results in damage to the inner lining of the small intestine. Damage to the intestinal lining reduces the ability of celiac patients to absorb various nutrients including, iron, folate, calcium, vitamin D, protein, fat and other food compounds. The most culpable gluten-containing grains that trigger celiac problems include the different species of wheat (e.g., durum, spelt, kamut), barley, rye, and their cross-bred hybrids (e.g., triticale, which is a cross between wheat and rye).¹

Signs, Symptoms and Associated Conditions

Although the severity of symptoms vary considerably from one patient to the next, the most common symptoms of celiac disease include weight loss, fatigue, chronic diarrhea, cramps and bloating, irritability and anemia. Weight loss is the most common symptom, but weight gain and constipation can also occur. Some patients experience no GI symptoms at all; only weight loss and/or fatigue. Other associated symptoms can include mouth ulcers, bone pain and dermatitis herpetiformis, which manifests as an itchy rash with bumps and blisters.

This condition is linked to gluten sensitivity, and skin biopsy is required to confirm diagnosis. Common comorbidity issues seen in celiac patients include type 1 diabetes, Down syndrome, thyroiditis, arthritis, ataxia, depression, and neuropathy.¹

Diagnostic Methods

Although small-bowel biopsy is usually required to confirm the diagnosis, a simple blood test is now available to detect the presence of celiac disease. As there is often a family link to the disease, family members of celiac patients should undergo this blood test to see if they have a low-grade or symptom-free version of a celiac condition.¹

Hidden Gluten in Common Foods and Dietary Management

It is the gluten in flour that helps bread and other baked goods bind and prevent crumbling. This application has made gluten an attractive addition to many processed and packaged foods. As such, celiac patients need to read the labels of all packaged and processed foods to ensure they are gluten-free. This is especially true for soups, luncheon meats and sausages.

Attention to food labels is vital, as the only meaningful treatment for celiac disease is to maintain a strict gluten-free diet for life. If celiac disease is diagnosed early and treated with a gluten-free diet, the damaged tissues can heal and the risk of developing many of the long-term complications of this disease, including [osteoporosis](#), lymphoma, and infertility, can be reduced.¹

The Benefits of B Vitamins

A 2009 study published in the *World Journal of Gastroenterology* showed that celiac disease patients commonly have suboptimal nutritional status of certain B vitamins (folic acid, vitamin B₆, vitamin B₁₂). As these vitamins are required to keep homocysteine in a safe range, many celiac patients have high blood levels of homocysteine, which increases their risk for heart disease, stroke and other vascular complications.²

Homocysteine is a chemical made in all body cells which, if left unchecked, diffuses into the bloodstream and causes damage to the blood vessel wall - setting the stage for plaque development, with resulting increased risk for heart attack, stroke and other vascular problems. Some reports suggest that at least 10 percent of all heart attacks in the U.S. each year are attributable to high homocysteine levels.³⁻⁴

The body relies on vitamin B₆, folic acid and vitamin B₁₂ to recycle homocysteine back to methionine or serine within our cells. This keeps homocysteine blood levels in the ideal range. Thus, even marginal deficiencies in these B vitamins can result in higher homocysteine levels, with resulting increased risk of vascular disease.³⁻⁴

Celiac patients have damage to the absorptive lining of the intestinal tract and thus do not absorb many nutrients, including B vitamins, as well as patients with normal intestinal health. In the 2009 study, researchers gave a subgroup of celiac disease patients a B-vitamin supplement (including vitamin B₆, folic acid and vitamin B₁₂), only to discover that their [blood homocysteine](#) levels declined into the normal and safer range.

As celiac patients are known to be prone to high homocysteine levels, they should pay heed to the findings of this study from the standpoint of helping to reduce risk of heart attack and stroke - an important factor in the long-term management of their health.¹

In my view, this study emphasizes the need for celiac patients to take a high-potency multivitamin / mineral that includes a B-50 complex. A supplement of this nature would also help to improve their nutritional status of all important micronutrients (vitamins and minerals), and reduce the risk of premature vascular disease by helping to keep homocysteine within the desired range (under 6.3 micromoles per liter).

References

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