

# HEALTH IN OUR HANDS!

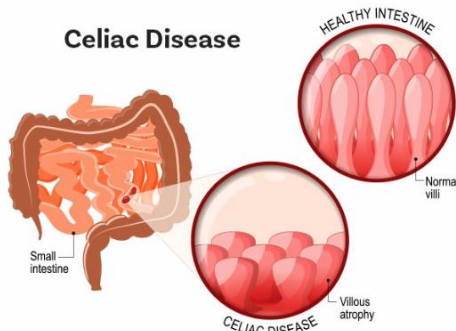
The Arkansas State University Wellness Program Newsletter  
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## Celiac Disease

### What is it?

Celiac disease is an autoimmune disorder that can occur in genetically predisposed people where the ingestion of gluten leads to the damage of the finger-like villi in the small intestine.



If gone undiagnosed, celiac disease can lead to long term complications. These health complications may include developing Type 1 diabetes and multiple sclerosis, anemia, osteoporosis, and infertility. Gluten is a family of proteins found in wheat, barley, and rye. Glutenin and gliadin are the two primary proteins found in these foods. These

proteins play a key role in giving gluten-containing foods its elasticity and bread its spongy texture. Scientists are unsure about the precise cause of celiac disease but they do know that it occurs from an interaction between genes, eating food with gluten, and other environmental factors. Some may become diagnosed with celiac disease later in life as it can be triggered by surgery, pregnancy, viral infection, or severe emotional stress. Those that have family members with celiac disease or dermatitis herpetiformis are at an increased risk for developing celiac disease themselves. Type 1 diabetes, Downs Syndrome, Turner Syndrome, Addison's disease, and Rheumatoid Arthritis can also increase your risk of celiac disease.

### Signs and Symptoms

Signs and symptoms of celiac disease greatly varies with each individual. There

are more than 300 celiac disease associated symptoms. Signs and symptoms also vary slightly in children and adults. In adults, the most common signs are diarrhea, fatigue, and weight loss. They may also experience bloating, gas, abdominal pain, nausea, constipation, and vomiting. Young children diagnosed with celiac disease may often have vomiting, chronic diarrhea, a swollen belly, failure to thrive, poor appetite, or muscle wasting. Older children may experience diarrhea, constipation, weight loss, irritability, short stature, and delayed puberty.

### Screens/Testing

To confirm a diagnosis of celiac disease a doctor may order two different blood tests. The first is a serology test. This test looks for an elevated level of a specific antibody in the blood. The antibody that doctors look for indicates an immune reaction

to gluten. The second blood test that may be done is genetic testing. In this test doctors are looking for human leukocyte antigens. The presence of these antigens help rule out celiac disease. If either of these blood tests are indicative of celiac disease, your doctor may wish to do an endoscopy to view the inside of the small intestines and/or take a biopsy. This allows the doctors to further exam the villi that may be damaged.

### **Treatment**

The current treatment for celiac disease is a lifelong adherence to a strict gluten-free diet. For most people, this dietary change stops their symptoms, can heal existing intestinal damage and prevent further damage from occurring. Improvements may be seen within a few weeks of starting the modified diet.

### **Non-Celiac Gluten Sensitivity**

Research shows that roughly 18 million Americans have been diagnosed with a gluten sensitivity. Those with non-Celiac gluten sensitivity present with several of the same symptoms that those diagnosed with celiac disease may have. In addition, symptoms specific to non-celiac gluten sensitivity may include brain fog, irritability, mood swings,

depression, acne and joint inflammation. Because celiac disease and non-celiac gluten sensitivity clinically present with such similarities, doctors must do a blood test to differentiate between the two. Those that only have a gluten sensitivity will not show any celiac disease antibodies. Intestinal biopsies of those with a sensitivity will not show any damage to the small intestines.

### **Gluten Free Diet**

When going gluten free the first step is knowing what foods contains gluten. The obvious foods are wheat, bread, cookies, pasta and pizza crust. Less obvious gluten containing foods include: processed cheese, chicken broth, soy sauce, creamy soups, and salad dressing. When purchasing food at the grocery store it is always important to check the nutrition label. Eating gluten free at restaurants has become increasingly less difficult with many restaurants already including gluten free items on their menu.

However, if there are no gluten free items already available most meals can be easily modified to be gluten free. Gluten free modifications may include: removing the bun from the sandwich or burger, eating grilled, roasted, or smoked meats instead of fried, and salads with grilled meat, no croutons, and gluten free dressing. When going to new

restaurants, looking at the menu beforehand can help save time when ordering.

### **References**

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### **Other News**

\*\*If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at hanrahan@astate.edu.

The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or hanrahan@astate.edu. Produced by Kayla Leal, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.