

# Celiac Disease

**Celiac disease** is a **genetic** (inherited) digestive disorder of the small intestine manifested by interference with absorption of nutrients from food. Other names for celiac disease are **sprue**, **nontropical sprue**, and **celiac sprue**. Individuals who have celiac disease cannot tolerate a protein called **gluten**, which is present in wheat, rye, and barley. When people with celiac disease eat foods containing gluten, their immune system reacts, resulting in damage to the lining of the small intestine. Celiac disease can be diagnosed with blood tests and by examining a small piece of the intestine from a biopsy.

The May 18, 2005, issue of *JAMA* includes an article reporting that infants who had initial exposure to foods containing wheat, barley, or rye either in the first 3 months of life or after 6 months were at increased risk for celiac disease. This Patient Page is adapted from one originally published in the March 20, 2002, issue of *JAMA*.

## SYMPTOMS OF CELIAC DISEASE

Celiac disease symptoms may start in childhood or adulthood, with onset and severity influenced by the amount of gluten that is eaten.

Symptoms include

- Stomach pain, gas, and bloating
- Chronic diarrhea
- Pale, foul-smelling bowel movements
- Weight loss
- Bone or joint pain
- **Dermatitis herpetiformis**, a painful rash of itchy blisters
- Stunted growth (in children)

## TREATMENT

There is no specific medicine or surgery to treat celiac disease. The only cure is strict and complete avoidance of gluten. Following a gluten-free diet is a lifetime requirement for individuals with celiac disease. A gluten-free diet will stop symptoms and allow for healing of the intestinal damage. Gluten-free flour, bread, pasta, and other products are available.

### Recommended Gluten-Free Foods

Breads or baked goods prepared from corn, potato, rice, or soy flours or from cornmeal

Cereals prepared from soy, corn (hominy), rice, cornmeal, or quinoa

Noodles and pasta prepared from rice or other allowed ingredients

All meats, chicken, and fish

Milk and unprocessed cheese

Dried beans, nuts, and peanut butter

Corn and rice

Unprocessed fruits and vegetables

### Gluten-Containing Foods to Avoid

Breads or baked goods prepared from wheat, barley, or rye

Cereals made from wheat, rye, or barley

Pasta prepared from wheat, rye, barley, or semolina

Creamed or breaded vegetables

Salad dressings, gravies, sauces, and soups prepared with gluten-containing ingredients

## FOR MORE INFORMATION

- Celiac Disease Foundation  
818/990-2354  
[www.celiac.org](http://www.celiac.org)
- Celiac Sprue Association  
877/272-4272  
[www.csaceliacs.org](http://www.csaceliacs.org)
- National Institute of Diabetes and Digestive and Kidney Diseases  
301/654-3810  
[www.niddk.nih.gov](http://www.niddk.nih.gov)

## INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on nutrition was published in the April 26, 2000, issue.

Sources: American College of Gastroenterology, American Gastroenterological Association, Celiac Disease Foundation, Celiac Sprue Association, Mayo Clinic, National Institute of Diabetes and Digestive and Kidney Diseases

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