Sprue/Celiac Disease

CARIS DIAGNOSTICS HEALTH IMPROVEMENT SERIES

What is sprue/celiac disease? Sprue/celiac disease is an intestinal disorder that results from an exaggerated immune response to gluten (also called Gluten-Sensitive Enteropathy). Gluten is a protein found in wheat, rye and barley, and is present in many foods other than the obvious breads, cereals, and pastas. When people with sprue eat foods containing gluten, an allergic-like reaction by their immune system results in damage to the normal, tiny, fingerlike protrusions (villi) of the lining of the small intestine. Nutrients from food are normally absorbed into the bloodstream through these villi. Damage to the villi results in reduced and ineffective absorption. Because the body's own immune system causes the damage, sprue/celiac disease is considered an autoimmune disorder.

Who gets sprue/celiac disease? Sprue/celiac disease is an inherited disease found especially, but not exclusively in those of Northern European descent. Sprue/celiac disease is the most common genetic disease in Europe. Recent studies show that one in every 133 people in the United States has the disease.

What are the symptoms? Many patients complain of abdominal bloating. Many suffer from nausea, diarrhea, and even constipation. Other symptoms can include weight loss, gas, bone pain, anemia, fatigue, and muscle pain. Some patients develop an associated condition called dermatitis herpetiformis, an itchy, blistering skin condition that appears on the arms, legs, and sometimes the torso.

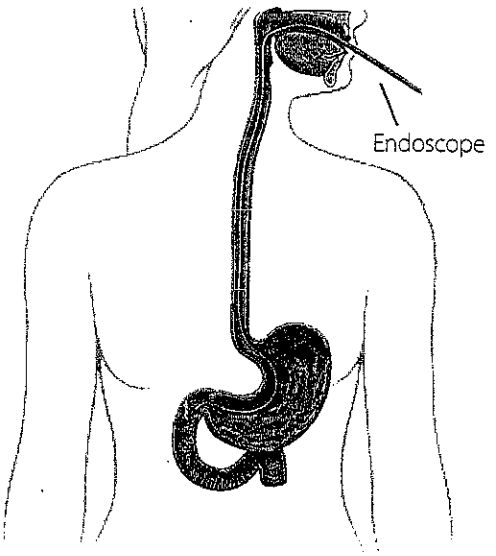
How is sprue/celiac disease diagnosed? Diagnosing sprue/celiac disease is difficult because many of the symptoms are similar to those of other disorders, such as irritable bowel syndrome, diverticular disease, intestinal infections, and ulcerative colitis.

Physicians look for evidence of sprue/celiac disease using tests to check blood levels of certain antibodies. Detection of anti-endomysial and anti-tissue transglutaminase antibodies are among two tests that produce positive results in 90 percent of people with sprue/celiac disease. Also, a biopsy may be performed endoscopically to absolutely confirm the diagnosis. An endoscope is a small tube with a camera inside which is inserted through the mouth and stomach that allows the physician to see the small intestine and obtain a biopsy sample *(See Figure 1)*. This sample is then examined under a microscope by a surgical pathologist, preferably one with subspecialty training in gastrointestinal pathology. The pathologist can confirm the diagnosis, evaluate the efficacy of treatment, and also ensure that no other abnormalities are present.

Since sprue/celiac disease is a hereditary disease, it is typically recommended that first-degree relatives (parents, siblings, and children) be tested for the disease.

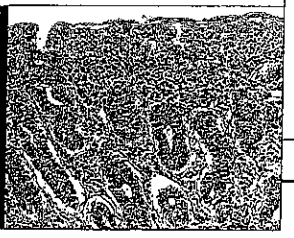
How is sprue/celiac disease treated? Currently, there is no specific cure for sprue/celiac disease; however, by making a lifelong commitment to eating a gluten-free diet, patients can become symptom-free, and the lining of the intestines can return to normal. Since gluten protein may be present in many food items, it is prudent for patients to review their diet with their physician or a dietitian.

FIGURE 1



An **endoscopy procedure** uses a small tube with a camera inside that is inserted through the mouth and stomach allowing the physician to see the inside of the duodenum.

The image at right shows inflammation and flattening of the surface lining of the small intestine (normally showing finger-like projections, or "villi").



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ADDITIONAL RESOURCES:

Celiac Disease and Gluten-Free Resource:
www.celiac.com

Celiac Disease Foundation:
www.celiac.org

Celiac Spruce Association:
www.csaceliacs.org

Cancer Institute:
1.800.4.CANCER / www.cancer.gov

American College of Gastroenterology:
703.820.7400 / www.acg.gi.org/patients

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