#### What is Gluten?

A protein found in wheat, rye, and barley. Gluten helps foods maintain their shape, acting as a glue that holds food together.



### ELIMINATE THE "Big 3"

WHEAT is commonly found in:

• Bread

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- Baked goods
- Soups
- Pasta
- Roux

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**RYE** is commonly found in:

- Rye bread (i.e. pumpernickel)
- Rye beer
- Cereals

BARLEY is commonly found in:

- Malt
- Food coloring
- Soups
- Malt vinegarBeer

Cereals

Sauces

Salad dressings



### HELPFUL RESOURCES

Celiac Disease Foundation has great information, research, support groups, involvement in the community, and health care resources, articles, and other information available. <u>www.Celiac.org</u> Celiac Central has printable guidelines, tips for gluten-free kids and parents, being gluten-free in college, and talking to your family about CD.

### http://www.celiaccentral.org

Celiac Disease Awareness Campaign

### http://www.celiac.nih.gov

Recipes and diet information resources

from Celiac.com www.celiac.com

If you suspect you have Celiac Disease, contact your doctor right away and get tested.





## Celiac Disease

# Food Allergy & Intolerance



### What is **Celiac Disease?**

Celiac disease (CD) is a lifelong, autoimmune condition that can occur in genetically predisposed people where the ingestion of gluten leads to damage in the small intestine. It is characterized by an abnormal immune response to a protein (called gliadin) from wheat gluten, and related proteins found in rye and barley.

CD is hereditary. People with a first-degree relative with CD have a 1 in 10 risk of developing the disease.

It can begin at any age and prevalence varies widely, although 2.5 million Americans are undiagnosed and at risk for long-term health complications.

### Can be associated with:

GLUTEN

- **Diabetes Mellitus Type I**
- Thyroid dysfunction
- **Dermatitis Herpetiformis**
- Muscle & joint pain Multiple sclerosis .
- . Short stature
- Anemia
- Lactose Intolerance
- Infertility
- Osteoporosis
- Epilepsy
- Migraines
- Intestinal cancers

### Screening

### **BLOOD TESTS & BIOPSY**

Elevated levels of antibodies indicate an immune reaction to gluten. These tests detect celiac disease even if you have only mild symptoms or none at all. A biopsy should also be done.

If your blood tests indicate celiac disease, your doctor may order an endoscopy to view your small intestine and to take a small tissue sample (biopsy) to analyze for damage to the villi.

### CAPSULE ENDOSCOPY

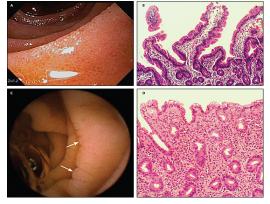
Capsule endoscopy uses a tiny wireless camera to take pictures of your entire small intestine. The camera sits inside a vitamin-sized capsule, which you swallow. As the capsule travels through your digestive tract, the camera takes thousands of pictures that are transmitted to a recorder.

Who should have blood tests? People with suspected celiac disease; People who have conditions associated with Celiac Disease; and First and second degree relatives of individuals with Celiac Disease.

# Signs and Symptoms

- Abdominal pain
- Bloating, gas, indigestion
- Decreased appetite
- Diarrhea
- Nausea & vomiting
- Lactose intolerance
- Unexplained weight loss
- Foul-smelling stool that is oily and/or sticks to toilet when flushed

- Dermatitis Herpetiformis
- Anemia
- Musculoskeletal problems
- Seizures
- Tingling sensations
- Aphthous ulcers
- Acid reflux & heartburn
- Missed menstrual periods
- Depression or anxiety
- Fatique



CONSEQUENCES OF CELIAC DISEASE

The immune system over-reacts to gluten in food and damages villi (tiny hair-like projections that line the small intestine) so you are unable to absorb vitamins, minerals, & nutrients properly.



Your health care provider will likely do blood work to measure the antibodies and order an intestinal biopsy to look for villi damage. They may order a repeat endoscopy after 6 months or one year on the gluten free diet to confirm that the damage is healing.