



Grains of truth about GLUTEN INTOLERANCE & WHEAT ALLERGIES

Definitions

Gluten intolerance can be diagnosed at any age and can be called a variety of names: celiac sprue, gluten-sensitive enteropathy, nontropical sprue, celiac disease, idiopathic steatorrhea or malabsorption syndrome.

Celiac Sprue is a genetic, inheritable immunologic disease which interferes with the digestion process. The disease may affect as many as 10 times more people than originally thought. Due to the fact it can take up to 10 years to diagnose. It is estimated 1 in 133 people in the U.S. may be affected with intolerance to the gluten in wheat and go undiagnosed. Gluten is the structure that holds the gas in bread to give it a light, airy texture. Gluten is a protein found in varying amounts in wheat, rye, barley and perhaps oats.

Foods that induce rhinitis, sinusitis, bronchitis, asthma, intestinal cramps, diarrhea, hives, angioedema, eczema and migraines are said to be "**allergenic**" in certain individuals. Approximately 1.5 percent of adults and 5 to 8 percent of children, who usually out grow them, suffer from **food allergies**.¹ **Food allergies** involve the immune system with most allergic reactions occurring within 2 hours. Reactions to an allergen may also occur within seconds or take as long as 24 hours.² According to the Food Allergy and Anaphylaxis Network, milk, egg, peanut, tree nut, fish, shellfish, soy and wheat are the most common foods to cause allergic reaction.³

Food intolerances may also cause adverse reactions and symptoms may be similar to food allergies. The key difference between a **food allergy** and **food intolerance** is, that a food intolerance does not trigger the immune system. Since celiac sprue, wheat allergy and wheat intolerance are different diagnoses, treatment may be different. For example, some people with wheat allergies are not gluten intolerant and can eat rye, barley and oats.

Symptoms

The most common symptoms of **gluten intolerance** include cramps, diarrhea, growth failure in children, loss of appetite and menstrual irregularities. The ability of the small intestine to absorb fat is affected

and thus fat-soluble vitamin absorption is reduced. Because carbohydrate and protein absorption is also affected, malnutrition can result if not treated.

Children are especially vulnerable because of their growth needs. If treated through a gluten-free diet, teenagers may seem to "out-grow" the symptoms; however, celiac sprue still exists and the need to eliminate gluten from their diet is for life.

Doctors can biopsy the small intestine to diagnose celiac sprue. If eliminating all gliadin from the diet relieves the symptoms, the diagnosis is conclusive.

A **wheat "allergy"** may manifest itself in a variety of symptoms including breathing disorders, skin rashes, cramps and migraine headaches.

If you suspect wheat allergy or gluten intolerance, please consult with your physician. Too many people self diagnose and may be eliminating important nutrients from their diet.

Shopping for gluten & wheat-free products

Gluten intolerant and wheat-allergic individuals quickly learn to read food labels and ask numerous questions at restaurants. It may be necessary to write to the food manufacturer to discover the content of some processed foods. Many commercially processed foods contain gliadin.

Key words to watch for in addition to wheat, barley, rye and oats are: farina, flour, caramel coloring, enriched flour, cereal, hydrolyzed vegetable protein, malt flavoring or extracts, MSG, modified food starch, emulsifiers, stabilizers, distilled vinegar, semolina, durum, and triticale.

Rice and corn pastas are available in specialty stores. Some processed and flavored cheeses contain oat stabilizers. Many canned soups, some pie fillings and salad dressings contain gluten as a thickener. Read the labels on catsups, mustards, soy sauce and other condiments as many contain gluten. Processed and canned meats are often risky. On page two is a list of web sites that can provide helpful information.

☐ The Gluten-Free Pantry: www.glutenfree.com

- Bob's Red Mill: www.bobsredmill.com/glutenfree
- ENER-G Foods, Inc.: www.ener-g.com
- Specialty Foods Shop:
www.SpecialtyFoodShop.com
- Living Without Magazine: www.livingwithout.com

Cooking for a gluten-free diet

Experimentation is a must for gluten-intolerant people. The flavor and texture of baked goods is vastly different from wheat-based products.

Combining flours may be more acceptable than using one single type of flour. Rice, potato flour, potato starch, soybean, corn, arrowroot and tapioca are all allowable. A popular combination is two cups white rice flour, two-thirds cup potato starch flour and one-third cup tapioca flour. (Don't try to make your own tapioca flour from tapioca.)

- Rice flour is probably the most commonly used flour. White rice flour is bland and is an excellent thickener. Brown rice flour and rice bran are good for quick breads.
- Soy flour has a strong flavor, but is nutritious and excellent if blended with other flours. In small amounts, such as in thickening, it can be substituted straight across for wheat flour.
- Corn meal, corn flour and cornstarch are all excellent substitutes for wheat flour in quick breads and for thickening.
- Tapioca flour is good for thickening: Substitute 2 teaspoons of quick-cooking tapioca for 1 tablespoon of wheat flour.
- Potato flour has a strong potato taste, but is good blended with other flours.
- Potato starch flour has a bland taste and is good for thickening and baking.
- When baking, increase the amount of leavening, bake longer at a lower temperature and in smaller batches.

Dining out on a gluten-free diet

Don't be afraid to ask questions of the wait-person or you may want to call ahead so the restaurant has time to research your questions. When flying, order a gluten-free meal when ticketing.

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- Fresh fruits and vegetables are safe when not sprayed with preservatives or stabilizers to enhance shelf-life.
- Order grilled, roasted or broiled meats without breading.
- Lemon juice or pure vegetable oils and selected wine or rice vinegar (not distilled) are safer than salad dressings.
- Deep-fried foods, even if they are not breaded, may be risky because of "cross-contamination" in the oil from frying breaded foods.
- Sherbet is usually safer than ice cream because some ice creams do contain gluten additives (flour-coated nuts, etc). Look for sherbets without artificial flavorings and colorings.
- Ask for rice crackers as a substitute for bread.

For additional information

- The Celiac Sprue Association, P.O. Box 31700, Omaha, NE 68131-0700
Phone: 402-558-0600 Fax: 402-558-1347
E-Mail: celiacs@csaceliacs.org
URL: www.csaceliacs.org
- The Gluten-Intolerance Group of North America, 15110 10th Ave., SW, Suite A, Seattle, WA 98102-0353. Phone: 206-246-6531 Fax: 206-246-6652
E-Mail: info@gluten.net
URL: www.gluten.net
- The American Dietetic Association, 216 W. Jackson Blvd., Chicago, IL 60606-6995. Phone: 800-366-1655
- Food Allergy & Anaphylaxis Network, 10400 Eaton Place, Ste. 107, Fairfax, VA 22030
URL: www.foodallergy.org

¹ Sampson and Ho, 1997; Plaut, 1997. Krause's Food, Nutrition and Diet Therapy. 10th ed. 2000.

² Krause's Food, Nutrition and Diet Therapy. 10th ed. 2000, pp916, 924.

³Food Allergy and Anaphylaxis Network. 2002, reviewed online 4/18/02.



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