



## Healthy Lifestyle

# Nutrition and healthy eating

By Mayo Clinic Staff

A gluten-free diet is a diet that excludes the protein gluten. Gluten is found in grains such as wheat, barley, rye, and a cross between wheat and rye called triticale.

A gluten-free diet is primarily used to treat celiac disease. Gluten causes inflammation in the small intestines of people with celiac disease. Eating a gluten-free diet helps people with celiac disease control their signs and symptoms and prevent complications.

Initially, following a gluten-free diet may be frustrating. But with time, patience and creativity, you'll find there are many foods that you already eat that are gluten-free and you will find substitutes for gluten-containing foods that you can enjoy.

The gluten-free diet is a treatment for celiac disease. Some people who don't have celiac disease also may have symptoms when they eat gluten, however. This is called non-celiac gluten sensitivity.

People with non-celiac gluten sensitivity may benefit from a gluten-free diet. But people with celiac disease must be gluten-free to prevent symptoms and disease-related complications.

Switching to a gluten-free diet is a big change, and like anything new, it takes some getting used to. You may initially feel deprived by the diet's restrictions, especially if you weren't having troubling symptoms before your diagnosis.

It may help to try to focus on all the foods you can eat instead, however. You may be pleasantly surprised to realize how many gluten-free products, such as bread and pasta, are now available. Many specialty grocery stores sell gluten-free foods. If you can't find them in your area, check with a celiac support group or search online.

If you're just starting with a gluten-free diet, it's a good idea to consult a dietitian who can answer your questions and offer advice about how to avoid gluten while still eating a healthy, balanced diet.

## Allowed foods

Many healthy and delicious foods are naturally gluten-free:

- Beans, seeds and nuts in their natural, unprocessed form
- Fresh eggs
- Fresh meats, fish and poultry (not breaded, batter-coated or marinated)
- Fruits and vegetables
- Most dairy products

It's important to make sure that they are not processed or mixed with gluten-containing grains, additives or preservatives. Many grains and starches can be part of a gluten-free diet, such as:

- Amaranth
- Arrowroot
- Buckwheat
- Corn and cornmeal
- Flax
- Gluten-free flours (rice, soy, corn, potato, bean)
- Hominy (corn)
- Millet
- Quinoa
- Rice
- Sorghum
- Soy
- Tapioca
- Teff

### **Always avoid**

Avoid all food and drinks containing:

- Barley (malt, malt flavoring and malt vinegar are usually made from barley)
- Rye
- Triticale (a cross between wheat and rye)
- Wheat

Avoiding wheat can be challenging because wheat products go by numerous names. Consider the many types of wheat flour on supermarket shelves — bromated, enriched, phosphated, plain and self-rising. Here are other wheat products to avoid:

- Durum flour
- Farina
- Graham flour
- Kamut

- Semolina
- Spelt

### **Avoid unless labeled 'gluten-free'**

In general, avoid the following foods unless they're labeled as gluten-free or made with corn, rice, soy or other gluten-free grain:

- Beer
- Breads
- Cakes and pies
- Candies
- Cereals
- Communion wafers
- Cookies and crackers
- Croutons
- French fries
- Gravies
- Imitation meat or seafood
- Matzo
- Pastas
- Processed luncheon meats
- Salad dressings
- Sauces, including soy sauce
- Seasoned rice mixes
- Seasoned snack foods, such as potato and tortilla chips
- Self-basting poultry
- Soups and soup bases
- Vegetables in sauce

Certain grains, such as oats, can be contaminated with wheat during growing and processing stages of production. For this reason, doctors and dietitians generally recommend avoiding oats unless they are specifically labeled gluten-free.

You should also be alert for other products that you eat or that could come in contact with your mouth that may contain gluten. These include:

- Food additives, such as malt flavoring, modified food starch and others
- Medications and vitamins that use gluten as a binding agent

### **Watch for cross-contamination**

Cross-contamination occurs when gluten-free foods come into contact with foods that contain gluten. It can happen during the manufacturing process, for example, if the same equipment is used to make a variety of products.

Some food labels include a "may contain" statement if cross-contamination is likely. But be aware that this type of statement is voluntary.

Foods may also be labeled as "gluten-free." If a product carries a gluten-free label, the Food and Drug Administration requires that the product contain less than 20 parts per million of gluten. Be aware that products labeled "wheat-free" may still contain gluten.

You still need to check the actual ingredient list. If you're not sure whether a food contains gluten, don't buy it or check with the manufacturer first to ask what it contains.

Cross-contamination can also occur at home if foods are prepared on common surfaces or with utensils that weren't thoroughly cleaned after being used to prepare gluten-containing foods. Using a common toaster for gluten-free bread and regular bread is a major source of contamination, for example. Consider what steps you need to take to prevent cross-contamination at home, school or work.

Be careful about eating out at restaurants. Ask restaurant staff members if they have choices that are truly gluten-free, including being prepared so as to avoid cross-contamination.

People with celiac disease who eat a gluten-free diet experience fewer symptoms and complications of the disease. People with celiac disease must eat a strictly gluten-free diet and must remain on the diet for the remainder of their lives. In some severe cases, a gluten-free diet alone can't stop the symptoms and complications of celiac disease, and additional treatment is needed.

### **Not getting enough vitamins**

People who follow a gluten-free diet may have low levels of certain vitamins and nutrients in their diets. Ask your dietitian to review your diet to see that you're getting enough of these key nutrients:

- Iron
- Calcium
- Fiber
- Thiamin
- Riboflavin
- Niacin
- Folate

### **Not sticking to the gluten-free diet**

If you accidentally eat a product that contains gluten, you may experience abdominal pain and diarrhea. Some people experience no signs or symptoms after eating gluten, but this doesn't mean it's not damaging their small intestines. Even trace amounts of gluten in your diet may be



damaging, whether or not they cause signs or symptoms. Over time, not following a gluten-free diet if you have celiac disease can lead to serious complications including small intestinal cancer.

## References

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Nov. 25, 2014

Original article: <http://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/gluten-free-diet/art-20048530>

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