## Gluten-Free Diet: General Information

- Gluten is a protein found in certain grains such as wheat, barley, and rye.
- Anyone with celiac disease must follow a gluten-free diet.
- Read the ingredient list on the food label to see if a product is gluten-free.

You may have heard about the gluten-free diet on TV or read about it in a magazine or online. Despite what some people may think, the gluten-free diet is not a weight loss diet. The gluten-free diet is recommended by a health care provider for people who have either been diagnosed with celiac disease, an autoimmune disorder that's triggered by gluten, or with non-celiac gluten sensitivity. In these cases, a gluten-free diet must be followed to heal the body. Following a gluten-free diet can seem overwhelming at first, but it's really not as hard as it might seem. Once you learn which foods to avoid and which foods you can eat comfortably, you'll feel much better.

What is gluten? Gluten is a protein complex found in the grains wheat, barley, and rye. Flours made from these grains are commonly used to make foods such as breads, cereals, pasta, pizza, and baked goods. The gluten in these foods gives them the elastic texture and it helps provides the structure of the food. Why would someone need to follow a gluten-free diet? Anyone with celiac disease should follow a gluten-free diet. If your health care provider tells you that you have gluten sensitivity you should also follow a gluten-free diet.


In a healthy person, nutrients get absorbed by villi in the small intestine and go into the bloodstream. B. In a person with Celiac Disease, the villi have been damaged by inflammation, so fewer nutrients pass into the bloodstream.

## What is celiac disease?

Celiac disease is an autoimmune disorder that is triggered when gluten-containing foods are eaten. An autoimmune disorder is one in which the body's immune system attacks an organ. When a person with celiac disease eats a food with gluten in it, the immune system launches an attack against the small intestine which damages the lining of the intestine. Noticeable symptoms of celiac disease are diarrhea, abdominal (stomach) pain, unintentional weight loss, anemia, poor appetite, irregular periods, delayed growth, and delayed onset of puberty. Some teens will have almost no noticeable symptoms, but their health care provider may detect a nutritional deficiency (such as low vitamin D levels) or low bone mineral density.

Gluten is harmful for someone with celiac disease. Following a gluten-free diet heals your small intestine, and usually causes your symptoms of celiac disease to go away. Following a gluten-free diet may require a lot of work at first, but after a short time, it will seem more automatic. Instead of feeling limited, you will see that there are tons of delicious (gluten-free) options for you!

## What is gluten sensitivity?

Gluten sensitivity, also called non-celiac gluten sensitivity or gluten intolerance, can be diagnosed if a person doesn't have celiac disease or a wheat allergy (both of these tests are negative) but they have some similar symptoms and they feel better when they are on a gluten-free diet. While someone with gluten sensitivity will have similar symptoms as a person with celiac disease, they do not have the same intestinal damage. It's unclear whether people with gluten sensitivity need to be as strict about adhering to a gluten-free diet. There is no definitive test for gluten intolerance.

## I feel better when I don't eat gluten - do I need an official diagnosis from my health care provider?

If you think that you might have celiac disease, an allergy to wheat, or gluten intolerance, you should consult with a medical professional rather than simply starting to avoid gluten. Your health care provider will likely want to run some tests while you are still eating gluten in order to give you the best medical care.

## Things to keep in mind...

A gluten-free diet isn't always a healthy diet. Some people who follow a gluten-free diet may not get enough of certain nutrients, vitamins, and minerals in their diet such as fiber, iron, and calcium. Also, some gluten-free products can be high in calories and sugar. If you are diagnosed with celiac disease, it's best to meet with a nutritionist to develop a healthy, balanced meal plan and to identify if any vitamin or mineral supplements are necessary. It is not suggested that people follow a gluten-free diet if not medically necessary.

There are many hidden sources of gluten both in food and non-food products. Gluten could be in foods that you wouldn't expect -such as candy, sauces, soups, and marinades. Be sure to check products such as toothpaste, mouthwash, lipstick/gloss, glues, supplements, vitamins, and both prescription and over the counter medications. These potential sources of gluten are frequently overlooked:

- Medications: Both prescription and over-the-counter medications may contain gluten. For over-the-counter medications, check with your pharmacist. With prescription medications, ask your health care provider to write, "Medication must be gluten-free" on any prescriptions.
- Soaps, Shampoos, and Lotions: Many of these products contain wheat or oats. While gluten cannot be absorbed through the skin, it is important to be aware of this - especially if you have a habit of biting your finger nails or touching food after putting on lotion.
- Envelopes: Envelopes may have a gluten-containing adhesive. You should use self-adhesive envelopes or use a sponge to wet the adhesive kind.


## Gluten-Free Diet: Foods to Avoid vs. Safe Foods

## What foods do I avoid on the gluten-free diet?

Following a gluten-free diet means you should remove all foods that have gluten from your diet. Foods that contain gluten are "red-light foods" for anyone with celiac disease.

- Remove grains that contain gluten from your diet. You shouldn't eat any food that contains wheat, barley, or rye. Keep in mind that wheat has many forms. Avoid products that include bulgur, durum, graham, kamut, spelt, and semolina. These are all forms of wheat!
- Avoid all gluten-containing foods such as bagels, breads, beer, cakes, candy, cereals, crackers, cookies, dressing, flour tortillas, gravy, ice cream cones, licorice, malts, rolls, pretzels, pasta, pizza, pancakes, sauces, stuffing, soy sauce, veggie burgers, vegetarian bacon/vegetarian chicken patties (many vegetarian meat substitute products contain gluten) and waffles. Please note this is NOT a complete list. Fortunately, gluten-free varieties are available for most of these foods.
- Look for "hidden" sources of gluten. Avoid foods that list gluten-containing ingredients such as ale, barley, beer, bleached flour, bran, bread flour, brewer's yeast, brown flour, brown rice syrup, bulgur, couscous, dextrin (unless the source is gluten-free), durum, farina, farro, hydrolyzed vegetable (wheat) protein, gluten flour, graham flour, granary flour, groats, harina, kamut, malt, malt extract, malt syrup, malt vinegar, matzo, modified starch (unless the source is gluten-free), rye, orzo, semolina, self-rising flour, spelt, smoke flavoring, soy sauce, triticale, wheat germ, wheat and white flour, whole meal flour, and vegetable gum.


## What's important to know about barley?

Barley contains gluten and is frequently used to make malt. As a general rule, you should avoid natural or malt flavorings. If a food has "natural" or "malt" flavorings in the ingredient list, contact the company to see if these flavorings came from a non-gluten source.

## Do I need to avoid oats?

Oats may contain gluten because they're often processed in the same factories as wheat. It's best to check with your health care provider to see if you can eat traditional oats or if you need to look for certified gluten-free oats. To find out if your favorite brand of oatmeal is gluten-free, check the package each time you purchase them. You can also call the company or check the brand's website. Some brands, such as Bob's Redmill, Glutenfreeda, and GF Harvest make oatmeal that is certified gluten-free. When eating out or when in doubt, avoid oats.

## What foods are safe to enjoy on the gluten-free diet?

There are lots of delicious foods to enjoy! Many foods are naturally gluten-free, including milk, butter, cheese, fruits and vegetables, fresh meats, fish, poultry, eggs, beans, nuts, seeds, corn, quinoa, and rice. While most breads, pastas, cereals, and baked goods are made with grains and flours containing gluten, there are many grains and flours that are naturally gluten-free - and many products on the market made from these grains and flours. Think of these grains, and products made with them, as "greenlight" foods - in other words, safe to eat on the gluten-free diet!

## How can I tell if a food is gluten-free?

A product labeled "gluten-free", "no gluten" or "without gluten" is the fastest and easiest way to spot a gluten-free product. Manufactures can use these terms if they comply with the FDA rule of "glutenfree". Another way to tell if a product contains gluten is to read the allergen statement on packaged foods. The FDA food allergen labeling law requires food companies to label all foods that have wheat or contain wheat products. The allergen statement is found at the end of the ingredient list on packaged foods; if it says "contains wheat", this means it has gluten and it's a "red light" food.

The food labeling law does NOT apply to barley, rye, or oats. This means if the allergen statement does not include wheat, you need to continue reading through the ingredient list for the other sources of gluten described above. If you don't see any of those words in the ingredient list, then the food is most likely a "green light" food.

In the sample ingredient label below, the ingredients are circled in red and the allergen statement is circled in blue. This food, which contains whole grain wheat, is a "red light" food.


There is also a symbol that may appear on packaging of gluten free foods, which the Gluten Intolerance Group has deemed "Certified Gluten Free." This symbol represents that the food manufacturer has applied for and been granted certification of the product's status of gluten-free, by submitting test results showing that there is no gluten contained in the product.

You might notice that some food labels have the following statements and are unsure whether or not you should eat them. When in doubt, ask your dietitian or medical provider, but in general:

- "May contain traces of wheat" - AVOID
- "Made on shared equipment with wheat ingredients" - AVOID
- "Manufactured in a facility that also processes wheat ingredients" - OK


## Gluten-Free Diet: Buying Gluten-Free Foods

## .How can I still eat my favorite foods?

Eating and baking gluten-free has become much easier than in the past as more companies now make gluten-free foods. You can now buy gluten-free breads, rolls, pizza-crusts, buns, bagels, donuts, cookies, muffins, pretzels, cereals, and desserts. The following list of brands has a great selection of gluten-free foods which you can buy directly from their websites or at many grocery stores.

## Gluten-Free Diet: Eating At Home vs. Away

There are two basic ways to make gluten-free foods at home. Some families choose to make their kitchen completely gluten-free by throwing out all gluten containing foods and sanitizing or purchasing new cooking equipment and utensils.

Other families choose to keep gluten containing products in their kitchen but they have strict rules about storing and cooking foods that are gluten-free. If you and your family decide to keep foods with gluten in the kitchen, make sure you take actions to lower the risk of gluten cross-contamination.

Here are some great tips to lower the chances of gluten cross-contamination in your home kitchen:

- Keep gluten-free products in a separate cabinet
- Store gluten-free foods in airtight containers
- Store gluten-free flours and baking mixes in airtight containers in the freezer
- Buy separate butter, peanut butter, cream cheese, and other spreads (to prevent contamination with wheat bread crumbs)
- Use separate colanders, sponges, strainers, toaster, toaster ovens, bread machines, towels, dish rags, and wooden utensils for gluten-free cooking
- Clean counter tops, cutting boards, measuring cups and spoons, the microwave, pot holders, and baking pans well and often
- Wash all shared utensils before and after each use


## Eating Gluten-Free Away From Home

The best way to stay gluten-free when away from home is by planning meals and snacks ahead of time. That may sound hard, but following these tips can make it easier.

## Eating at school or on-the-go:

- Eat breakfast at home or pack a gluten-free breakfast to eat at school or on-the-go.
- Work with your parents, nutritionist, or school nurse to find gluten-free foods on the school breakfast and lunch menus.
- Pack your lunch in an insulated bag to eat at school or on-the-go.
- Keep gluten-free snacks such as fruit, cheese sticks, trail mix, snack bars, popcorn or nuts in your backpack for times when you need a quick snack.


## Eating at a restaurant:

If you're planning on eating at a restaurant, go to one that has a gluten-free menu or talk with the restaurant manager to find gluten-free menu items before ordering. Remember to tell the manager or chef that both the meal AND its preparation must be gluten-free. More and more restaurants are becoming gluten-free friendly and making it known on the menu. However, because "gluten-free" in some instances is seen as a trend rather than a medical necessity, it is important to tell the server or manager your level of sensitivity rather than just ordering something labeled gluten-free.

Some restaurants are easily able to make modifications to meals even if they do not have a separate gluten-free menu. When in doubt, always ask, even if the meal appears to be gluten free on the menu; usually not all ingredients are listed on the menu.

Hidden sources of cross-contamination at restaurants include using the same pans and utensils to bake gluten-free bread, using the water from boiling pasta to steam vegetables, and adding bread or flour to thicken soups.

