



# *Gluten-Free Living*

A guide for answering all those questions about going gluten-free.

Healthy Eating Tip of the Month— October 2015

---



## Is going *Gluten-Free* right for me?

Gluten is a protein found in wheat, rye, and barley that gives dough an elastic texture. Gluten is found in many products eaten by the average American. The decision to go gluten-free is not an easy one and should be discussed with your doctor and a dietitian. Following a gluten-free diet is not right for everyone. There are some people who have a medical reason to avoid gluten such as celiac disease or gluten sensitivity. It is important to note that research on celiac disease and gluten sensitivity is still being conducted and there is still a lot to learn about these diagnoses. Discussing new information with your doctor is important for either of these diagnoses.

### Celiac Disease:

- Celiac disease is an autoimmune disorder that causes damage to the small intestine when food containing gluten is eaten.
- Estimated to affect about 0.8% of Americans.
- Celiac disease appears to be genetic.
- Symptoms may include: stomach pain, gas, diarrhea, changes in mood, fatigue, weight loss, headaches, bone or joint pain and itchy/blistery skin rash.
- Symptoms can occur at any point after eating gluten, some people may not experience any symptoms.
- Celiac disease may develop at any time in life.
- People diagnosed with celiac disease will need to follow a gluten-free diet for life. The gluten-free diet is currently the only known treatment for celiac disease.
- Your doctor can perform tests to check for celiac disease.

### Gluten Sensitivity:

- Gluten sensitivity is a non-specific immune related response to gluten that is less severe than celiac disease with no damage to the small intestine.
- Estimated to affect about 5.6% of Americans.
- Gluten sensitivity does not seem to be genetic.
- Symptoms are similar to celiac disease and include: stomach pain, gas, diarrhea, fatigue, “foggy brain”, headaches, etc.
- Symptoms usually start within hours of eating gluten.
- Gluten sensitivity may develop at any time in life.
- It is important to see your doctor if you believe you have gluten sensitivity. Often, patients are tested for celiac and if the test is negative the patient will trial a gluten-free diet to see if there is an improvement in symptoms.
- There is currently no test to check for gluten sensitivity.



## *Gluten-Free: Fact or Fiction?*

The internet, television shows, and magazines are bursting with information about going gluten-free, but how much of it is fact and how much is fiction?

**Fiction:** If I eat gluten-free I will lose weight.

**Fact:** Gluten does not make people gain weight or lose weight. People with a new diagnosis of celiac disease may initially gain weight when adopting a gluten-free diet due to the fact that their intestines are healing and they are absorbing more calories and nutrients. Remember that it is lifestyle choices we make and genetics that determine our weight. Eating a balanced diet and exercising are the keys to maintaining or achieving a healthy weight for anyone. It is also important to note that gluten-free processed foods are not any healthier than their gluten counterparts. Often, gluten-free packaged foods are higher in fat and sugar to compensate for the flavor and texture in the absence of gluten. A gluten-free diet is not meant for everyone and should be discussed with your doctor and a dietitian.

**Fiction:** The gluten-free diet has no adverse health effects.

**Fact:** There are many gluten-free products available in the market today. The problem is that most of them are not enriched, which can lead to vitamin deficiency. Gluten-free products have lower amounts of folate, iron, niacin, riboflavin, thiamine, and fiber than bread products made with wheat flour. If these nutrients are not replaced by other food sources a daily multivitamin may be necessary on a gluten-free diet. Studies have also shown that people on gluten-free diets often consume more fat because of decreased carbohydrate intake, which can lead to heart disease. Working with a dietitian can help ensure that you are eating a nutritionally balanced gluten-free diet.

**Fiction:** If the restaurant has a gluten-free menu then someone with celiac disease can assume it is safe to eat there.

**Fact:** Even if the restaurant has a gluten-free menu be sure to communicate your needs with the staff there. If a gluten-free product comes into contact with a product or surface (such as frying oil or a counter top) that contains gluten it can become contaminated. Contamination can contribute to a significant amount of gluten for someone with celiac disease. It is important to talk with your server and the cook about your medical condition to ensure food is prepared correctly and safely.

**Fiction:** If you suspect gluten is a problem, you should eliminate it from your diet on your own.

**Fact:** Before changing your diet be sure to talk with your doctor. The tests for celiac disease will only be accurate if you have been eating gluten prior to the test being completed. The tests look for specific antibodies the body makes in reaction to the gluten consumed. An accurate diagnosis is needed to determine if a strict, lifelong gluten-free diet is needed, or, in the case of gluten sensitivity, if limiting gluten in the diet would be enough. If tests for celiac disease are negative, then trialing a gluten-free diet may be necessary. If you feel better on a gluten-free diet this does not mean that you have celiac disease, but possibly a gluten sensitivity. In this case limiting gluten in the diet will be enough to improve symptoms.



# Golden Rules for going *Gluten-Free*

## Practical steps for going Gluten-free

After you have a discussion with your doctor about celiac disease or gluten sensitivity he or she may recommend beginning a gluten-free diet. The decision to begin a gluten-free diet can be overwhelming. It is a big life change. But, with these tips and tricks it can be much more manageable.

### What grains contain gluten?

Gluten is a protein found in wheat, rye, and barley. The gluten in wheat flour gives dough a stretchy texture that holds it together.

### Where can I buy gluten-free substitutes?

Many stores now have gluten-free sections in the aisles and the freezer section. Look for gluten-free symbols or the words “gluten-free” somewhere on the packaging. New laws state that any food labeled gluten-free must meet FDA standards for gluten-free. There are many options for gluten-free breads, pastas, wraps, crackers, cakes, cookies, brownies, and other baked goods. Beware though, just because a product is labeled gluten-free does not make it healthier. Often processed gluten-free products are higher in fat or sugar to make them taste better. It is important to remember to consume a healthy balanced diet with plenty of fruits and vegetables.



This is one symbol found on food packaging indicating the food is gluten-free

### What grains do not contain gluten?

There are many grains that are naturally gluten-free. These include: rice, cassava, corn, soy, potato, millet, quinoa, chia, flax, nut flours and gluten-free oats are just a few grains that do not contain gluten. There are many gluten-free grain options that you may already eat! There also may be some you do not recognize. Experiment with different recipes to see what grains work best for you.

### What foods are naturally gluten-free?

Many healthy foods are naturally gluten-free and are listed below.

- ◆ Vegetables
- ◆ Fruits
- ◆ Eggs
- ◆ Dairy products
- ◆ Meats and poultry
- ◆ Fish and seafood
- ◆ Beans, legumes and nuts

### Attitude is everything!

It is very important to focus on all the foods you can eat while following a gluten-free diet. Keeping a good attitude is important for success in following this diet. There are many healthy and nutritious meals that you can make without gluten. There are probably some recipes you have always enjoyed that are naturally gluten-free!



# Golden Rules for going *Gluten-Free*

## Practical steps for going Gluten-free

### How do I use gluten-free substitutes?

The most common flour used today is wheat flour. In order to make homemade desserts or breads try using a gluten-free flour blend. These usually include brown rice flour, tapioca flour, sorghum flour, almond flour, millet flour, corn flour and xanthan gum. There are many different combinations of blends that can be found on the internet or in cookbooks, or you can purchase pre made blends in the grocery store. Also, wheat flour is often used as a thickener in sauces, soups, and gravies. Try using cornstarch in your favorite recipes as a thickener.

### What are hidden sources of gluten?

There are many foods that obviously contain gluten such as bread and baked goods made with wheat flour. Gluten can be hidden in foods such as cereal, soups and sauces, produce, and beverages.

Some cereal labels say that the cereal is made mostly of corn or rice, but it is important to read the entire label to make sure that gluten is not in the flavoring. It is also important to look at sauces and soups as they are often thickened with wheat flour. Soy Sauce is another grocery item that also commonly contains gluten. Processed fruits and vegetables in a can may contain hidden gluten. Always read labels to be sure what you are buying is gluten-free. Beverages such as beer, ales, and malt beverages are made with gluten so they should not be consumed unless they are labeled gluten-free.

### Label Reading: Tips and Tricks

Gluten can be hidden in many products. Once the decision to go gluten-free is made, it is important to become an expert at label reading. The following is a list of ingredients that indicate gluten is in the product.

- ◆ Atta
- ◆ Breading/bread stuffing
- ◆ Bulgur
- ◆ Durum
- ◆ Emmer
- ◆ Einkorn
- ◆ Farro/spelt
- ◆ Graham flour
- ◆ Hydrolyzed wheat protein
- ◆ Kamut
- ◆ Malt, malt extract, malt syrup
- ◆ Modified wheat starch
- ◆ Semolina
- ◆ Panko
- ◆ Wheat bran, wheat germ or wheat starch

**It is important to read labels every time you purchase an item as ingredients in processed foods can change.**



# Gluten-Free Grains

## Taking the fear out of gluten-free baking

Going gluten-free is difficult. It often means giving up many favorite baked goods for gluten-free versions. Baking with gluten-free products is different than baking with wheat flour. But, with this brochure you will be making delicious gluten-free baked goods in no time!

**What wheat does:** Wheat flour is multifunctional because it has both protein and starches. This mixture of starch and protein make pie crusts flaky, breads crusty and cookies chewy. That's why there is no one flour that is a good substitute for it. Because of this, the only way to make gluten-free foods taste as good as the original is to make flour blends. Usually blends include many gluten-free flours such as rice flour, sorghum flour, tapioca flour, almond flour, coconut flour, and cornstarch. You can buy these flour blends in the store but you can also make your own. It is usually cheaper to buy the individual flours in bulk off the internet and mix them yourself. There are recipes for flour blends in cookbooks and on the internet.

### Store bought flour blends

There are many gluten-free flour blends you can buy in the store. Some brands to keep a look out for are Glutino, Cup4Cup, King Arthur, Bob's Red Mill, Domata. Read the label to be sure that there is a mix of flours not just rice flour exclusively. It is very important to have a mix for the best baking results.

### Flour Blends

Usually flour blends include many gluten-free flours such as rice flour, sorghum flour, tapioca flour, almond flour, coconut flour, and cornstarch. You can buy these flour blends in the store but you can also make your own. It is usually cheaper to buy the individual flours in bulk off the internet and mix them yourself.

### Gluten-free Flour Blends

There are many flours out there made from gluten-free grains. Some are listed below.

#### Whole Grain Flours:      White Starches/Flours:

Brown rice flour	Arrowroot flour
Corn flour	Cornstarch
Millet flour	Tapioca Flour
Sorghum flour	White rice flour

The best blends will have a mix of whole grains, which are rich in protein and nutrients and the white starches/flours, which provide the starch for the flour. The best mixes are about 40% whole grain and about 60% starches. So if you were making a 10 cup flour blend you would add 4 cups of the whole grain flours to 6 cups of the starches. This is where you can really experiment and decide what flours you like best.



# Gluten-Free Grains

## Taking the fear out of gluten-free baking

### **Common Problems and Solutions**

#### *1. The batter/dough is really sticky and thick.*

Do not worry if the dough looks sticky and thick. This is normal for gluten-free baked goods and breads

#### *2. The cookies are crumbly.*

Make sure you add some xanthan gum. This is what gives dough elasticity and holds the baked good together.

#### *3. The bread was tough.*

Beating the dough thoroughly before baking adds air, making the dough fluffy. Be sure to mix the dough according to the recipe. If that does not work, try decreasing the amount of flour in the dough.

#### *4. The bread was burned on the outside but raw in the middle.*

Try lowering the oven temperature by 25° Fahrenheit. Bake gluten-free breads in bread pans lined with aluminum foil and not black, glass, or non-stick pans. If the outside is getting brown too fast try covering the bread with foil while baking.

#### *5. The pancakes were dense.*

Try whipping egg whites until they are light and fluffy. Then fold the egg whites into the batter. Do not over mix the batter.

#### *6. The baked good was dry and hard in the morning.*

Gluten-free baked goods can go dry or become stale very fast. Be sure to wrap them tightly when storing them. Also try to store them in the refrigerator or freezer.

#### *7. Breading Ideas.*

To make breaded chicken or fish try crushing corn flakes to use as breading. There are also gluten-free bread crumbs you can buy. Try making a mixture of corn flakes and gluten-free bread crumbs for an extra crunch!

#### *8. One last tip.*

In gluten-free baking the most important thing to do is follow the recipe exactly as written. If it says to beat for 5 minutes then beat your dough for 5 minutes. Also, be sure to use the correct ingredients as called for in the recipe.

### **What is xanthan gum?**

Xanthan gum is often necessary in gluten-free baking. It gives gluten-free dough elasticity. It can be very expensive to purchase, so look for sales online. It is also helpful to know that you use very little in each recipe, usually between one teaspoon and two tablespoons, so a one time purchase will go a long way. Store bought flour blends often have xanthan gum already included.



## References

- *American Celiac Disease Alliance*. Web. Accessed March 10, 2015. <http://americanceeliac.org/>
- *Celiac Disease Foundation*. Accessed March 10, 2015. <http://celiac.org>
- *National Foundation for Celiac Disease Awareness*. Accessed March 10, 2015. <http://www.celiaccentral.org>
- *National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)*. Accessed March 10, 2015. <http://www.niddk.nih.gov/Pages/default.aspx>
- *The Gluten Intolerance Group*. Accessed March 10, 2015. <http://www.gluten.net>



**University of Michigan  
Health System**

Created by: Rebecca Zielinski, Dietetic Intern

Patient Food and Nutrition Services

300 N. Ingalls Street

NIB N18E20

Ann Arbor, MI 48109---5407

(734) 936---5197