

## Wheat Allergy Diet

The only treatment for someone with food allergies is to avoid the food they are allergic to. Wheat protein is present in a wide variety of food products. This means you need to closely read the labels of any processed food. Wheat is often used in baked goods, pasta, crackers and cereal, as well as some sauces, candies, processed meats, soups and salad dressings.

A wheat allergy is not the same as Celiac Disease, in which a person needs to follow a gluten free diet. Someone with a wheat allergy will have an instant reaction to eating wheat. This may include hives, face swelling and vomiting. It is called a type 1 hypersensitivity. Celiac disease is a disorder of the immune system. Both need to avoid wheat in their diet but for different reasons.

**US food manufacturers are required to list ingredients by their common names for the top 8 allergenic foods. The top 8 allergenic foods in the United States are eggs, milk, soy, wheat, peanut, tree nuts, fish, and shellfish.**

**It is still very important to that you read the labels of all store-bought food and avoid all forms of wheat protein.** If unsure, call the maker of the product to find out more about the food item.

Read labels each time you shop, since ingredients change often. Sometimes products have the phrase “may contain wheat” or “made in a facility that processes wheat” on them. You will want to avoid these foods as well.

### Label ingredients which show the presence of wheat are:

- All-purpose flour
- Bran
- Breadcrumbs
- Bulger
- Cake flour
- Cereal extracts
- Couscous
- Cracker meal
- Durum
- Enriched flour
- Farina
- Graham flour
- Gluten flour
- High-protein flour
- Kamut
- Malt
- Pastry flour
- Seitan
- Semolina
- Spelt
- Sprouted wheat
- Triticale
- Unbleached wheat flour
- Wheat, wheat bran
- Wheat berries
- Wheat flakes
- Wheat flour
- Wheat germ
- Wheat gluten
- Wheat meal
- Wheat starch
- White flour
- Whole wheat flour

Label ingredients which **may** show the presence of wheat are:

- Gelatinized starch
- Starch
- Natural flavoring
- Soy sauce
- Modified starch
- Modified food starch
- Monosodium glutamate (MSG)
- Hydrolyzed vegetable protein
- Vegetable gum
- Vegetable starch

### **Drinks You Can Eat**

- Milk; coffee; tea
- Fruit and vegetable juices
- Carbonated drinks

### **Drinks to Avoid**

- Malted and cereal drinks, malted milk
- Beer, ale, gin, some whiskey
- Instant coffee (not 100%)
- Coffee substitutes
- Prepared milk drinks made with cereal/malt

### **Breads/Grains You Can Eat**

- Breads made from pure potato, arrowroot, corn, soybean flours/starches
- Rice wafers or crackers
- Buckwheat (is not wheat)
- Amaranth
- Flax
- Hominy
- Maize
- Montina<sup>®</sup> Flour (Indian Rice Grass)
- Millet
- Legume flours (peas, lentils, beans)
- Quinoa
- Rice bran
- Sesame, sunflower
- Tapioca

- Tef
- Sago
- Sorghum
- Gluten-free breads

### **Breads/Grains to Avoid**

- Breads made from wheat/white/all-purpose flour
- Wheat germ
- Wheat germ
- Bulgar
- Graham flour
- Most crackers, croutons, pretzels, melba toast
- Matzo/matzo meal/matzo products
- Donuts
- Biscuits, muffins, rolls, popovers
- Pancakes, waffles
- Store bought tortillas
- Store bought rye and soy breads
- Kasha
- Kamut
- Triticale
- Semolina or Durham wheat
- Einkorn
- Emmer
- Farro
- Spelt
- Farina/cream of wheat
- Communion wafers
- Bulk flours due to cross contamination

### **Candy You Can Eat**

Hard candy and candy made without wheat.

### **Candy to Avoid**

Chocolate candies/bars and commercial candies often have wheat.

### **Cereal You Can Have**

- Oatmeal
- Rice cereals
- Cornmeal
- Barley
- Grits
- Can use gluten-free cereals

### **Cereal to Avoid**

- Prepared cereals that contain bran or wheat
- All malted cereals
- Farina and cream of wheat
- Some oat cereals have wheat or wheat starch
- Check labels with care

### **Dairy You Can Have**

- Milk; milk products
- Dry/evaporated/condensed milk
- Aged cheese
- Plain yogurt
- Cream cheese
- Pure ice creams without wheat

### **Dairy to Avoid**

- Malted milk, some store-bought milkshakes
- Check imitation or low fat/fat free cheese
- Blue cheese may be grown on bread
- Check ice cream/yogurt (especially with added candy/chocolate)

### **Desserts You Can Have**

- Homemade desserts made without wheat
- Use wheat free or gluten-free recipes or mixes

### **Desserts to Avoid**

Any dessert that contains flour such as cakes, cookies, custards, dumplings fritters, doughnuts, ice cream, and cones, pastries, pies, puddings; commercial pie fillings

### **Fats You Can Have**

Butter, margarine, vegetable oil

### **Fats to Avoid**

None

### **Fruits You Can Have**

All fresh, dried, canned and cooked fruit

### **Fruits to Avoid**

- Any fruit prepared or mixed with breadcrumbs or flour
- Fritters

### **Meat/Substitutes You Can Have**

Plain meat, fish, poultry and cheese prepared without wheat products

### **Meat/Substitutes to Avoid**

- Meat, poultry, fish, cheese and other entrees that are prepared with or mixed with breadcrumbs, flour or bread
- Some processed meats such as sausage, bologna, liverwurst, lunch meats, salami, and hot dogs with wheat fillers or additives
- Canned meats, unless stated that it is pure
- Fish sticks and patties
- Imitation crab
- Bacon bits
- Textured vegetable protein or veggie patties may contain wheat
- Commercial Swiss steak, pot pies, quiches, meatballs, and meatloaf most likely contain wheat

### **Potato, Pasta, Grain You Can Have**

- Potatoes
- Rice
- Polenta
- Quinoa
- Amaranth

- Wheat-free noodles and pasta like corn, potato, rice, quinoa or soy pasta

### **Potato, Pasta, Grain to Avoid**

- Macaroni, noodles, spaghetti, linguine, ravioli, manicotti and any other pasta made with wheat
- Potatoes that are scalloped, creamed or au gratin with wheat products
- Couscous

### **Sauces You Can Have**

Sauces prepared without wheat flour or wheat products

### **Sauces to Avoid**

- Any sauce thickened with wheat flour
- Store bought sauce, gravy and some seasoning mixes

### **Soups You Can Have**

- Creamed and broth soups made at home, thickened with rice flour, potato flour, or cornstarch instead of wheat
- Gluten-free soups and broth

### **Soups to Avoid**

- Many broths contain wheat, check labels with care
- Soups that contain hydrolyzed vegetable protein, with noodles, dumplings or other pasta products
- Some creamed soups, bisques, chowders and minestrone

### **Spices You Can Have**

All pure spices and herbs

### **Spices to Avoid**

- Some spice blends contain wheat
- Malt vinegars, some soy sauces and ketchups may contain wheat

### **Sweets You Can Have**

- All sugars; honey, jam, jelly and syrups
- Pure ice creams just made with cream, milk, eggs and/or fruit

### **Sweets to Avoid**

- Candies with wheat additives
- Some ice creams (lower fat may contain wheat)
- Frozen desserts with wheat additives

### **Vegetables You Can Have**

Fresh, frozen or canned vegetables that are not prepared with wheat bread, flour or crumbs

### **Vegetables to Avoid**

- Vegetables that are scalloped or in sauces thickened with wheat flour
- French fried veggies if floured/breaded
- Vegetable casseroles, puddings or soufflés that contain bread

### **Non-Food Sources of Wheat**

Wheat is common in other non-food items. If you have a young child, you'll want to avoid:

- Makeup and hair products
- Medicines
- Vitamins
- Play dough
- Pet food
- Wallpaper paste or glue
- Paper Mache
- Mailing envelopes

### **Baking and Cooking Tips**

Home baking is a safe way of having wheat-free bakery products. Alternative flours produce great products and the nutritional content can be higher because they are less refined.

Some substitutes for 1 Tbsp. wheat flour:

- 1 tsp. potato starch flour
- 2 to 3 tsp. rice flour
- 1 tsp. arrowroot starch
- 2 tsp. tapioca flour
- 1 tsp. cornstarch

For larger recipes, try switching out 1 cup wheat flour with one of these:

- 7/8 cup rice flour
- 5/8 cup potato starch flour
- 1 cup soy flour plus 1/4 cup potato starch flour
- 1 cup corn flour

Non-wheat flours have different properties from wheat. This can make them much harder to use than wheat flour. You may need to play around with different flours and ratios of flour mixtures when changing standard wheat recipes. Expect to have a few failures along the way. Products made with non-wheat flours tend to be drier, coarser, and heavier.

Baking temperature should be lower than those used with wheat batter. Bread crusts will be rougher, and browning will be lighter.

Flours with less gluten such as rice, potato, and soy do not rise well. They will require more leavening than wheat flour. (Use about 2 teaspoons of baking powder for each cup of flour.)

Adding xanthan gum to bread batter can improve the texture.

Add dried fruits, wheat-free chocolate chips or nuts to the recipe to improve the texture. Frosting tends to improve the flavor and adds moisture to products.

Put the dough in the fridge before baking. This will make the dough for cookies and doughnuts for cookies with low gluten flours easier to handle and improve the texture of the final product.

Baking in smaller pan sizes also improves product texture. Baking at lower temperatures for longer periods of time may also improve product quality.

By mixing several flour substitutes rather than only one kind of flour, you will be able to make products more like regular wheat flour products.

Some flours will mix into batters better if they are sifted into the batter while mixing to prevent lumping. Add the flours slowly because they tend to thicken faster than wheat flour does.

When using no eggs, add only enough flour to make batter the same thickness as a normal, wheat flour cake batter. Adding more flour than this will produce a doughy, heavy product.

Cakes made with wheat-substitute flours will tend to be dry. Adding fruits or vegetables, like zucchini, pumpkin, carrots, or pureed fruit will often increase moisture and improve texture. They will also be a more nutritious product.

Sauces can be thickened with arrowroot, cornstarch, potato starch, rice starch or tapioca.

Wrap baked products tightly and store in the freezer when able. Low gluten products tend to absorb both moisture and flavors quickly.

### **Gluten Free Flour Mixture**

1 cup cornstarch  
2 cups brown rice flour  
3 cups soy flour  
3 cups potato starch

Sift well and store in covered container.  
Gluten-free all-purpose flour may substitute for wheat flour in most recipes.

### **Wheat-Free Play Dough**

1 cup corn starch  
1 pound baking soda  
1¼ cup water  
1 Tbsp. cooking oil  
Food coloring

Mix all ingredients together in a saucepan. Cook until mealy. Put on a plate and cover with a damp cloth. Allow to cool and knead. Note: This mixture does not keep very well, but it is fun for children who cannot use wheat-based dough. (Recipe from Celide Barnes Koerner and Hugh A. Sampson, M.D.)

### **Description of Flours and Starches**

#### **Barley**

It is good in quick breads, muffins, cookies, cakes, pie crusts. It is heavier than wheat and does not rise well in yeast. Use ½-1 cup in place of 1 cup wheat flour.

#### **Oat**

It is good in quick breads, cookies. It is slightly heavier than wheat and rises well. It has a mild flavor, similar to wheat. You can make it by blending quick cooking rolled oats in blender. Use 2/3-1 cup in place of 1 cup wheat flour.

#### **Potato Starch**

A very fine white flour which works well to thicken foods and can be used in baking when eggs are added to the recipe. It must

be well sifted to avoid lumping. It is best when combined with other flours in cakes/cookies. It is much heavier than wheat and does not rise well in yeast. It has a strong flavor. It is a good thickening agent in soups and gravies. Good for fish or poultry. Avoid use alone. Sub 10 Tbsp in place of 1 cup wheat flour; ¼ cup potato + 1 cup soybean; 1/3 cup potato + 2/3 cup rye; ¼ cup potato + ¾ cup rice.

#### **Rice Flour**

A white starchy flour milled from white rice. To reduce the grainy texture in the finished product, mix the rice flour in the liquids of the recipe and bring to a boil; then cool and add the rest of the ingredients. It is good in breads and cakes. It has a smooth to slightly grainy texture and does not mix well with yeast. Has a mild bland flavor. Products tend to have a similar texture to gelatin. Good for thickening gravies. Use 1 cup rice flour to 1 cup wheat flour; 5/8 cup rice flour + 1/3 cup rye flour; ¾ cup rice flour + ¼ cup potato flour.

#### **Rye Flour**

It is best in muffins or breads. It is heavier texture than wheat and does not rise well with yeast. It has a strong flavor. In yeast breads, double the amount of yeast and the rising time. Produces heavy quick breads. Products fall easily while baking – do not open oven door while baking. Use 1 ¼ cup rye flour to 1 cup wheat; 1/3 cup rye flour + 5/8 cup rice flour; 2/3 cup rye flour + 1/3 cup potato flour.

#### **Gluten Free Wheat Starch**

It is a white, fine wheat starch flour best used with eggs and milk.

#### **Soybean Flour**

It is a light yellow flour of high protein and oil content best used with potato starch flour.

### **Tapioca Flour**

It is a white velvety flour that works well to thicken sauces. Use ½ tsp cornstarch for 1 Tbsp wheat flour.

### **Cornstarch**

It is a refined starch obtained from corn. Best used to thicken foods. Use ½ tsp cornstarch for 1 Tbsp wheat flour.

### **Corn Flour**

It is a smooth flour milled from corn. Best if blended with other flours.

### **Cornmeal**

It is a coarsely ground corn best used with other flours.

### **Tips to Prevent an Allergic Reaction**

1. Avoid foods that cause a reaction. Sometimes just touching foods can cause a severe reaction.
2. Read the ingredients lists on food labels to make sure they don't contain wheat. Read the list even if you have had the product before. Ingredients may change.
3. When you travel bring along some of your own foods.
4. When you eat out, always ask restaurant staff about ingredients in food and how it was prepared. Call the restaurant in advance (not at a busy mealtime) and talk to the manager. Explain your allergy and when you would like to eat there. Most managers will guide you through their menu choices that will work for you. Do not order deep-fat fried foods unless they have a separate fryer, or the oil may be contaminated. If you order a grilled item, check if they have a separate

wheat-free grill. If they do not, ask them to grill the item on foil.

5. For infants, elemental formulas or formulas with altered protein should prevent food reactions. Talk with your doctor about your options. Do not assume products labeled "hypoallergenic" will not cause a reaction.
6. Make sure your pharmacist knows because sometimes wheat is used in medicines and supplements. You can call customer service for the maker of over the counter medicine to check, if the label is not clear.

### **Other Resources**

Food Allergy and Research and Education  
<http://www.foodallergy.org/>

Kids with Food Allergies  
<http://www.kidswithfoodallergies.org>

American College of Allergy, Asthma and Immunology  
[www.acaai.org](http://www.acaai.org)

National Institute of Allergy and Infectious Diseases  
<http://www.niaid.nih.gov/topics/foodallergy>

Someone with a wheat allergy can benefit from gluten free sites and information because a gluten free diet also avoids wheat products (as well as other grains). Be aware your diet might be more limited if you follow a gluten free diet.

Gluten-Free Website and Magazine  
[www.glutenfreeliving.com](http://www.glutenfreeliving.com)

Simply Gluten-Free  
[www.simplygluten-free.com](http://www.simplygluten-free.com)

### **Stores that Carry Wheat-Free Products**

- Metcalf’s Market, Pick ‘n Save grocery stores
- Trader Joe’s
- Whole Foods
- Willy Street Coop
- Woodmans
- Aldi stores

### **Who to Call**

If you are a UW Health patient and have more questions, please contact UW Health at one of the phone numbers listed below.

You can also visit our website at

[www.uwhealth.org/nutrition](http://www.uwhealth.org/nutrition)

Nutrition clinics for UW Hospital and Clinics (UWHC) and American Family Children’s Hospital (AFCH) can be reached at: **(608) 890-5500**.

Nutrition clinics for UW Medical Foundation (UWMF) can be reached at: **(608) 287-2770**.

If you are a patient receiving care at UnityPoint – Meriter, Swedish American or a health system outside of UW Health, please use the phone numbers provided in your discharge instructions for any questions or concerns.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2020 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#273