

A wheat free diet is the avoidance of the grain *wheat*. A wheat free diet is different from a gluten free diet. A wheat free diet does not require the avoidance of all gluten. Gluten is found in wheat, barley, rye, and some oats. Patients with celiac disease follow a gluten free diet. Celiac disease is not a food allergy. It is a disease of the GI tract.

Gluten-free is a claim that is now regulated by the FDA. Manufacturers can choose whether or not to put a gluten-free claim on the food label. If they add this claim to the label, the product must contain less than 20 parts per million of gluten. This means that the product could contain a small amount of wheat.

Gluten-free products may be safe for a wheat free diet, however, it is required that you read the ingredient list and allergy information to make sure the product is also wheat free. This means you can use the gluten-free claim to find options for wheat-free products, but you must still read the ingredient list to ensure the product is wheat-free.

Substitutes for wheat flour:

- **Amaranth Flour:** can be used to replace up to 25% of flour needed. Great for baking when combined with a non-grain flour.
- **Arrowroot Flour:** used to thicken recipes.
- **Banana flour:** made from unripe, green bananas. Has a bran-like taste.
- **Barley Flour:** used to thicken or flavor soups or stews. Has a moist, sweet, nut-like flavor. Can be used for biscuits, pancakes, cookies, and breads.
- **Brown Rice Flour:** helpful in a heavier product, but normally mixed with other flours because it is so heavy.
- **Buckwheat Flour:** not generally used on its own. Unique flavor that can be used in both quick and yeast breads.
- **Cassava Flour:** made from grating and drying cassava root.
- **Chia Flour:** made from ground chia seeds.
- **Chick Pea Flour** (Gram or Garbanzo Flour): not normally used on its own.
- **Coconut Flour:** made from dried, defatted coconut meat. Contains a light coconut flavor.
- **Coffee Flour:** made from coffee cherry fruit. Does not taste like coffee.
- **Corn Flour:** used to thicken recipes and sauces.
- **Cornmeal:** not generally interchangeable in recipes.
- **Hemp Flour:** made from ground hemp seeds. Has a mild, nutty flavor.
- **Lupin Flour:** made from a legume in the same plant
- **Millet Flour:** used to thicken soups and make flatbreads and griddle cakes.

- **Potato Flour:** very heavy with a strong potato flavor.
- **Potato Starch Flour:** light potato flavor, normally not noticed in recipes.
- **Oat flour:** made from ground oats. May not be gluten-free.
- **Quinoa flour:** has a nutty taste, higher in fiber and protein than other flours. Often used for baking. Makes baked goods more moist.
- **Rye Flour:** has a strong flavor. Often used to make bread, pancakes and muffins.
- **Sorghum Flour:** millet like grain that adds flavor to wheat free baking.
- **Soya (Soy) Flour:** has a nutty taste. Not used on its own, and can be used to thicken recipes or add flavor.
- **Tapioca Flour:** adds chewiness, and is a good thickener.
- **Teff Flour:** light whole grain flour, which adds a unique flavor for baking.
- **White Rice Flour:** very bland in taste. Can be used on its own for many things.

Flour Substitute Options

1 cup of wheat flour is equal to:

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| • 1 cup rye meal | • 1 cup millet flour |
| • 1-1 ¼ cups rye flour | • ½ cup of nuts-finely ground (almond, hazelnut) |
| • 1 cup potato flour | • 1 1/3 cup oat flour |
| • 1 1/3 cups rolled oats or oat flour | • ¾ cup soya (soy) flour |
| • ½ cup potato flour plus ½ cup rye flour | • 7/8 cup sweet rice flour |
| • 5/8 cup potato starch | • 1 cup tapioca flour |
| • 5/8 cup rice flour plus 1/3 cup rye flour | • 7/8 cup of white/brown rice flour |
| • 1 cup amaranth flour | • 1 cup sorghum flour |
| • 1 cup bean flour | • 7/8 cup teff flour |
| • 1 cup corn flour | |
| • ¾ cup corn meal | |

Xanthan Gum: Xanthan Gum is used to smooth out the texture of foods, and to hold them together.

- Use ¼ teaspoon of Xanthan Gum per 1 cup gluten-free flour for cakes.
- Use 1 teaspoon Xanthan Gum per 1 cup gluten free flour for breads.
- Use 2 teaspoons of Xanthan Gum per 1 cup of gluten free flour for pizza crusts.

Thickening agents that can be used as substitutes for 1 tablespoon of wheat flour:

- 1 ½ teaspoons cornstarch
- 1 ½ teaspoons potato starch flour
- 1 ½ teaspoons arrowroot starch
- 1 tablespoon white or brown rice flour
- 2 teaspoons quick cooking tapioca
- 1 ½ teaspoons sweet rice flour

Wheat-Free All Purpose Flour Mix Recipe #1

Mix the following flours together:

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

Use a little bit more flour than recipe calls for. Reduce oven temperature by about 25 degrees. Store extra flour mix in the refrigerator.

Wheat-Free All Purpose Flour Mix Recipe #2

Mix the following flours together:

- ½ cup millet
- ¼ cup potato starch
- ¼ cup oat flour

Commercially Available Wheat-Free Flour Mixture

Bob's Red Mill All Purpose Gluten Free Flour Mixture

http://www.bobsredmill.com/gf-all_purpose-baking-flour.html

More Wheat-Free Baking Tips:

- Baked goods such as bread, muffins, and desserts may be challenging at first. Don't expect the same results if you use wheat-free flour in place of regular flour.
- Wheat contains gluten that helps products rise and gives a chewy texture to baked goods. Wheat-free baked products may need xanthan gum and guar gum to help the product rise properly.
- If you're not a skilled baker, wheat-free mixes may be the best approach. Wheat-free mixes are available for bread, pizza crust, rolls, etc.
- If you'd like to experiment with wheat-free baked goods, start with muffins, pancakes, and cookies. They are more forgiving than other baked products.
- Wheat-free baked goods may be less nutritious than regular versions. The flour used to make wheat-free products is lower in iron, folic acid, other B vitamins, and fiber.
- Wheat-free recipes may rely more on refined flours like white rice flour. In time, you should learn how to bake with more nutritious, whole grain flours to improve nutrition. Try brown rice flour, amaranth flour, potato flour, or flour made from beans.
- Nut flours are nutrient rich. Many people enjoy baking with almond flour. Replace 1/3 of the wheat-free flour blend with almond flour. Try making your own almond flour by grinding whole, frozen almonds in a food processor.

Adapted from the Wheat Free and Gluten Free Website, the Wheat free Website and the Food Allergy News Cookbook.