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20 Alternative Flours You Should Know

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STORY AT-A-GLANCE

- If you have celiac disease, a gluten intolerance or have chosen to go gluten-free, you have many options to choose from when it comes to alternative flours
- The eight alternative flours I recommend are almond, amaranth, arrowroot, coconut, hemp, millet, sorghum and tapioca, you may also enjoy healthy "flours" produced from lesser-used gluten-free and grain-inclusive nuts
- While 10 of the alternative flours are thought to be good for you, based on the nutritive benefits they contain, I discourage their use due to the presence of lectins, a large binding protein that attaches to and interferes with digestion, causing weight gain and illness
- Some of the alternative flours you should avoid due to their lectin content are barley, buckwheat, chia, chickpea, lupin, oat, potato, quinoa, rice, rye, spelt and teff

If you are still being primarily with whole wheat flour because you believe it is better for your health, you may not have yet been informed otherwise that it is not. While some are still touting wheat as there are others that are best avoided altogether, such as corn flour and soy flour, which did not make the list as they are produced from genetically engineered crops.

Many of the 20 alternative flours highlighted below are gluten-free. If you have celiac disease, a gluten intolerance or have chosen to go gluten-free for other reasons, you are very likely familiar with some of these flours. "Flours" produced from lesser-used gluten and grain-inclusive nuts are also an intuitive trend in the presence of wheat, thereby holding bread and cakes together and giving them a sponge texture.

Gluten is a concern because it interferes with your ability to digest foods and absorb nutrients from food. Gluten interferes with the breakdown of proteins, thereby contributing to jump in your gut that can interfere with proper digestion.

Undigested gluten proteins cause your immune system to attack your cells, the fingertip projections lining your small intestine, resulting in side effects such as abdominal pain, diarrhea, constipation or nausea. Gluten consumption can also contribute to increased inflammation, nutrient malabsorption and deficiencies and other health problems.

Eight Healthy Alternative Flours

The eight flours shown directly below are, in my opinion, the healthiest of the 20 alternative flours addressed in this article. Both is gluten- and wheat-free. Two of my personal favorites are almond and coconut flour. Again, you will need to experiment a bit to figure out which types of flours work best with your recipes. When in doubt, start with smaller amounts of each type of flour and adjust from there.

Almond — Almond is produced by grinding and sifting blanched almonds into a fine powder. Almond flour is a great source of vitamin E, monounsaturated fats and protein, and low in carbs. Almond meal is made by grinding almonds with their skins intact, a process that produces a coarser consistency. Because almonds are a tree nut, almond flour is naturally gluten- and wheat-free.

Almond flour is sweeter than other flours, low in carbohydrates and packed with protein and fiber. It is a good source of copper, magnesium, manganese, phosphorus and vitamin E. While almond flour can be used as a 1:1 replacement for wheat flour, it will have the added benefit of making baked goods denser and flatter than usual.

Amaranth — Amaranth flour is a gluten-free, wheat-free flour produced by grinding the seeds of the amaranth plant into a fine powder. Not only does amaranth flour contain all nine essential amino acids, but it has a good balance of lysine and tryptophan, two essential amino acids that technically not a grain, amaranth flour is grain-free and is described as having an earthy, nutty taste.

Because it is a dense flour, you will achieve better results when blending amaranth with other flours. Start with 1/4 cup of amaranth and adjust from there. It does tend to be used in pancakes and quick breads and can also be used to thicken sauces, soups, stews and salad dressings.

Arrowroot — Derived from the root of the plant of the same name, arrowroot flour (also known as arrowroot starch, arrowroot powder, arrowroot powder) is a thickener.

It is far superior to cornstarch, which is often genetically engineered. It also can be used as a breading for fish and meats or blended with other gluten-free/wheat-free flours to make baked goods.

Arrowroot contains a good amount of B vitamins, iron and potassium, but no protein, which gives it superior thickening ability. It is also easier to extract than cassava flour, which is a gluten-free, starchy clear gel that can stand up to acidic conditions and freezing. Accordingly, it is often used in gluten-free baked goods and sauces, including cookies and cakes, pudding and pie fillings.

Coconut — Coconut flour consists of the dried meat of fresh coconuts after they've been pressed to make coconut milk and then ground into a fine powder. Coconut flour is a great replacement for conventional flour, it adds a mild coconut flavor while imparting a rich texture and natural sweetness.

Coconut flour is nutritious, in part, because it boasts the highest percentage (48 percent) of dietary fiber of any flour. It's also a good source of protein, while being very low in carbohydrates. It's also a good source of copper and manganese.

As a general rule of thumb, you can replace one-fifth of the flour in a recipe with coconut flour without compromising taste or texture (coconut flour is powerful). For a delicious breakfast treat, check out my recipe for **coconut flour almond meal pancakes**.

Hemp — Hemp flour (also known as hemp powder) is produced by milling and sifting hemp seeds after they are crushed to extract the oil. Hemp flour is gluten- and wheat-free, and has a mild, nutty flavor to baked goods. It is about 12 percent protein, making it a great source of amino acids, is high in fiber, iron, magnesium and zinc.

This dense flour does best when combined with other alternative flours for baking. Limiting hemp powder to 25 percent of your total blend will ensure lighter textured baked goods when baking bread. Due to its oily nature, hemp powder will go rancid unless it is refrigerated.

Millet — Millet is an ancient, drought-resistant grain — of which there are many types — grown widely in China, India and countries surrounding the Sahara Desert in western Africa. It's a gluten-free protein structure similar to wheat, but is gluten- and wheat-free. It boasts a sweet, buttery, cornmeal-like flavor.

Millet is a good source of B vitamins and offers a decent amount of copper, manganese, magnesium, phosphorus and zinc. That said, millet also contains goitrogens, dietary substances known to impair your thyroid and iodine metabolism.

In countries in which millet is consumed as a staple, the development of goiter is common.[1] As such, you'll want to limit your intake.

Sorghum — Sorghum flour, which is both gluten- and wheat-free, is ground from the grain of the same name. Sorghum is a tender grain that requires only about 4 milliliters per pound of water, often in Africa and India to make porridge and flat, unleavened breads. The Ethiopian flatbread called injera and a popular Indian flatbread are both made with sorghum.

Sorghum flour is a good source of antioxidants, B vitamins, fiber, iron phosphorus and protein. It also contains a large amount of phytic acid, which makes it a poor addition to flour blends. It does not work well in cup-for-cup substitutions with regular flour.

Tapioca (cassava) — Tapioca flour is derived from the root of the cassava plant, producing a fine white flour used in Brazilian cheese breads, pancakes, soups and stews. Tapioca adds cheesiness to gluten-free and wheat-free baked goods, and can be stored at room temperature for long periods of time.

Due to its starch base, blending tapioca with other flours is best when using it for baking. Start by using 25 percent tapioca flour in your gluten-free blend and adjust according to your preferences. When using sorghum flour for baking, you may want to increase your liquids slightly or add an extra egg to increase moisture. Because it is a starch or prebiotic, tapioca, as a digestible resistant starch, is one of the **recommended superfoods for diabetics**.

Two additional "flours" want to bring to your attention are those derived from **cauliflower** and **macadamia nuts**. Yes, you read that right — I recently made cauliflower flour (in the optical sp to make a bite flattened or pizza crust. You can rice cauliflower by placing pieces of raw, washed cauliflower in your food processor and pulsing until it is reduced to a fine powder, resembling flour.

If you like cauliflower, check out these delicious recipes for **nutritious golden cauliflower flatbread** and **cauliflower pizza crust**. By using cauliflower instead of grain-flours in these recipes, you reduce starchy carbohydrates with whole-food nutrition and cut calories, while satisfying your craving for bread.

Similar to almond flour, macadamia flour is produced by using food processor to transform whole, raw macadamia nuts into a fine powder. Macadamia flour has a sweet, nutty taste and is a healthy gluten-free, wheat-free alternative. Macadamia flour is lower in both carbohydrate and protein than most other flours. You can substitute macadamia flour into recipes calling for almond flour, including the coconut almond pancake recipe mentioned above.

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12 Flours to Avoid If You Want to Minimize Harmful Lectins

The 12 flours highlighted below are either gluten-free or healthy alternatives, when especially when it comes to gluten-free diets, whether it be celiac disease or simply a matter of personal preference. While some of these alternative flours are considered nutritious, they contain lectins, a substance that protein, vitamins and minerals they contain, their health benefits may be overshadowed by the presence of harmful plant lectins.

Lectins are sugar-binding plant proteins that attach to your cell membranes and can be a hidden source of weight gain and ill health, even if you are an alternative healthy diet. Many lectins are proinflammatory, neurotoxic, neurotoxic and cytotoxic.

Certain lectins may also increase blood viscosity, interfere with gene expression and disrupt endocrine function. Because the following flours are high in lectins, I recommend you can limit sparingly or avoid them entirely, especially if you have an autoimmune disease.

Barley — Barley flour is made from milled whole grain barley that's ground into fine powder. This wheat-free flour contains gluten and has a nutty taste. Barley flour is low in fat and high in fiber. Similar to oat flour (discussed later), it contains high amounts of soluble fiber composed of indigestible sugars called beta-glucans, which are known to lower your blood cholesterol.

For best results, use barley flour in a blend with other flours, and mind it to about 25 percent of the total weight. Barley flour is used in thicken or flavor sauces.

Buckwheat — Despite its name, buckwheat (also known as kasha when its toasted) flour is not a form of wheat, but actually a relative of rhubarb. Because it is ground from seeds, buckwheat flour is both gluten- and wheat-free. Due to its strong nutty taste, which can be overpowering and somewhat bitter, buckwheat flour should not stand alone in a recipe.

Buckwheat, which is a good source of dietary fiber and protein, is very high in lectins and can be used as a substitute for cornstarch in gluten-free bread recipes. Buckwheat is a low-glycemic endocrine function. Because the following flours are high in lectins, I recommend you can limit sparingly or avoid them entirely, especially if you have an autoimmune disease.

Chickpea — Also known as **garbanzo bean** flour, chickpea flour possesses a distinctive, slightly nutty taste that does not fade well on its own. When substituting it for conventional flours, use very small amounts in combination with other gluten- and wheat-free flours to avoid the distinctive taste may dominate. Chickpea flour is high in fiber, folate, manganese and protein.

Lupin — Lupin flour is derived from the "sweet lupin" legume that is the same family as peanuts, chickpeas and soybeans. It is a good source of fiber, protein, B vitamins, manganese and iron is 14. The main lupin seed contains about lupin flour has a possibility is may be life-threatening if you have a peanut or soybean allergy. Similar to other gluten-free grains, lupin does best when included in a blend.

Oat — Oat flour is made from ground oats, which can be concerning if you have celiac disease since oats are often contaminated with wheat. Even if you avoid wheat, you still need to contend with avenin, a protein in oat that is similar to gluten and therefore can trigger some effects in celiac sufferers.

Oat flour is often thought to be a healthy choice because it contains high amounts of soluble fiber comprised of indigestible sugars called beta-glucans, shown to lower your blood pressure. Oat flour is well suited for baking, but probably should not be used in large quantities when cooking. Oat flour goes rancid quickly, so store it in your refrigerator or freezer, or make small batches using a food processor.

Potato — Potato flour and potato starch, both of which are gluten- and wheat-free, are often confused. Potato flour processed a very strong potato flavor, as well as the heaviness of potato. For these reasons, a little goes a long way in a recipe. It also has a short shelf life, so it's best when you plan to use it.

Potato starch, on the other hand, has a light potato flavor and a consistency similar to cornstarch or tapioca. It has a longer shelf life, is a good thickener and has a taste virtually undetectable in recipes. If you are a diabetic or prediabetic, potato starch is one of the prebiotic resistant starches recommended for diabetics. Both the flour and the starch cannot stand alone in recipes, and will do better when blended with other gluten-free flours.

Quinoa — Quinoa flour is produced from milled quinoa seeds. This ancient grain with a nutty flavor is both gluten- and wheat-free. It is prized for its high protein content and the distinction that enable it to be a complete protein source. It is one of the few plant foods containing all nine essential amino acids.

As a whole grain or flour, quinoa is particularly rich in two flavonoids, kaempferol and quercetin, which have antioxidant properties. Quinoa flour tends to dry out baked goods when used in large amounts. For this reason, it is best to use small amounts of this flour in blends such as muffins and quick breads.

Rice — Both brown and white rice flour are gluten- and wheat-free. Brown rice flour is the heavier, grainer of the two. While it has a higher nutritional content than its white cousin, brown rice flour can be a bit gritty and heavier in texture. Because of its lighter consistency, white rice flour is one of the digestive-resistant starches recommended if you are a diabetic or prediabetic.

Brown rice flour has a slightly nutty flavor, whereas white rich flour is quite bland. Given that white rich flour is refined and therefore rich, it has a high glycemic index and is not a good choice for a high texture it imparts, making it ideal in recipes such as dumplings and pizza crust.

Keep in mind that rice contains inorganic arsenic, which can lead to cancer and heart disease. Because chlorine are long polymers of α-amylo-glucosamine, the primary binding target of wheat lectins, wheat lectin and chlorine binding lectin are functionally identical. Rice flour, which is gluten- and wheat-free, is a good choice for people with food sensitivities but compared to a diet focused solely on eliminating wheat, gluten and contaminating grains.

Rye — Rye flour is a dark flour that possesses a distinctive flavor. It is wheat-free and has a low gluten content. Bread made with rye flour tends to be denser than those made with wheat. When milled, rye flour retains the germ, endosperm and bran, making it more nutritious than refined wheat flour. Rye is a good source of B vitamins, iron, magnesium, phosphorus and zinc, as well as fiber and protein.

Spelt — Spelt flour results from the milling of an ancient grain of the same name. Spelt flour contains a low amount of gluten, but is not entirely gluten-free. It is a good source of B vitamins, manganese, magnesium, phosphorus and zinc, and rich in fiber and protein. Spelt flour tends to absorb more moisture than wheat flour, so you will want to reduce liquids by 25 percent when substituting it.

When using spelt flour to make bread, take care to knead it lightly otherwise it will become dense. Spelt flour produces a tender cake or cookie, but it can be sticky, with a slightly sweet and nutty flavor. Some varieties of crackers and pretzels are made with spelt flour.

Teff — Teff flour is made from milled teff, a tiny cereal grain originating from northern Africa. Teff flour is a primary grain in the sponge, slightly sour flatbread called injera that is eaten daily in countries such as Eritrea and Ethiopia.

It is both gluten- and wheat-free, with a mild, nutty flavor. Teff is an excellent source of amino acids and is high in calcium, iron and protein. Much of its fiber is a type known as resistant starch, which has been linked to health benefits such as improved blood sugar and weight management.

Final Thoughts About Alternative Flours

Using alternative flours will require patience and can be quite a challenge. If you are toting a gluten-free lifestyle — either due to celiac disease, gluten or wheat intolerance or simply as a matter of personal preference — you will need to do some experimenting to achieve your desired outcomes. Many of the recipes I provide are gluten-free baking come in blending several flours, adding gums and leavening agents.

The biggest adjustment, however, will be in your expectations for the finished product. No matter how many techniques and tricks you use, it is virtually impossible to replicate the elasticity of gluten in wheat flour, and the results will be different. Some times, however, you'll acquire a taste for even better treats made with one or more of the healthy alternative flours.

As you make a conscious effort to use whole-food ingredients, foods, or perhaps to avoid wheat altogether, making flours be it an inflammatory food, you'll be happier and healthier. I would say the same for the alternative flours combining lectins, or it's better to avoid them or moderate your use. If you are looking for new ideas for gluten-free cooking and baking, check out my **Healthy Gluten-Free Recipes**.

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