

# Gluten

Gluten is a protein found in wheat, one of the largest and most commonly consumed crops in the world. Wheat is found in many of our foods, including baked goods, pastas, and even unsuspecting foods like pre-made sauces, spice mixes and dressings. If these products contain wheat, they also contain gluten.

### WHY AVOID GLUTEN?

The gluten protein may have a number of undesirable effects on our body when we consume it, especially in the quantities that we consume today. Some research suggests that gluten can trigger inflammation in our intestines, which may cause "leaky gut". With leaky gut, the cells in our intestines begin to separate from each other slightly, loosening the junctions between cells. These loose junctions allow undigested food particles and other substances to enter directly into our bloodstream. These unrecognizable foods are seen as "foreign" by our immune system, and our bodies start to attack these foods. This causes more inflammation, and can lead to a whole host of other conditions linked to leaky gut syndrome, including autoimmune diseases.

Between 1-2% of the population has an autoimmune condition called Celiac Disease. When these individuals consume gluten, they have severe allergic reactions causing abdominal and digestive distress. Anyone with Celiac disease must avoid gluten entirely.

Some individuals may find that they are sensitive to gluten. They may experience headaches, bloating, nausea, brain fog, digestive discomfort, emotional imbalances, skin issues like acne, fatique and more. Although non-Celiac gluten sensitivity is not well understood, some people find that their symptoms improve after removing gluten from their diet.

## **GLUTEN-FREE FLOURS**

One of the most common places to find wheat or gluten is in baked goods, because wheat is the most popular flour. Here are some common gluten flours and gluten-free substitutes that you can reference when shopping for baked goods, like cookies, muffins and breads, as well as pasta and cereal:

#### Gluten:

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White, refined wheat •

#### Gluten-free: Rice

- Whole wheat Cake or pastry
- Wholemeal •
- Bulgar •
- Spelt •
- Kamut •
- Rve

- Tapioca •
- Buckwheat
- Coconut
- Chickpea
- Potato •
- Oat flour\* •
- Sorghum
- Almond meal •
- Amaranth •
- Ouinoa

Note that gluten-free flours are not always a 1:1 swap. Before baking with any of these flours, understand each of their properties and how to make a great gluten-free flour blend for your purpose.

## **GLUTEN-FREE SWAPS**

Looking for gluten-free swaps? Here are some great ideas to switch out your traditional gluten-filled foods.



Gluten-containing Foods	Non-gluten-containing foods
White pasta, whole wheat pasta	Rice pasta, quinoa pasta, zucchini noodles, spaghetti squash
Couscous	Quinoa, millet
Soy sauce	Tamari, coconut aminos
Wheat crackers	Rice, quinoa or seed crackers, kale chips
Breadcrumbs	Ground raw rolled oats*, crushed flaxseed, ground brown rice puffs, almond meal
Tortillas	Brown rice, corn, or coconut-based wraps, lettuce leaves
Pizza crust	Portabello mushrooms, brown-rice crust, cauliflower crust
Pretzels, chips	Corn chips, popcorn (plain), nuts
Granola bar, snack bar	Nut bar, gluten-free granola bars*

\*Note that while oats may be considered gluten-free, they contain a protein called avenin, which is similar to gluten, and can trigger gluten-sensitivity reactions in some with Celiac disease.

SOURCE: "Celiac Disease: Fast Facts." BeyondCeliac.org. N.p., n.d. Web. 17 Mar. 2017. <a href="https://www.beyondceliac.org/celiac-disease/facts-and-figures/">https://www.beyondceliac.org/celiac-disease/facts-and-figures/</a>.