

## Wheat Allergies

Wheat is one of the nine major allergens in the United States. Together, they cause about 90% of all food-related allergic reactions. A wheat allergy is an immune system reaction to one of the four proteins found in wheat: gluten, albumin, globulin, and gliadin. This fact sheet will discuss how to manage wheat allergies in a family child care.

# How are children affected by wheat allergies?

Wheat allergies are more common in children, especially babies and toddlers and may affect up to 1% of children in the United States. By age 16, most children with wheat allergies will outgrow them.

#### What foods contain wheat?

Children with wheat allergies cannot eat food that contain wheat in any form. Wheat can be an ingredient in prepared food products, but also can be found in products, such as decorative wreaths, makeup, bath products, and play dough. Read food and product labels to help avoid accidental exposure. The following charts list some products that generally contain wheat.

Common Varieties and Forms of Wheat				
• Bulgur	• Farina	• Kamut®		
• Couscous	• Farro	• Semolina		
• Durum	• Freekeh (wheat harvested	• Spelt		
• Einkorn	when young and green –	• Triticale (wheat and rye		
• Emmer	commonly found in Middle Eastern diets)	hybrid plant)		



Wheat Flours				
All-purpose	High-protein     Soft wheat			
• Enriched	• Instant	• Steel ground		
• Graham	• Pastry	• Stoneground		
• High-gluten	• Self-rising	Whole wheat		
Wheat Ingredients				
Hydrolyzed wheat protein	• Wheat germ oil	• Wheat protein isolate		
• Vital wheat gluten	Wheat gluten     Wheat sprouts			
• Wheat bran	• Wheatgrass	• Wheat starch		
• Wheat germ/meat	• Wheat malt	• Whole wheat berries		
Wheat Flour-Based Products				
• Bagels	• Cereals (some varieties)	• Muffins		
• Baked goods (brownies,	• Chips and pretzels	• Pancakes		
<ul> <li>cakes, cookies, cupcakes, pies)</li> <li>Baking mixes</li> <li>Bread and bread products</li> <li>Bread crumbs and batter</li> </ul>	• Club wheat	• Pasta and pasta products		
	• Crackers/cracker meal	• Pastries		
	• Donuts	• Rolls		
	• Flour tortillas	• Waffles		
	<ul> <li>Matzoh/matzo/matzah/ matza and matzoh meal</li> </ul>			





Dishes, Foods, and Products That May Contain Wheat				
• Beverages (root beer, powder-based drink mixes)	• Gravies and sauces thickened with flour or starch (roux)	<ul> <li>Seitan (vegetarian meat substitute)</li> <li>Soup, broths</li> </ul>		
<ul> <li>Breaded meat, poultry, and fish</li> <li>Candy/chocolate</li> <li>Condiments/sauces (barbeque sauces, glazes, ketchup, marinades, marinara, mustard, salad dressings, soy sauce, Worcestershire sauce, some vinegars)</li> <li>Glucose syrup</li> </ul>	<ul> <li>Ice cream</li> <li>Meat and poultry packaged with broth</li> <li>Natural flavorings</li> <li>Potato chips</li> <li>Processed meats (hot dogs, luncheon meats; meat, poultry, or fish with fillers)</li> <li>Pudding</li> </ul>	<ul> <li>Starch (gelatinized, modified, vegetable)*</li> <li>Stir-fried dishes</li> <li>Surimi (imitation crab or seafood)</li> <li>Turkey patties</li> <li>Vegan "chicken" products</li> <li>Vegan meat substitutes</li> <li>Vegetable gum</li> <li>Yogurt</li> </ul>		

\*Modified food starch may not be a safe ingredient for people with wheat allergies as it can be made using a variety of grain products, including wheat. If the product is made using wheat, then the term "wheat" must be clearly marked in the ingredient list. Contact the manufacturer if there are any questions regarding an ingredient.

Many items may not contain wheat but may be produced in a facility where wheat is processed or used as an ingredient. As a result, cross-contact with wheat may occur. Cross-contact is the accidental transfer of allergens to an allergen-free food or surface. Do not give a food to a child with a wheat allergy that is labeled with an advisory statement such as being produced or manufactured in a facility with wheat.

#### What substitutes can be used for wheat in meals?

Children on a wheat-restricted diet can eat a wide variety of foods, but the grain source must be something other than wheat. There are many grains and flours that can be substituted for wheat. Special recipes must be used when making substitutions for wheat flour because all grains do not have the same baking properties. When baking from scratch, a combination of wheat-free flours usually provides the best outcome. Some breads and flour mixes made with non-wheat flours are available on the commercial market. However, because bread can contain blends of different types of flour, read labels carefully to ensure that wheat flour is not an ingredient. In planning a wheat-free diet, look for some of these alternative grains.



Alternative Grains to Wheat				
<ul><li> Amaranth</li><li> Arrowroot</li></ul>	• Corn (cornmeal, corn starch, whole corn)	<ul><li> Potato (flour, starch)</li><li> Quinoa</li></ul>	<ul><li>Sorghum</li><li>Tapioca</li></ul>	
<ul><li>Barley</li><li>Buckwheat</li><li>Chickpea</li></ul>	• Millet • Oat	<ul><li>Rice</li><li>Rye</li></ul>		

The following chart lists common menu items that may be used as safe substitutions to items that contain wheat. Always carefully read the ingredient lists on food labels, even for foods that do not usually contain wheat.

Menu Items and Condiments That May Contain Wheat*	Possible Substitutes*†
Bread, bagels, biscuits, muffins, pancakes, waffles, other wheat flour-based products*	Bread products made with a non-wheat flour (almond flour, amaranth flour, buckwheat flour, chickpea flour, corn meal, oat flour, potato starch, rice flour, tapioca flour) <sup>‡</sup> , corn tortillas
Breaded products (chicken nuggets, fish sticks)	Non-breaded products (grilled chicken patties)
Breakfast cereals	Oatmeal, cream of rice, puffed rice, or other cereals made from corn, oats, or rice to which no wheat has been added
Crackers, pretzels	Corn chips
Meatloaf, meatballs	100% beef, pork, poultry, fish or shellfish; beans, peas, legumes
Mixed dishes containing soups, bread crumbs, or sauces thickened with flour or starch	Mixed dishes without wheat derivatives
Pasta	Rice, rice noodles <sup>‡</sup> , other non-wheat pasta <sup>‡</sup> , polenta <sup>‡</sup>
Processed meats	"All meat" hot dogs or luncheon meats prepared without wheat flour fillers or wheat derivatives
Salad dressings, soy sauce	Condiments without wheat derivatives
Vegetable or legume soups	Vegetable or legume soups without wheat derivatives
Yogurt, cottage cheese	Yogurt or cottage cheese without wheat derivatives; milk



\*All meals and snacks claimed for reimbursement must meet the Child and Adult Care Food Program (CACFP) meal pattern requirements. Please visit www.fns.usda.gov/cacfp/meals-and-snacks for more information. For children with food allergies, providers are required to provide meal modifications as stated in the child's medical statement signed by a State licensed healthcare professional. Meal modifications may require providing meals and snacks that do not meet CACFP meal pattern requirements. These meals are reimbursable as long as there is a medical statement on file documenting the necessary accommodations. Providers may choose to accommodate food-related disabilities without a signed medical statement if the meal modifications still meet the meal pattern requirements. Refer to the *Family Child Care Food Allergy Fact Sheets – Accommodating Children with Food Allergies* for more information.

<sup>†</sup>Always review the ingredient list to verify ingredients and check for possible cross-contact.

\*May not be creditable toward meeting the CACFP meal requirements.

#### How is celiac disease different from a wheat allergy?

Celiac disease is an inherited, or genetic, autoimmune disorder characterized by an intolerance to the protein gluten. The immune system of a person with celiac disease incorrectly perceives gluten as harmful and, as a result, damages tissues of the small intestine when the gluten protein is eaten. Many of the nutrients found in food are absorbed in the small intestine. When damaged, the small intestines may be unable to absorb these nutrients properly. The inability to absorb nutrients may cause a variety of uncomfortable gastrointestinal symptoms, such as diarrhea and abdominal pain. It can also cause illnesses such as bone disease and anemia. Symptoms of celiac disease are not generally life-threatening but can have long-term negative effects on health.

Gluten-free diets followed by individuals with celiac disease are not the same as wheat-free diets followed by individuals with wheat allergies. Gluten is found in wheat, barley, rye, and can sometimes cross-contact with oats. Those with celiac disease must avoid all sources of gluten.



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#### **For More Information**

Food Allergy Research & Education www.foodallergy.org

Institute of Child Nutrition www.theicn.org/foodsafety

National Digestive Diseases Information Clearinghouse *Celiac Disease* www.niddk.nih.gov/health-information/ digestive-diseases/celiac-disease U.S. Food and Drug Administration *Food Allergens* www.fda.gov/food/food-labeling-nutrition/foodallergies

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