Let's Talk About ...

Wheat Allergy

What is a wheat allergy?

A wheat allergy is an immune reaction to protein in wheat. Children with wheat allergies may also be sensitive to other cereal products. Most of us eat wheat in some form every day, which can make diet changes challenging. However, there are many other grains that can be used in place of wheat. Many children outgrow wheat allergies.

A wheat allergy reaction does not give the same symptoms in every person. Some common symptoms include:

Skin reactions:

- itchy red rash.
- hives, eczema, flushing, swelling of face.

Digestive system reactions:

- belly pain
- blood or mucous in stools, severe diarrhea, vomiting, or severe nausea or cramping, itching or swelling of the lips, mouth, tongue or throat.

Respiratory system (lungs) reactions:

• runny nose, sneezing, wheezing, asthma, throat tightening, or difficulty breathing.

Cardiovascular system (heart) reactions:

• rapid heartbeat, low blood pressure, passing out.

Are celiac disease and wheat allergy the same thing?

Celiac disease is not the same as wheat allergy. Wheat allergy is an immediate immune system reaction to wheat protein. Celiac disease is an autoimmune digestive disease. People with celiac disease cannot eat gluten, one of the proteins found in wheat, barley and rye. When someone with celiac disease eats gluten, it damages their small intestine. The damage then interferes with absorption of nutrients from food.

If you think your child's body is reacting poorly to wheat and you suspect a problem with gluten, it is best not to self-diagnose. Check with the doctor and make certain your child does not have a wheat allergy, celiac disease, or some other condition. Do this before starting a modified diet for your child.

What do I do for my child with wheat allergy?

To treat a wheat allergy, avoid eating wheat or any food that has wheat in it. You and your child will need to read labels on food for wheat products.

What do I look for when I read the food labels?

- 1 Labels on food that are regulated by the FDA have to say if the food contains the 8 most common food allergens: milk, egg, soy, wheat, peanuts, tree nuts, shellfish, or fish. Always read the ingredient list to be sure and check all food labels carefully. Manufacturers may change ingredients without warning.
- **2** Allergen Advisory Statement "May contain [allergen]" or "Produced in a facility that also produces products containing [allergen]."
- **3** Avoid any food product that contains an Advisory Statement for your child's food allergies.

Below is an example of a food label:

Ingredients

Whole Oats, Brown Rice Syrup, Rice Crisps (Milled Rice, Sugar, Salt, Barley Malt), Diced Apples, Evaporated Cane Juice Syrup, Raisins, Roasted Soy Beans, Almond Butter, Honey, Pear and Grape Juice Concentrate, Brown Rice Flour, Soy Protein Isolate, Glycerin, Natural Flavors, Cinnamon, Nonfat Milk

Contains milk, nut and soy ingredients. Made on equipment that also processed peanuts and wheat.

What are some names for wheat on food labels?

The tables below have names for wheat and other foods that may contain wheat.

Different types of wheat on a label		
All purpose flour	Farina	Kamut
Bran	Filler	Modified food starch
Bread crumbs	Flour	Pasta flour
Bulgur	Germ	Semolina
Cake flour	Gluten	Spelt
Cereal binding	Gluten flour	Triticale
Cereal extract	Graham flour	Vegetable gums
Couscous	Gum base	Vegetable starch
Cracked wheat	Hydrolyzed plant protein	Wheat
Durum flour	Hydrolyzed vegetable protein	Wheat flour
Edible starch	Hydrolyzed wheat protein	Wheat germ
Einkorn	Icing mixture	Whole wheat

Other foods that may contain wheat		
Artificial flavoring	Maltodextrin	Shoyu
Caramel color	Modified food starch	Surimi
Dextrin	Modified starch	Tamari
Food starch*	Monosodium glutamate, MSG	Teriyaki sauce
Gelatinized starch	Natural flavoring	Textured vegetable protein
Glucose syrup	Oats**	Vegetable gum
(HVP) Hydrolyzed vegetable protein	Soy sauce	Vegetable starch
Glucose syrup (HVP) Hydrolyzed	Oats**	protein Vegetable gum

If the product is an FDA regulated food, the word "Wheat" must appear on the label.

*Unless otherwise stated on the food label, the single word "starch" in an ingredient list means corn starch. Starches from other sources should be designated by some non-misleading term that indicates the source of such starch, for example, "wheat starch." **Wheat-free and gluten-free oats can be found from special suppliers.

Will my child get enough nutrients by avoiding wheat?

Wheat is a good source of B-vitamins and protein. Much of our wheat is also fortified with iron and folic acid, thus by avoiding wheat, your child may not eat enough of those nutrients. Substitutions for other fortified and whole grains, meats, dark leafy greens, and legumes can provide those nutrients.

Nutrient's Lost When	Suggested Alternate
Avoiding Wheat	Sources (if not allergic)
B Vitamins, Iron, Folic Acid, Protein	Protein foods: meats, fish, poultry, legumes, eggs, dairy (if safe for your child); fruit, vegetables, leafy greens, fortified alternate grain products (rice, corn, oats, barley, buckwheat)

What type of foods can my child eat?

The first table lists some general foods that are okay to eat. The next table lists wheat-containing foods that should be avoided. Always read the food

Wheat-free foods (Okay to eat)	Wheat-containing foods (Don't eat)	
Beverages and Formula		
CoffeeFruit JiuceMilkMost carbonated drinksTea	Beer, gin, and some whiskeysPostum	
Breads, Cerea	als, and Pasta	
 Bread and rolls made with rice, potato, corn, or other non-wheat flour Cold cereals made from rice or corn; make sure wheat starch is not in the ingredient list Crackers such as corn cakes, corn tortillas, rice cakes, and crackers Hot cereals such as cornmeal, or rice cereal Pasta made with corn, rice, quinoa, or other non-wheat flour Popcorn Rice noodles 	 All cold cereals made from wheat grains All hot wheat cereals All wheat crackers All wheat pasta and noodles Commercial breads and rolls made with wheat flour Flour tortillas Teriyaki rice cakes 	
Condi		
Ketchup	Soy sauce	

- Mustard
- Pickles
- Steak Sauce

Dairy Products

- Cheese
- · Cottage cheese
- Cream
- Custards
- Milk
- Pudding
- Yogurt

• All dairy products thickened with wheat flour or wheat starch

Wheat-free foods (Okay to eat)

Wheat-containing foods (Don't eat)

Desserts

- Custards and pudding without wheat flour or starches
- · Frozen yogurts, sherbets, and ice cream without wheat starches or wheat flours
- Fruit and flavored ices
- gelatin
- Hard candy, chocolate, gummy candy, cinnamon bears, tootsie rolls, snickers, rolls, and gum without wheat thickeners
- Wheat-free cakes and cookies
- · Homemade treats without wheat thickeners
- Jice bars and Popsicle®

- All candy or other desserts with wheat flours or wheat starches
- Commercial cakes, cookies, donuts, pies and pie filling, or mixes with wheat flours
- Custard's and pudding with wheat flour or starch
- Licorice (modified food starch [MFS])
- · Most packaged frostings (MFS)
- Peanut M&Ms®

Note: In the US most modified food starch is made from corn; however, check with the manufacturer to verify it does not contain

Eggs, Meat, Fish, and Poultry

- · All plain eggs, beef, chicken, fish, ham, lamb, pork, turkey, or veal without breading
- Luncheon meats or cold cuts that are 100% meat without fillers
- All breaded meats and wheat flour or wheat starches
- All meats with wheat flour or wheat starch thickeners

Fats

- Bacon
- Butter, coconut butter, or nut butters withoutwheat thickeners
- Mayonnaise (check labelsome brands contain wheat)
- Oils and shortening
- · Pure chocolate
- Salad dressings that are wheat-free
- Whipped topping

- Packaged gravies, dips, and sauces with wheat thickeners
- Salad dressings thickened with wheat flour or starches

Fruits

- All baby food fruits without wheat flour or starch
- · All fresh fruits and juices
- Canned and frozen fruits without wheat flour or starch
- All fruits, canned or frozen, with breading or thickened with wheat flour or wheat starch

- Clear soups and consommés without wheat flour or
- Commercial or homemade soup with vegetables and rice without wheat flour or starch

Soups

Wheat-free foods (Okay to eat)

Wheat-containing foods (Don't eat)

Vegetables

- · All fresh, canned or frozen vegetables without wheat flour or starch
- All vegetables canned or frozen, with breading or thickened with wheat flour or wheat starch

Miscellaneous

- Coconut
- · Jams and jellies
- Pure seasonings and herbs
- Vanilla powder
- Momosodium glutimate (MSG)
- Pure vanilla

How do I substitute wheat in cooking and recipes?

When baking with wheat-free flours, a combination of flours usually works best. Experiment with different blends to find one that will give you the texture you are trying to achieve. One of the down sides of wheat-free baking is that the recipes don't rise as much. Wheat-free flours often work best if the recipe is cooked for a longer period of time at a lower temperature than usual. Reduce your oven temperature by about 25 degrees, and you will find the finished product will be a little less flat. If you are not avoiding eggs, adding an extra egg to a glutenfree recipe will help the product rise a little more. If you are looking for a protein boost for your recipe, use equal portions of brown rice flour and chickpea flour to make a complete protein. Refrigerating dough for half an hour before baking may help improve the texture and flavor. Since many wheatfree foods will crumble, you may want to experiment with making foods with smaller surface areas, such as cupcakes instead of cakes.

There are many new commercial flour blends available. Check the label for allergen information. Here is an example of one to make at home:

Rice Flour Blend

- 3 cups brown rice flour
- 1 ¼ cups potato starch or cornstarch
- 3/4 cup tapioca flour

For 1 cup of wheat flour substitute:

Amount	Flour
3/4 cup	Garbanzo (chickpea) flour
1 cup	Millet flour
1 cup	Montina (Indian rice grass)
1/2 cup	Nuts (finely-ground)
3/4 cup	Potato starch
1 cup	Quinoa flour
7/8 cup	Rice flour (brown/white)
1 cup	Sorghum flour
1/2 cup + 1/2 cup potato starch	Soy flour
7/8 cup	Sweet rice flour
1 cup	Tapioca flour
7/8 cup	Teff flour

What about foods outside of the home?

School/Daycare—Do the following:

- Ask your child's school/daycare about their allergy action plan
- Tell the school/daycare about your child's allergies
- Give the school written allergy information
- Provide the school with emergency contact information
- Give them a photo of your child

Everywhere—Teach your child the following:

- Which foods are safe and unsafe
- Not to trade food with others
- Not to eat any food with unknown ingredients
- What their allergic symptoms are
- How and when to tell an adult about an allergyrelated problems
- How to read food labels

Eating out can be a challenge with a wheat allergy. Many foods have wheat products added as fillers or thickeners, or as a main ingredient.

Here are some tips to remember when eating out:

- Inquire about all menu items and food preparation before ordering.
- Be aware of cross-contamination. For example: French fries cooked in the same oil used to fry onion rings, chicken nuggets, or other breaded items will contain wheat proteins.
- Ask if meat is cooked on a grill that is also used for breaded items,
 - If it is, ask if it can be cooked on a piece of aluminum foil or in a clean pan.
- Choose menu items that do not contain breading or sauces.
- Print a Chef's card to bring into the restaurant or call ahead.

Learn more

You can find more information about Wheat Allergy on the internet—but make sure you visit reliable websites. Not all information on the internet is trustworthy. Some good websites include:

- Food Allergy Research and Education www.foodallergy.org
- Kids with Food Allergies www.kidswithfoodallergies.org
- Utah Food Allergy Network www.utahfoodallergy.org
- American Academy of Allergy, Asthma, and Immunology www.aaaai.org
- Academy of Nutrition and Dietetics www.eatright.org
- Eating out information from Safe Fare www.safefare.org

For additional information and questions please contact the Outpatient Dietitians at Primary Children's Hospital at 801.662.1601.

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