



CHILD AND ADULT CARE FOOD PROGRAM NUTRITION EDUCATION HOME ASSIGNMENT

FOOD ALLERGIES

WHAT ARE FOOD ALLERGIES?

A food allergy is an abnormal response of the immune system to otherwise harmless foods such as peanuts, nuts, milk, eggs, soy, fish, shellfish, and wheat.

WHAT ARE THE SYMPTOMS OF AN ALLERGIC REACTION?

Symptoms can include hives, vomiting, diarrhea, and respiratory distress. In some cases, just one bite of food can bring on anaphylaxis, a severe reaction that involves various areas of the body simultaneously. In extreme cases, it can cause death.

HOW CAN FOOD ALLERGIES BE MANAGED?

The only way to manage food allergies is to strictly avoid the foods to which you are allergic. One should learn how to read and interpret ingredients on food labels and how to spot high-risk foods.

GENERAL INFORMATION

1. A food allergy is the immune system's reaction to a certain food in which the body creates antibodies to that food. When these antibodies react with the food, histamine and other chemicals are released from various cells within the body. These chemicals cause hives, asthma, or other symptoms of an allergic reaction.
2. Eight foods cause 90% of all food allergic reactions. They are milk, egg, wheat, peanut, soy, tree nuts, fish, and shellfish.
3. There is no cure for food allergies. Strict avoidance (by reading ingredient listings) is the only way to prevent a reaction.
4. Children with asthma and food allergies are at increased risk for a severe reaction.
5. Symptoms can include vomiting, diarrhea, cramps, hives, swelling, eczema, itching or swelling of the lips, tongue, or mouth, itching or tightness of the throat, difficulty breathing, or wheezing.
6. Allergic reactions can begin within minutes to 1 hour after ingesting the food.

FOOD ALLERGY MYTHS

MYTH: A recent study showed that up to 25 percent of adults believe they have food allergies. Scientific studies show, however, that only 1 to 2 percent of adults truly have a food allergy.

MYTH: Food allergies are not real. Not true. An allergic reaction involves the body's immune system. In the case of food allergy, the immune system misinterprets a food as a harmful invader and releases histamine and other chemicals to protect the body from harm. Symptoms include hives, vomiting, diarrhea, and respiratory distress.

MYTH: Food allergies should not be taken seriously. Every year more people die of food allergic reactions than allergic reactions caused by insect stings. Food allergies must be taken seriously.

MYTH: Food additives and artificial flavors cause the majority of food allergic reactions. Contrary to common belief, natural foods account for the majority of allergic reactions. The food that most commonly cause reactions are: peanuts, milk, eggs, wheat, soy, tree nuts (almonds, walnuts, pecans, etc.), fish, and shellfish. These foods may appear in foods as ingredients or under natural flavors.

7. Milk is the most common of food allergies in children. Other foods most commonly cited are eggs, wheat, peanut, soy, and tree nuts.

HOW MUCH EXPOSURE DOES IT TAKE?

- As little as half a peanut can cause a fatal reaction for severely allergic individuals.
- Some severely milk-allergic children can have a reaction if milk is splashed on their skin.
- Being kissed by someone who has eaten peanuts, for example, can cause a reaction in severely allergic individuals.

8. Peanuts, nuts, fish, and shellfish commonly cause the most severe reactions.

9. Up to 5 percent of children have food allergies.

10. Most children outgrow their allergy, although an allergy to peanuts and tree nuts is considered lifelong.

ANAPHYLAXIS FACTS

- Anaphylaxis is a sudden severe potentially life-threatening allergic reaction. It can be caused by food allergy, insect stings, or medications.
- Although any food can potentially cause anaphylaxis, peanuts, nuts, shellfish, fish, and eggs

are foods that most commonly cause this reaction.

- As little as 1/5 of a teaspoon of the offending food has caused death.
- Symptoms can include hives, swelling (especially of the lips and face), difficulty breathing (either because of swelling in the throat or an asthmatic reaction), vomiting, diarrhea, cramping, and a fall in blood pressure. They can occur in as little as 5 to 15 minutes.

If the doctor believes there is a risk that a child may have an anaphylactic reaction to a food, he will prescribe epinephrine for emergency use. This drug, which comes preloaded in an auto-injector (like a bee-sting kit), delays a fatal reaction long enough to get the child to the nearest hospital for proper medical treatment. For milder reactions, antihistamines can be used to treat a runny or stuffy nose, and anti-itch creams provide relief for skin rashes and hives.

Check with your licensor or certifier and have an approved emergency health care plan in place to follow. Dietary restrictions will keep most children safe. Having a child with a food allergy is an adjustment, but by staying informed and alert to possible problems, you can minimize reactions and feel safer about enjoying mealtimes.

COMMONLY ASKED QUESTIONS

What is the difference between food allergy and food intolerance?

Many people think the terms food allergy and food intolerance mean the same thing; however, they do not. A food intolerance is an adverse food-induced reaction that does not involve the immune system. Lactose intolerance is one example of food intolerance. A person with lactose intolerance lacks an enzyme that is needed to digest milk sugar. When the person eats milk products, symptoms such as gas, bloating, and abdominal pain may occur.

A food allergy occurs when the immune system reacts to a certain food. The most common form of an immune system reaction occurs when the body creates immunoglobulin E (IgE) antibodies to the food. When these IgE antibodies react with the food, histamine and other chemicals cause hives, asthma, or other symptoms of an allergic reaction.

Are there allergy injections for a food allergy?

Currently, no allergy injection treatment is approved by the Food and Drug Administration (FDA), the federal agency that regulates allergy extracts sold for diagnosis and treatment, or the American Academy of Allergy, Asthma, & Immunology, of the American College of Allergy, Asthma & Immunology (two professional societies for allergists) for the treatment of a food allergy. Some research is being conducted in this area, however.

Is there any medication that can be taken to prevent food allergies?

At this time, no medication available can prevent food allergies. Strict avoidance of the allergy-causing food is the only way to prevent a reaction. However, medications (epinephrine, antihistamines) can be given to control symptoms after a reaction occurs. Information about food allergies and food intolerances should be provided by the child's parents and supported by a physician statement.

SUBSTITUTIONS

Milk and dairy products are excellent sources of protein and calcium in a child's diet, as well as riboflavin, pantothenic acid, phosphorus, and vitamin D. The protein, riboflavin, pantothenic acid and phosphorus are easy to replace if the child eats eggs, meat, chicken, or fish, legumes, nuts, seeds, and whole grains. Vitamin D can come from direct sunlight (15 minutes a day without sun screen) or from vitamin supplements. Calcium is found in fish with bones (chop for safe eating) such as salmon or sardines; shrimp; spinach; greens such as turnip, beet, and collard greens; broccoli; bok choy cabbage; and soy beans.

WHEAT SUBSTITUTIONS

Instead of...	Try...
Wheat flour	Rice Flour, Buckwheat Flour, Potato Starch, Rye Flour, Oat Flour, Barley Flour
Bread crumbs (for meatballs)	Oatmeal or Rice
Flour tortillas	Corn Tortillas
Pasta in Italian food	Polenta or Risotto
Cereals	Oatmeal Rice or rice noodles in Asian food Lentil flour in Indian food

FAN (Food Allergy Network) recommends these substitutions for 1 cup of wheat flour in baking:
1-1/3 cups rice flour
1 cup barley flour
¾ cup amaranth flour
plus ¼ cup either arrowroot, tapioca or potato starch.

For egg allergies, bake your own egg-free cakes and cookies.

FOODS OR INGREDIENTS TO AVOID IN CASE OF FOOD ALLERGIES

If a child is diagnosed with food allergies, read labels carefully and avoid the following foods:



MILK

Avoid milk, cow's milk-based formula, ice cream, pudding, yogurt, cheese, butter, custard, sour cream, and foods with whey, casein, and lactalbumin in their ingredients.

EGGS



Avoid eggs, egg substitutes, eggnog, mayonnaise, meringue, custard, baked goods, French toast, pancakes, and avoid foods with ovomucin and albumen in their ingredients. Assume all bakery goods contain eggs. Avoid convenience foods and fast foods. All of the following may contain egg: canned goods, such as soups and pasta products; most packaged mixes for cakes, cookies, muffins and pancakes; commercially prepared hot dogs and hamburgers; fried cheese sticks, chicken nuggets and French fries; and pizza dough. Many ice creams, sherbets, sorbets and other frozen desserts are made with eggs, as are many popular candies made with eggs, particularly egg whites. Any meat that has been mixed with bread (such as meatloaf) or breaded (such as fried chicken) probably contains eggs. Meats such as hot dogs, bologna, or sausages may include egg protein. Many pastas, not just egg noodles, contain egg. Simplesse (fat substitute) contains egg protein.



SOY

Avoid soy-based formula, soy sauce, soy burgers, soy flour, tofu, hydrolyzed soy protein, miso, shoyu sauce, soy, soy protein, soybean, tamari, tempeh, textured vegetable protein or TVP. Soybeans and soy products show up in national brand foods such as cereals, candy, crackers, margarine, cookies, hot cocoa mixes, canned soups, sauces, stews, tuna, bread and pasta.

WHEAT



Often found in baked goods and baked good mixes, including cakes, pies, cookies, crackers, muffins, and bread. Avoid crackers, cereal, white and wheat bread, bran muffins, pizza, pancakes, bread crumbs, bulgur, malt or cereal extract, couscous, durum or durum flour, enriched flour, farina, gluten, graham flour, high protein flour, seitan, semolina, spelt. Wheat is present where least expected: soy sauce, canned soups, puddings, candies, packaged shredded cheese, French fries coated in wheat starch, and sauces and gravies thickened with flour. Check cereal box labels carefully as some oat, corn or rice cereals contain wheat or wheat starch.

PEANUTS



Avoid peanut butter, candy bars containing peanuts, trail mix, foods fried in peanut oil, baked goods and foods made with peanuts as filler, ground nuts, mixed nuts, vegetable oil if the vegetable is not specified (may be peanut oil), beer nuts, natural flavoring (may contain peanut protein), hydrolyzed vegetable protein (may contain peanut protein), hydrolyzed plant protein, peanut flour, peanut starch. Peanuts are ground to thicken soups, stews, veggie burgers, casseroles, tossed into stir-frys and salads, and chopped to add texture to bread and baked goods. Peanut oil is in jelly beans, pizza, tomato sauce, vegetable soup, manicotti, and in restaurant butter. 35% of peanut allergic children are also allergic to tree nuts, so avoid tree nuts if unsure.

TREE NUTS



Avoid any food that has the name of a nut or the word nut anywhere on the label. Avoid walnuts, almonds, pecans, cashews, chestnuts, Brazil nuts, macadamia nuts, pistachios, almond extract, baked goods with nuts, marzipan (almond paste), nut meal, nougat, nut paste, pinon, pignoli (pine nuts), gianduja (chopped nuts mixed with chocolate), Nu-nuts (artificial nuts). Tree nuts are often found in cereals, muffins, cookies, breads, ice cream treats, candies, waffles, snack foods, and crackers. Nut oils are commonly used in cooking sauces and filling. Simpler foods are safer – plain grilled chicken and baked potatoes.

SEEDS



Sesame, poppy and sunflower seeds are the chief offenders in this category. Avoid mustard (mustard is a seed). Be wary of mayonnaise, prepared sandwiches and salads, marinades, salad dressings, grilled dishes, ground meat dishes such as meatballs and meat loaf, soups, stews, and gravies. Sometimes the seed oils should be avoided as well. As with nuts, seeds are commonly hidden in baked goods, toppings, fillings and sauces. Cross-contamination is also a problem. Bagels packaged together, cookies piled at the bakery, and Chinese restaurants often use sesame seeds and oils. Seeds are so small it's hard to notice if contamination has occurred.

FISH



Avoid all fish such as tuna, catfish, perch, swordfish, halibut, salmon, calamari, fish stock



SHELLFISH

Avoid shrimp, clams, lobster, crab, scallops, mussels, prawns.

Note: There may be other ingredients that cause allergic reactions in these categories. It is best to check with a doctor or allergist for a full list of a specific child's allergic food ingredients.

PEANUT ALLERGIES are problematic because they're so severe, and also because peanut proteins are found in so many foods. Completely eliminating peanuts from a diet involves 3 steps:

1. Whenever possible stick to whole, unprocessed or minimally processed foods (fruits, vegetables, meats, eggs, milk, cheese, pasta, rice and simple grain cereal). This makes good sense for all of us, but for peanut allergic children it's particularly important. Single ingredient foods are preferable because prepared foods (anything that is made with more than one ingredient) may have been made in a factory where foods containing allergens may have been used on the same manufacturing lines as safe foods.
2. Get REAL – Read Every and All Labels. No matter what the food, no matter how many times you've served it to a child, read the ingredients label. Ingredients may change at any time and may differ from region to region. Thirty seconds spent reading the label may very well save a life.
3. Whenever possible, bake it yourself. There are many national brands of breads and cookies you'll find safe to feed your child. However, stay away from bakeries. The possibilities for cross-contamination are just too high.

EQUIPMENT SAFETY

- Wash equipment thoroughly with soap and hot water before using it again on other foods, or use separate pots, pans, and utensils to prevent cross-contamination. Cross contamination could occur in these and many other settings:
 - When food is chopped on a cutting board on which allergens have previously been cut;
 - When baked goods are baked on a cookie sheet that hasn't been thoroughly washed after baking cookies or other foods containing allergens;
 - When foods are cooked on a grill on which foods marinated with allergens are also grilled;
 - When spoons on a salad bar are used to serve both allergenic foods and safe foods;
 - When knives are used to cut allergenic foods and safe foods without washing in between.

RESOURCES:

The Food Allergy Network, <http://www.foodallergy.org>, What's In A Meal?, USDA, Healthy Kids magazine: Parenting Advice from the American Academy of Pediatrics.

American Academy of Allergy, Asthma and Immunology. (800) 822-ASMA www.aaaai.org. Has a membership directory to help you find an allergy specialist in your area.

American Academy of Pediatrics. For a copy of "Guide to Your Child's Allergies and Asthma", go to www.aap.org

American Dietetic Association (800) 877-1600 www.eatright.org Offers recipes and information on food content, plus referrals to registered dietitians who can help you create an allergen-free diet.

Asthma & Allergy Foundation of America (800) 7-ASTHMA www.aafa.org Provides helpful literature and referrals to local chapters.

Food Allergy Network (800) 929-4040 www.foodallergy.org Offers videos, newsletters, special cookbooks, and other information to help raise awareness of food allergies and deal with food allergies for parents as well as caregivers. It offers books and videos for adults as well as children, such as the series for children "Alexander Goes Trick-or-Treating" and "Alexander Goes to a Birthday Party" where children learn how the main characters enjoy parties and holidays in spite of their food allergies. Videos include "Alexander, the Elephant Who Couldn't Eat Peanuts".

Living Without magazine



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FOOD ALLERGIES: CONTINUING EDUCATION QUESTIONS

PROVIDER NAME	
PROVIDER NUMBER	
DATE COMPLETED	

Complete all questions and submit to the 4-C CACFP Office. This home assignment counts for 2 continuing education hours. For the written responses, feel free to write on the back of the page.

What are the symptoms of an allergic reaction?

- a. Wheezing and difficulty breathing
- b. Itchy skin rashes including hives
- c. Nausea, vomiting, diarrhea, and abdominal pain
- d. Swelling around mouth and throat
- e. All of the above.

True/False Questions:

The best way to manage food allergies is to strictly avoid the foods the child is allergic to.	TRUE	FALSE
Allergic reactions develop fairly, within minutes to one hour after the child eats the food he is allergic to.	TRUE	FALSE
Most children outgrow their allergy, although an allergy to peanuts and tree nuts is considered lifelong.	TRUE	FALSE
Cooking a food makes it less allergenic (less likely to cause an allergic reaction).	TRUE	FALSE
If you're allergic to a food it's okay to sometimes eat small amounts if that doesn't trigger an allergic reaction.	TRUE	FALSE
Peanuts are the most common food allergy in children.	TRUE	FALSE
Food allergies aren't real.	TRUE	FALSE
Food allergies aren't serious.	TRUE	FALSE
It's easy to avoid foods a child is allergic to.	TRUE	FALSE

4C

List foods or ingredients that must be avoided for milk, egg, wheat, peanuts, soy, tree nuts, fish, and shellfish allergies.

List five methods of cross contamination.

1. _____
2. _____
3. _____
4. _____
5. _____

List other foods that are good sources of calcium for a child with a milk allergy.
