

FOOD ALLERGY FACT SHEET

Fish Allergies

Which fish are most likely to cause allergic reactions?

Salmon, tuna, and halibut are the fish most likely to cause allergic reactions, but it is recommended that individuals with any fish allergies avoid all fish. The term *fish* encompasses all species of finned fish, which can cause severe allergic reactions. The protein from the fish flesh is most likely to cause an allergic reaction, but fish gelatin and fish oil (which is often less refined and may contain traces of fish protein) should be avoided as they may also cause a reaction. Shellfish, although highly allergenic as well, is not in the same family as finned fish, so a person who has a fish allergy may be able to tolerate shellfish.

What are the symptoms?

Fish allergy symptoms can include:

- Hives (urticaria)
- Eczema (atopic dermatitis)
- Swelling (angioedema)
- Itching
- Upset stomach
- Vomiting
- Cramps
- Nasal congestion
- Shortness of breath
- Wheezing

A severe reaction to fish can lead to anaphylaxis. Signs of anaphylaxis include constriction of airways making breathing difficult, rapid pulse, drop in blood pressure, and dizziness or loss of consciousness. Fish allergies are more common in adults than children and are considered to be life-long.

What foods contain fish?

Individuals with a fish allergy usually need to avoid all finned fish. Asian food is often flavored with

fish sauce, so a person with fish allergies should use extreme caution when eating Asian foods or should completely avoid these foods. Seafood restaurants should also be avoided because the possibility of cross-contact is very high. It is important that child nutrition staff read all food labels to check for fish or fish ingredients. Below is a list of products that contain fish and should be avoided.

- All finned fish (for example, anchovies, bass, catfish, cod, flounder, grouper, haddock, hake, herring, mahi mahi, perch, pike, pollock, salmon, scrod, sole, snapper, swordfish, tilapia, trout, and tuna)
- Breaded fish sticks and fish fillets
- Bouillabaisse
- Caesar salad and Caesar dressing
- Fish gelatin
- Fish oil
- Fish sauces (for example, Thai fish sauce or Nampla)
- Fumet (fish sauces)
- Imitation fish or shellfish
- Surimi
- Sushi
- Worcestershire sauce



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How is fish located on food labels?

Food labels regulated by the U.S. Food and Drug Administration (FDA) follow the regulations of the Food Allergen Labeling and Consumer Protection Act (FALCPA) by listing the top eight allergens on the label in plain language either in the ingredient list or in a “contains” statement. FALCPA also requires the type of fish (for example, bass, flounder, cod) to be declared. This means that although “fish” is one of the eight major allergens, the label may not say “fish”, but will state the name of the specific type of fish.

For example, fish sauce that contains anchovies (a type of fish) could be labeled in either of the ways shown in the examples below (bold is used for illustrative purposes only):

Label 1	Label 2
INGREDIENTS: Anchovy extract, Salt, Pure cane sugar	INGREDIENTS: Anchovy extract , Salt, Pure cane sugar
Contains: Anchovy	

Labels also should be checked for warnings such as “may contain fish,” “produced on shared equipment with fish,” or “produced in a plant that uses fish in other products.” These foods should be avoided as the product may contain a small amount of fish due to cross-contact.

U.S. Department of Agriculture (USDA)-regulated foods, namely meat, poultry, and egg products are not required to follow FALCPA labeling regulations but may do so voluntarily. Only common or usual names of the ingredients are required to be identified on these labels.

All child nutrition staff should be trained to read food labels and recognize food allergens. Because food labels change from time to time, school nutrition staff should check labels for fish and fish ingredients for every product each time it is purchased. If the label does not provide clear information, then the manufacturer must be contacted for clarification or a different product should be used. Labels should be maintained for a minimum of 24 hours for every product served to a child with food allergies in case of a reaction.

What substitutes can be used for fish in student meals?

When menu substitutions or accommodations for a student with life threatening food allergies are requested, a medical statement from a physician is required. Refer to the manual *Accommodating Children with Special Dietary Needs in the School Nutrition Programs: Guidance for School Foodservice Staff* on the USDA web site (www.fns.usda.gov/cnd/Guidance/special_dietary_needs.pdf) for information on the required content of the physician’s medical statement. Read and follow the statement exactly. If there is uncertainty about the statement or if it does not provide enough information, contact the household or physician (as permitted by the family) for clarification. Always follow your school’s policies and procedures.

When planning menus for children with fish allergies, consider current food choices offered to determine if a reimbursable meal can be selected from foods offered that do not contain fish. This approach will minimize the need to prepare special recipes or to make menu substitutions.



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The chart below lists common menu items that may be used as safe alternatives to items that contain fish. School nutrition staff should always carefully read labels, even for foods that generally do not contain fish.

Common Menu Items/Ingredients That May Contain Fish	Possible Substitutes or Alternatives That Do Not Typically Contain Fish*
Asian food (for example, egg rolls, tempura, sushi)	Asian food made without fish or fish sauce, other ethnic foods
Fish products (for example, baked fish, fish sticks)	Beef, veal, pork, ham, chicken, turkey, lamb; or beans and legumes
Caesar salad and Caesar dressing (contain fish ingredients, anchovies); tuna salad	Salad and salad dressings that do not contain fish
Worcestershire sauce (may contain anchovies) and fish sauce	Condiments that do not contain fish

*Always check the ingredient label to verify ingredients and check for potential cross contamination

Common Questions

Someone I know became ill after eating fish but did not test positive for fish allergies. How is that possible?

When scombroid species of fish—such as tuna, mackerel, or bluefish—are not held at proper temperatures, bacteria produce a toxin called histamine. The histamine from the contaminated fish can mimic the histamine produced in the body during an allergic reaction. Scombroid poisoning produces symptoms similar to those present in an allergic reaction: flushing, sweating, headache, dizziness, nausea, rash or hives, diarrhea, and abdominal cramps. When serving scombroid fish, it is important to purchase it from a reputable vendor and to maintain cold holding temperatures. These histamines are not destroyed by freezing or cooking.

Are there any special concerns with cross-contact when preparing food for children with fish allergies?

Cross-contact is a concern for all allergens, but there are a few specific concerns related to fish allergies. Frying is not a recommended method of cooking in schools, but if fish is fried, the cooking oil can become contaminated. If you serve children with fish allergies, you should never cook other food in the same oil that was used to cook fish. Additionally, fish protein can become airborne in steam from cooking, so caution should be used to prevent cross-contact.



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References

- Food Allergy & Anaphylaxis Network. (2010). *Fish allergy*. Retrieved July 12, 2010, from <http://www.foodallergy.org/page/fish-allergy>
- Food Allergy Initiative. (2010). *Fish allergy*. Retrieved July 12, 2010, from <http://www.faiusa.org/?page=fish>
- U.S. Food and Drug Administration. (2009). *Food allergies: What you need to know*. Retrieved May 27, 2010, from <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079311.htm>

For More Information

Food Allergy & Anaphylaxis Network, Fish Allergy
<http://www.foodallergy.org/page/fish-allergy>

Food Allergy Initiative, Fish Allergy
<http://www.faiusa.org/?page=fish>

U.S. Food and Drug Administration, Food Allergens
<http://www.fda.gov/Food/FoodSafety/FoodAllergens/default.htm>

This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the National Food Service Management Institute at The University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

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