

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
- Eczema
- Swelling
- 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



FOOD ALLERGY FACT SHEET

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 major eight food 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, 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. It is recommended that labels 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 (http://www.fns.usda.gov/sites/default/files/special_dietary_needs.pdf) for information on the required content of the physician’s statement. 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.

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. Child 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/peas 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 contact.

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 and child care centers, 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.



FOOD ALLERGY FACT SHEET

References

Food Allergy Research & Education. (2014). *Fish allergy*. Retrieved from <http://www.foodallergy.org/allergens/fish-allergy?>

Food Allergy Research and Education. (2014). *Fish allergy*. Retrieved from <http://www.foodallergy.org/allergens/fish-allergy>

U.S. Food and Drug Administration. (2014). *Food allergies: What you need to know*. Retrieved from <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079311.htm>

For More Information

Food Allergy Research and Education
<http://www.foodallergy.org>

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

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FOOD ALLERGY FACT SHEET

Shellfish Allergies

Which shellfish are most likely to cause an allergic reaction?

There are two types of shellfish: crustaceans (crab, lobster, and shrimp) and mollusks (clams, mussels, and oysters). Crustacean shellfish are considered the most allergenic. Because many people with allergies to one type of shellfish are also allergic to other types, it may be advised to avoid all shellfish.

Shellfish is the most common food allergy reported by adults and usually develops in early adulthood. Shellfish allergies are considered life-long.

What are the symptoms?

Shellfish allergy symptoms include:

- Hives, itching, or eczema
- Swelling of the lips, face, tongue, and throat, or other parts of the body
- Wheezing, nasal congestion, or trouble breathing
- Abdominal pain, diarrhea, nausea, or vomiting
- Dizziness, lightheadedness, or fainting
- Tingling in the mouth

Shellfish, along with peanuts and tree nuts, is one of the most common causes of anaphylaxis. Signs of anaphylaxis include constriction of airways making breathing difficult, rapid pulse, drop in blood pressure, and dizziness or loss of consciousness.

What foods contain shellfish?

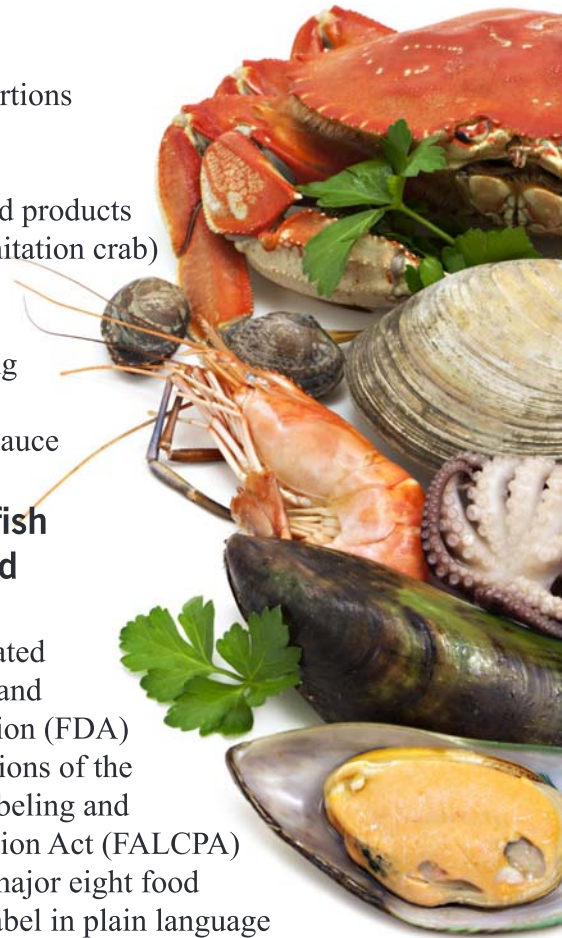
Individuals with a shellfish allergy should check with their physician to find out what type of shellfish they should avoid (crustaceans and/or mollusks). Asian food and sauces commonly contain shellfish, so a person with shellfish allergies should use extreme caution when eating Asian food or should 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 shellfish. Below is a list of products that could contain shellfish and should be avoided.

- Asian food and sauces (for example, fried rice and oyster sauce)
- Bouillabaisse
- Cioppino
- Ceviche
- Egg rolls
- Fish sticks or portions
- Fish stock
- Gumbo
- Imitation seafood products (for example, imitation crab)
- Jambalaya
- Paella
- Seafood flavoring
- Sushi
- Worcestershire sauce

How are shellfish 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 including the major eight food allergens on the label in plain language either in the ingredient list or in a “contains” statement. Crustacean shellfish is considered by FALCPA to be one of the major eight food allergens. FALCPA requires that the specific type of crustacean shellfish (for example, crab, lobster, or shrimp) be declared on the food label.



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For example, egg rolls that contain shrimp, a crustacean shellfish, must follow FALCPA regulation and could be labeled in either of the ways shown in the examples below (bold is used for illustrative purposes only):

Label 1	Label 2
<p>INGREDIENTS: FILLING INGREDIENTS- Cabbage, Shrimp, Onion, Water, Carrots, Celery, Textured vegetable protein [Soy flour, Zinc oxide, Niacinamide, ferrous sulfate, salt, sugar, spice, natural flavor, corn syrup solids and citric acid]. WRAPPER INGREDIENTS- Enriched wheat flour[wheat flour, niacin, reduced iron, thiamine mononitrate (vitamin B1), riboflavin (vitamin B2)], water, modified food starch, cottonseed oil, egg, salt, sodium benzoate, corn starch (use for dusting). Fried in cottonseed and/or canola oil.</p> <p>Contains: Shrimp</p>	<p>INGREDIENTS: FILLING INGREDIENTS- Cabbage, Shrimp, Onion, Water, Carrots, Celery, Textured vegetable protein [Soy flour, Zinc oxide, Niacinamide, ferrous sulfate, salt, sugar, spice, natural flavor, corn syrup solids and citric acid]. WRAPPER INGREDIENTS- Enriched wheat flour[wheat flour, niacin, reduced iron, thiamine mononitrate (vitamin B1), riboflavin (vitamin B2)], water, modified food starch, cottonseed oil, egg, salt, sodium benzoate, corn starch (use for dusting). Fried in cottonseed and/or canola oil.</p>

Mollusks are not considered a major allergen by FALCPA, so ingredient information for this type of shellfish may not be fully disclosed on the label. Because mollusks are not required to be labeled the same way that crustaceans are labeled, special care must be taken when reading labels for different types of shellfish.

A food label for oyster sauce containing oysters, a mollusk shellfish, is not required to follow FALCPA regulations but is required to list ingredients by their usual and common names.

Label
<p>INGREDIENTS: Water, Sugar, Salt, Oyster Extractives (Oyster, Water, Salt), Modified Corn Starch, Caramel Color.</p>

If there is uncertainty about whether a food product contains a type of shellfish that a student must avoid, call the manufacturer for more information or do not serve the food. Below is a list of types of shellfish with specific shellfish names.

Crustaceans

- Barnacle
- Crab
- Crawfish (crawdada or crayfish)
- Lobster
- Shrimp (prawns)

Mollusks

- Abalone
- Clams
- Cockle
- Cuttlefish
- Limpets
- Mussels
- Octopus
- Oysters
- Periwinkle
- Scallops
- Sea cucumber
- Sea urchin
- Snails (escargot)
- Squid (calamari)
- Whelk

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



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Because food labels change from time to time, child nutrition staff should check labels for shellfish and shellfish ingredients for every product each time it is purchased. It is recommended that labels 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 shellfish 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 (http://www.fns.usda.gov/sites/default/files/special_dietary_needs.pdf) for information on the required content of the physician's statement. 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.

The child nutrition department must not under any circumstance provide a meal to a child with life threatening food allergies if the physician's statement is not clear or if food labels do not provide clear information on ingredients.

Making menu substitutions for shellfish is usually easily done because they are not used often on school and child care menus. However, shellfish-based ingredients in condiments and sauces may be a concern in child nutrition programs, particularly with increasing popularity of ethnic dishes. If shellfish or entrees containing shellfish as an ingredient are used on the menu, make sure another entree that does not contain shellfish can be selected for that meal. This approach will minimize the need to prepare special recipes or to make menu substitutions.

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

Common Menu Items/Ingredients That May Contain Shellfish	Possible Substitutes or Alternatives That Do Not Typically Contain Shellfish*
Asian food (for example, egg rolls, fried rice, lo mein)	Asian food made without shellfish, other ethnic foods
Fish sticks, nuggets, or patties	Chicken nuggets or patties
Jambalaya or paella	Jambalaya or paella made without shellfish, other rice dishes without shellfish
Shellfish products (for example, crab, lobster, shrimp)	Beef, pork, ham, chicken, turkey, or fish; beans and legumes
Worcestershire sauce, salad dressings, fish sauce, soy sauce, surimi	Sauces and salad dressings that do not contain shellfish

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



FOOD ALLERGY FACT SHEET

Common Questions

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

Cross contact is a concern for all allergens, but there are specific concerns related to shellfish allergies. Frying is not a recommended method of cooking in schools and child care centers, but if shellfish is fried, the cooking oil can become contaminated. If you have students with shellfish allergies, no food for this student should be cooked in the same oil that was used to cook shellfish or shellfish products. Cross contact also can occur from utensils and grills.

Do I need to worry about shellfish exposure? My school does not serve shellfish.

Shellfish can be an ingredient in some common sauces and condiments, such as soy sauce and Worcestershire sauce, so it is still important to read food labels to ensure safety. Shellfish is sometimes used as an ingredient in fish products, so specifically check these labels for shellfish.

References

Food Allergy Research & Education. (2014). Shellfish allergy. Retrieved from <http://www.foodallergy.org/allergens/shellfish-allergy?>

Food Allergy Research & Education. (2014). How to read a label for a shellfish-free diet. Retrieved from <http://www.foodallergy.org/document.doc?id=133>

Mayo Clinic. (2011). Shellfish allergy: Symptoms. Retrieved from <http://www.mayoclinic.org/diseases-conditions/shellfish-allergy/basics/symptoms/con-20032093>

U.S. Food and Drug Administration. (2014). Food allergies: What you need to know. Retrieved from <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079311.htm>

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08/14



Food Allergy: Fish and Shellfish

Post Test – March 2018

**Please keep this test and certificate in your files for Licensing.
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1. Salmon, _____ and halibut are the fish most likely to cause allergic reactions.
2. A person who has a fish allergy may be able to tolerate shellfish.
True or False?
3. Fish allergy symptoms can include: _____, _____, _____.
(Name three)
4. _____ food is often flavored with fish sauce so a person with fish allergies should use extreme caution when eating this food.
5. It is always safe to cook other food in the same oil that was used to cook fish.
True or False?
6. There are two types of shellfish: _____ and _____.
7. Shellfish is the most common food allergy reported by adults and usually develops in early adulthood.
True or False?
8. Seafood restaurants should be avoided because the possibility of _____ is very high.
9. Eggrolls, gumbo and paella can be made without fish or shellfish and would be safe to serve to children with fish or shellfish allergies.
True or False?
10. The Food Allergen Labeling and Consumer Protection Act require that the specific type of crustacean shellfish be declared on the _____
_____.



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