

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?

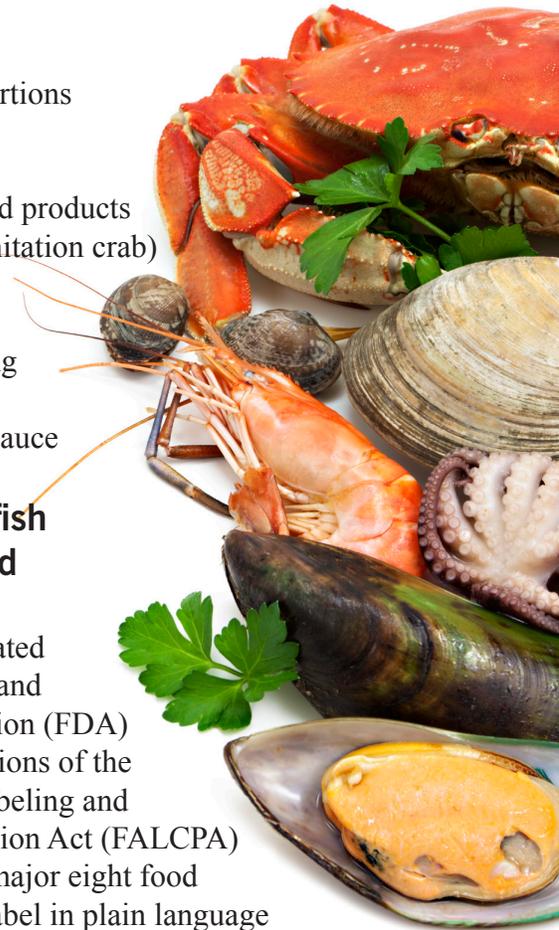
Individuals with a shellfish allergy should check with their physician to find out what type of shellfish they should avoid (crustaceans and/or mollusks). Asian food and sauces commonly contain shellfish, so a person with shellfish allergies should use extreme caution when eating Asian food or should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



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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

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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>

For More Information

Food Allergy Research & 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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