

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, shrimp, crawfish, and prawn) and mollusks (clams, mussels, squid, snails, oysters, and scallops). 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, throat, or other parts of the body
- Wheezing, nasal congestion, or trouble breathing
- Digestive symptoms (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.

- Anaphylaxis
 - Constriction of airways (swollen throat or a lump in the throat making breathing difficult)
 - Rapid pulse
 - Shock (a severe drop in blood pressure felt as dizziness, lightheadedness, or loss of consciousness)

What foods contain shellfish?

Individuals with a shellfish allergy should check with their healthcare professional to find out what type of shellfish they should avoid (crustaceans and/or mollusks). Asian foods and sauces commonly contain shellfish, so a person with shellfish 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 the child nutrition staff read all food labels to check for shellfish. Below is a list of items that could contain shellfish and should be avoided. A list of specific crustacean and mollusk names are listed later in this resource.

Products or Ingredients

- Asian foods and sauces (for example, fried rice and oyster sauce)
- Bouillabaisse
- Cioppino
- Ceviche
- Cuttlefish ink
- Egg rolls
- Fish sticks or portions
- Fish stock
- Glucosamine (also a dietary supplement)
- Gumbo
- Imitation seafood products (for example, imitation crab)
- Jambalaya
- Paella
- Seafood flavorings (crab or clam extract)
- Surimi
- Sushi
- Worcestershire sauce

Where are shellfish located on food labels?

Food labels that are regulated by the U.S. Food and Drug Administration (FDA) follow the regulations of the *Food Allergen Labeling and Consumer Protection Act (FALCPA)*. FALCPA requires that the major eight food allergens are listed on the label in one of



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three ways: (1) using the common name, (2) common name written in parenthesis after the ingredient, or (3) 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.

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 the student must avoid, call the manufacturer for more information and do not serve the food to the student. Below is a list of types of shellfish with specific shellfish names.

Crustaceans

- Barnacle
- Crab
- Crawfish (crawdada, crayfish, or ecrevisse)
- Krill
- Lobster (langouste, langoustine, scampi, tomalley, Moreton bay bugs)
- Prawn
- Shrimp (crevette, scampi)

Mollusks

- Abalone
- Clam (cherrystone, geoduck, littleneck, Pismo, quahog)
- Cockle
- Cuttlefish
- Limpet (lapas, opihi)
- Mussel
- Octopus
- Oyster
- Periwinkle
- Scallop
- Sea cucumber
- Sea urchin
- Snail (escargot)
- Squid (calamari)
- Whelk (Turban shell)



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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.

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 received. 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. If the product is saved as leftovers, labels should be kept for 24 hours after the entire product is used up or discarded.

What substitutes can be used for shellfish in student meals?

When menu substitutions or accommodations for a student with life-threatening food allergies are outside of the meal pattern, a medical statement from a state licensed healthcare professional, such as a physician, is required. Refer to the manual *Accommodating Children with Disabilities in the School Meal Programs: Guidance for School Food Service Professionals* on the USDA website (<https://www.fns.usda.gov/2017-edition-accommodating-children-disabilities-school-meal-programs>) for information on the required content of the medical statement. If there is uncertainty about the statement, or if it does not provide enough information, contact the household or healthcare professional (as permitted by the family) for clarification. However, clarification of the medical statement should not delay the child nutrition department from providing a meal modification. Child nutrition staff should follow the portion of the medical statement that is clear and unambiguous to the greatest extent possible while obtaining the additional information or amended statement.

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 the 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 foods (for example, egg rolls, fried rice, lo mein)	Asian foods made without shellfish, other ethnic foods
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
Fish sticks, nuggets, or patties	Chicken nuggets or patties
Worcestershire sauce, salad dressings, fish sauce, soy sauce, surimi	Sauces and dressings that do not contain shellfish

*Always check ingredient labels 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 are 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 for cooking 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.



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References

- Centers for Disease Control and Prevention. (2013). *Voluntary guidelines for managing food allergies in schools and early care and education programs*. www.cdc.gov/healthyyouth/foodallergies/
- Food Allergy Research & Education. (n.d.). *Shellfish allergy*. <https://www.foodallergy.org/living-food-allergies/food-allergy-essentials/common-allergens/shellfish>
- Food Allergy Research & Education. (2019). *Tips for avoiding your allergen*. <https://www.foodallergy.org/resources/tips-avoiding-your-allergens>
- Mayo Clinic. (2019). *Shellfish allergy: Symptoms & causes*. <https://www.mayoclinic.org/diseases-conditions/shellfish-allergy/symptoms-causes/syc-20377503>
- U.S. Department of Agriculture. (2017). *Accommodating children with disabilities in the school meal programs: Guidance for school food service professionals*. <https://www.fns.usda.gov/2017-edition-accommodating-children-disabilities-school-meal-programs>
- U.S. Food and Drug Administration. (2018). *Food allergen labeling and consumer protection act of 2004 (FALCPA)*. <https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Allergens/ucm106187.htm>
- U.S. Food and Drug Administration. (2018). *What you need to know about food allergies*. <https://www.fda.gov/food/buy-store-serve-safe-food/what-you-need-know-about-food-allergies>

For More Information

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

Institute of Child Nutrition
<http://www.theicn.org/foodsafety>

U.S. Food and Drug Administration
Food Allergens
<http://www.fda.gov/Food/IngredientsPackagingLabeling/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 Institute of Child Nutrition 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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Suggested Reference Citation:
Institute of Child Nutrition. (2020). *Shellfish allergies*. University, MS: Author.

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06/23/2020



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