Fish, crustaceans and molluscs are sometimes collectively referred to as seafood. Crustaceans and molluscs are sometimes collectively referred to as shellfish.

Allergic reactions are adverse reactions that occur when the body’s immune system overreacts to a particular allergen. These reactions may be caused by food, insect stings, latex, medications and other substances.

In Canada, the priority food allergens are peanuts, tree nuts (almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachio nuts and walnuts), sesame seeds, milk, eggs, fish, crustaceans and molluscs, soy, wheat or triticale (a hybrid of wheat and rye grains), and mustard. Sulphites (a food additive), which do not cause true allergic reactions, are generally grouped with the priority allergens because sulphite-sensitive individuals may react to sulphites with allergy-like symptoms.

What are the symptoms of an allergic or allergic-type reaction?

When someone comes in contact with a food allergen or added sulphites, the symptoms of an allergic or allergic-type reaction may develop quickly and rapidly progress from mild to severe. The most severe form of an allergic reaction is called anaphylaxis. Symptoms can include breathing difficulties, a drop in blood pressure or shock, which may result in loss of consciousness and even death. A person experiencing an allergic reaction may have any combination of the following symptoms:

• Skin: hives, swelling (face, lips, tongue), itching, warmth, redness;
• Respiratory: coughing, wheezing, shortness of breath, chest pain or tightness, throat tightness, hoarse voice, nasal congestion or hay fever-like symptoms (runny, itchy nose and watery eyes, sneezing), trouble swallowing;
• Gastrointestinal: nausea, pain or cramps, vomiting, diarrhea;
• Cardiovascular: paler than normal skin colour/blue skin colour, weak pulse, dizziness or light-headedness, loss of consciousness, shock;
• Other: anxiety, sense of impending doom, headache, uterine cramps, metallic taste.

Source: Anaphylaxis in Schools & Other Settings
How are severe allergic reactions treated?
Currently there is no cure for food allergies. The only option for managing the risk is to completely avoid the specific allergen. Appropriate emergency treatment for anaphylaxis (a severe allergic reaction) includes an injection of epinephrine, which is available in an auto-injector device. Epinephrine is the only medication that can stop an allergic reaction from progressing and must be administered as soon as symptoms of a severe allergic reaction appear. Antihistamines, if used, should be given AFTER epinephrine has been administered. The injection must be followed by further treatment and observation in a hospital emergency room. If your allergist has diagnosed you with a food allergy and prescribed epinephrine, carry it with you all the time and know how to use it. Follow the advice of your allergist on how to use an auto-injector device.

Frequently asked questions about crustacean and mollusc allergies

What is the difference between crustaceans and molluscs?
Crustaceans are aquatic animals that have jointed legs, a hard shell and no backbone, such as crab, crayfish, lobster, prawns and shrimp. Most molluscs have a hinged two-part shell and include clams, mussels, oysters and scallops, as well as various types of octopus, snail and squid. In this pamphlet, the common term shellfish includes both crustaceans and molluscs.

How can I avoid a crustacean or mollusc-related reaction if I’m allergic to any of these foods?

- Read food labels
  Avoid all food and products that contains the species of crustaceans or molluscs to which you are allergic and any product whose label carries a precautionary statement warning that the product might contain the specific species or general class of crustacean or mollusc to which you are allergic, such as “may contain” crustaceans or molluscs or a specific type of crustaceans or molluscs (e.g., “may contain shrimp”). When provided by a manufacturer, precautionary statements are usually found after the list of ingredients or “Contains” statement if there is one. By December 2021 any precautionary statements will have to appear in this location only.
  If crustacean or mollusc is part of the product formulation, the specific species of crustacean or mollusc must be declared in the list of ingredients or in a separate “Contains” statement immediately following the list of ingredients. Crustacean and molluscs should be listed on the label of pre-packaged foods using their common names (e.g., lobster, crab, clam, oyster, etc.).

- Avoid any products that do not have an ingredient list.
  Read labels every time you shop. Manufacturers may occasionally change their recipes or use different ingredients for varieties of the same product.

Who is affected by crustacean or mollusc allergies?
Crustacean and mollusc allergies predominantly affect adults and are less common among young children. These allergies tend to develop later in life than the common childhood allergies. Allergies to crustaceans and molluscs are usually lifelong conditions. Consult your allergist before reintroducing crustaceans and molluscs products into your diet.

If I am allergic to one type of shellfish will I be allergic to other types of seafood?
People with allergies to one type of seafood, like fish, crustaceans (lobster, crab, etc.) and molluscs (oysters, clams, etc.), may not be allergic to other kinds of seafood. Studies suggest that seafood allergies tend to fall within groups. In fact, many people are only allergic to a single type of seafood. For example, some people can eat fish safely but react to crustaceans such as crab and lobster. Some people will react to both crustaceans and molluscs but that is the exception rather than the rule.

If you’re allergic to one type of shellfish such as crustaceans, consult your allergist before trying other types, such as molluscs.

Can I have a crustacean or mollusc-related reaction even if I do not eat or use shellfish?
People with crustacean or mollusc allergies can experience allergic reactions even without eating these foods. On rare occasions, exposures to proteins carried in cooking vapours (such as steam from a boiled/steamed shellfish) and on dishes used to present these foods (such as sizzling skillets) have been reported to trigger an allergic reaction.

What do I do if I am not sure whether a product contains crustacean or molluscs?
If you have a crustacean or mollusc allergy, do not eat, drink or use the product. Obtain ingredient information from the manufacturer.

Does product size affect the likelihood of an allergic reaction?
Product size does not affect the likelihood of a reaction; however, the same brand of product may be safe to consume for one product size but not another. This is because product formulation may vary between different product sizes of the same product or be produced in a different facility. Always read the ingredient lists carefully.
**Most common crustaceans**
Crab, crayfish (crawfish), lobster (coral), prawns, shrimp.

**Most common molluscs**
Abalone, clam, cockle, conch, limpets, mussels, octopus, oysters, periwinkle, quahaus, scallops, land and sea snails (escargot), squid (calamari), whelks, geoducks.

Avoid food and products that do not have an ingredient list and read labels every time you shop.

**Sources of crustaceans and molluscs**

**Examples of foods and products that contain or often contain crustaceans and molluscs**
- Combination foods, e.g., fried rice, paella and spring rolls (from rolls or sauce)
- Garnishes, e.g., antipasto, caponata (Sicilian relish)
- Sauces, e.g., alle vongole, marinara, oyster sauce
- Sushi

**Other possible sources of crustaceans and molluscs**
- Dips, spreads
- Fried foods (from contaminated frying oil)

**Non-food sources of crustaceans and molluscs**
- Compost or fertilizers
- Lip balm, lip gloss
- Pet food and pet bedding

*Note: These lists are not complete and may change. Food and food products purchased from other countries, through mail-order or the Internet, are not always produced using the same manufacturing and labelling standards as in Canada.*

---

**What can I do?**

**Be informed**
Consult your allergist or physician in order to obtain the advice and support needed to help manage your condition. Contact your allergy association for further information.

If you or anyone you know has food allergies and would like to receive information about food being recalled due to improper allergen labelling, sign up for the Canadian Food Inspection Agency’s (CFIA) e-mail “Food Recalls and Allergy Alerts” ([www.inspection.gc.ca/english/util/listserv/listsube.shtml?foodrecalls_rappelsaliments](http://www.inspection.gc.ca/english/util/listserv/listsube.shtml?foodrecalls_rappelsaliments)) notification service available. When you sign up you will automatically receive timely food recall notifications.

**Before eating**
Allergists recommend that if you *do not have* your auto-injector device with you that you *do not eat*. If the label indicates that a product “contains” or “may contain” crustaceans or molluscs, do not eat it. If you do not recognize an ingredient, if there is no ingredient list available or if you don’t understand the language written on the packaging, avoid the product.

**Watch out for allergen cross-contamination!**

Cross-contamination is the accidental transfer of an ingredient (food allergen) to a product that does not normally have that ingredient in it. Through cross-contamination, a food that should not contain the allergen could become dangerous to eat for those who are allergic.

Cross-contamination can happen:
- during *food manufacturing* through shared production and packaging equipment;
- at *retail* through shared equipment, e.g., fish counters where fish, crustaceans and molluscs are displayed side-by-side;
- during *food preparation* at home, daycares, schools or in restaurants through equipment, utensils and hands.
What is the Government of Canada doing about priority food allergens, gluten sources and added sulphites?

The Government of Canada is committed to providing Canadians with the information they need to make safe and healthy food choices. The Canadian Food Inspection Agency (CFIA) and Health Canada work closely with municipal, provincial and territorial partners and industry to meet this goal.

The CFIA enforces Canada’s labelling laws and works with associations, distributors, food manufacturers and importers to ensure complete and appropriate labelling of all foods. The CFIA recommends that food companies establish effective allergen controls to prevent the occurrence of undeclared allergens and cross-contamination. The CFIA has developed guidelines and tools to aid food companies in developing these controls. When the CFIA becomes aware of a potential hazard associated with a food, such as undeclared allergens, Health Canada is asked to assess the situation. When a serious risk is identified, the food product is recalled from the marketplace and a public warning is issued. The CFIA has also published several advisories to industry and consumers regarding allergens in food.

Health Canada has worked with the medical community, consumer associations, and the food industry to enhance labelling regulations for food allergens, gluten sources and added sulphites in pre-packaged food sold in Canada. Health Canada has amended the Food and Drug Regulations to require that the most common foods and food ingredients that may cause life-threatening or severe allergic reactions are always clearly identified by their common names on food labels allowing consumers to easily recognize them and make safe and informed food decisions.

More information on the regulations that enhance the labelling of food allergens, gluten sources and added sulphites can be found on the Health Canada website.

If you come across a food that you think is improperly labelled, contact the CFIA and provide information about the product. Report a food safety or labelling concern.

Where can I get more information?

For more information on:
• food allergies

For information on:
• subscribing to the “Food Recalls and Allergy Alerts” e-mail notification service
   visit the CFIA Website at www.inspection.gc.ca/english/util/listserv/listsube.shtml?foodrecalls_rappelsaliments or call 1-800-442-2342/TTY 1-800-465-7735 (8:00 a.m. to 8:00 p.m. Eastern time, Monday to Friday).

For information on this and other Government of Canada programs and services call
• 1-800-O-Canada (1-800-622-6232)
• TTY 1-800-465-7735

Below are some organizations that can provide additional allergy information:
• Allergy/Asthma Information Association www.aaia.ca
• Food Allergy Canada www.foodallergycanada.ca
• Allergies Québec www.allergies-alimentaires.org (French only)
• Canadian Society of Allergy and Clinical Immunology www.csaci.ca (English only)