



Fact Sheet

FOOD SAFETY FACTS ON SCOMBROID POISONING

Several illnesses are associated with the consumption of tainted, decomposed or unwholesome fish and fish products, including shellfish. These include illnesses caused by fish which carry bacteria or other microorganisms, and illnesses caused by fish contaminated with toxins.

What is Scombroid Poisoning?

- Scombroid Poisoning is an allergic type reaction to high levels of histamine in fish.
- When certain fish, especially scombroid fish, start to decompose, histamine is formed.
- Histidine, a naturally-occurring amino acid, is converted into histamine by an enzyme produced by certain bacteria. Histamine, in small doses, is necessary for the proper functioning of the human immune system. However, histamine may trigger severe allergic reactions when consumed in high doses.
- The presence of high levels of histamine always indicates that decomposition has occurred, even if the decomposition is not obvious. Toxic amounts of histamine can form before a fish smells or tastes bad.

What are the symptoms of Scombroid Poisoning?

- The most commonly reported symptoms of Scombroid Poisoning include rash, flushed skin, facial swelling, nausea, vomiting, diarrhea, headache, dizziness, a peppery taste in the mouth, burning throat, stomach pain, itchy skin, tingling, and palpitations.
- Symptoms can occur immediately to several hours after consumption of food with high levels of histamine. They typically last for a few hours, but in certain cases can last for several days, and may require administration of antihistamines.

Where could I come into contact with scombroid poisoning?

- The most common source of Scombroid Poisoning is fish of the *Scombridae* and *Scomberesocidae* families, known as “scombroid fish”, which includes tuna, bonito and mackerel. These fish have large amounts of free histidine that may be converted to histamine during storage.

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- Scombroid Poisoning can also be caused by marlin and fish of other families, such as *Clupeidae* (herring, sardines), and *Coryphaenidae* (mahi-mahi), or even other foods such as cheese.

What can I do to protect myself and my family?

- Histamine formation in fish depends on the temperature at which the fish is kept from the time it is caught until it is consumed. Therefore, in order to avoid Scombroid Poisoning, it is very important to transport and store fish under refrigeration.
- Cooking or other heat treatments (such as canning or smoking) do not destroy histamine.
- Fish products should only be bought from known, reputable retail outlets.
- If you think you have symptoms of Scombroid Poisoning, consult your physician.

What are fish processors doing to protect consumers?

- Since 1992, all federally registered fish processing plants must participate in the Quality Management Program (QMP), where the plant must assume responsibility for ensuring that their facilities and products meet federal quality and safety requirements.
- Each plant must develop its own QMP which identifies critical points in the processing chain where control measures must be in place to ensure that products comply with regulatory standards.

What is the Canadian Food Inspection Agency (CFIA) doing to protect consumers?

- CFIA regulates the processing of fish in all federally registered fish processing plants. All plants that ship product from one province to another, or export to other countries, must be registered with the CFIA.
- Fish plants are required to have a QMP in place and CFIA inspectors regularly conduct verifications of QMPs to see if they meet the requirements of the *Fish Inspection Regulations*.
- The CFIA also monitors imports of fish products and conducts regular inspections. Imports must meet the same requirements as domestic products.

For more information on foodborne illness and safe food handling practices, visit the Canadian Food Inspection Agency website at www.inspection.gc.ca