# Fact Sheet

## FOOD SAFETY FACTS ON AMNESIC SHELLFISH POISONING (ASP)

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

Marine biotoxins are a group of natural toxins that sometimes accumulate in fish and shellfish. Many biotoxins are produced by microscopic marine algae (phytoplankton, including diatoms and dinoflagellates) and can accumulate in fish or shellfish if they ingest these algae.

There are several types of illnesses, caused by marine biotoxins, that are connected with the consumption of contaminated shellfish. They include Paralytic Shellfish Poisoning (PSP), Amnesic Shellfish Poisoning (ASP), and Diarrhetic Shellfish Poisoning (DSP).

**What are Amnesic Shellfish Poisoning and domoic acid?**

- Amnesic Shellfish Poisoning (ASP) is an illness caused by domoic acid, a marine biotoxin. Domoic acid is a naturally-occurring amino acid found in some marine algae, including some species of diatoms.
- Domoic acid can accumulate in a number of filter-feeding bivalve molluscan shellfish such as clams, mussels, scallops and oysters.
- ASP was unknown in Canada until November 1987, when an outbreak occurred in Eastern Canada. The source was traced to mussels from a single estuary in Prince Edward Island.
- There have been no known cases of illness from ASP in Canada since routine testing for the toxin began in 1988.

**What are the symptoms of ASP?**

- The symptoms of ASP vary from nausea, vomiting and diarrhea to muscle weakness, disorientation and memory loss. They usually occur 30 minutes to 6 hours after consumption.
- If the poisoning is not severe, the symptoms disappear completely within a few days in an otherwise healthy person.

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- People with certain illnesses, such as kidney problems, are more likely to develop severe symptoms.
- In extreme cases death can occur. In the 1987 outbreak, four people died from ASP.

**Where could I come into contact with ASP?**

- Most cases of illness from ASP are linked to the consumption of bivalve molluscan shellfish, such as clams, mussels, oysters and scallops, containing high levels of domoic acid.
- Many cases occur from shellfish harvested recreationally, from closed areas on the Atlantic and Pacific coasts and along the St. Lawrence River, during the summer months.

**How can I protect myself and my family?**

- In order to avoid ASP, only shellfish harvested from open harvest areas should be consumed. When an area is closed to shellfish harvesting, signs are posted and the public is warned by means of a general announcement in the news media.
- If you think you have symptoms of shellfish poisoning, consult your physician immediately.

**How does the Canadian Food Inspection Agency (CFIA) protect consumers?**

- The CFIA operates a comprehensive shellfish monitoring program to provide early warning of the appearance of domoic acid (and other toxins) in bivalve molluscan shellfish.
- Under this program, the CFIA regularly analyzes shellfish samples, taken directly from shellfish growing areas, for domoic acid and PSP toxins. Hundreds of sites in Atlantic Canada, Quebec and British Columbia are regularly tested for domoic acid.
- When unacceptable levels of toxins are found in a shellfish growing area, the CFIA informs the Department of Fisheries and Oceans (DFO), which takes immediate measures to close the affected area to shellfish harvesting.
- When areas are closed, signs are posted and DFO fishery officers patrol the areas to prevent the harvesting of shellfish.

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

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