



Fact Sheet

Red Tide, PSP and Safe Shellfish Harvesting

Bivalve shellfish are an excellent source of protein, are high in essential minerals, and low in calories, fat and cholesterol. Bivalve shellfish have a hinged two-part shell. They include oysters, clams, scallops, mussels and cockles.

Bivalve shellfish are highly sensitive to the quality of their marine environment. They feed on microscopic plants that can sometimes produce marine biotoxins, which can build up in their tissues. Eating shellfish with high levels of these biotoxins can lead to serious and potentially fatal illness. Paralytic Shellfish Poisoning (PSP), as well as Amnesic Shellfish Poisoning (ASP) and Diarrhetic Shellfish Poisoning (DSP) are the most common human illnesses associated with marine biotoxins in Canada. Bacteria, viruses, metals and contaminants may also build up in the tissues of bivalve shellfish and cause food safety concerns for consumers.

The Canadian Food Inspection Agency (CFIA) monitors shellfish harvesting areas to provide early warning of PSP toxins (and other toxins) in shellfish. Hundreds of sites in Atlantic Canada, Quebec and British Columbia are regularly tested for PSP toxins. The Agency analyzes shellfish samples and, when levels are unacceptable, it notifies the Fisheries and Oceans Canada (DFO) which takes immediate action to close the affected area to shellfish harvesting. When areas are closed, signs are posted, media are notified, and DFO fishery officers patrol the areas to prevent the harvesting of shellfish.

What is Red Tide?

Under specific marine environmental conditions, certain species of microscopic algae can multiply rapidly causing a "bloom" in population. This phenomenon is commonly referred to as a red tide because, at times, seawater can become discoloured from the dense accumulation of algae. Algal blooms are most common in the spring and summer months when sunlight, temperature and precipitation favour algal growth. However, algal blooms can occur at other times of the year as well. Red tide events can include biotoxin-producing algae that can contaminate bivalve shellfish in the area. It is also important to note that many toxin-producing algal blooms do not produce color and cannot be readily seen from shore.

For more information on Red Tide, visit DFO's Web site at: www.dfo-mpo.gc.ca

What is Paralytic Shellfish Poisoning?

Paralytic Shellfish Poisoning (PSP) is an illness caused by marine biotoxins produced by blooms of microscopic plankton. PSP toxins can accumulate in a number of filter-

feeding bivalve shellfish such as clams, mussels, scallops and oysters, and in the tomalley of crustaceans such as lobsters.

Symptoms of PSP include tingling and numbness of the lips, tongue, hands and feet, and difficulty swallowing. In severe situations this can proceed to difficulty walking, muscle paralysis, respiratory paralysis and death in as quickly as 12 hours.

So how can you protect yourself and your family?

First, be cautious when harvesting bivalve shellfish. It is your responsibility to call your nearest Fisheries and Oceans Canada (DFO) office (listed in the blue pages of the local telephone directory) to find out which areas are assigned as “open” for bivalve shellfish harvesting. An “open” area refers to a safe harvest area that is subject to monitoring and testing, and where harvesting is a legal activity. When an area is officially “closed,” it is illegal to harvest bivalve shellfish in that area for any purpose, unless a special scientific licence is issued.

Watch and listen for updates on the opening and closing of harvesting areas. These are communicated to the public through local media, notices posted in closed areas, and information provided by local DFO offices. It's also important that you purchase bivalve shellfish only from suppliers you trust and those who have harvested from open areas approved by DFO.

Once you get them home, bivalve shellfish should be refrigerated or frozen until they're ready to be eaten. Be mindful that cooking bivalve shellfish does not destroy toxins such as PSP or other contaminants. Properly cooked shellfish can still be toxic.

Anyone who feels ill after eating bivalve shellfish should immediately seek medical attention. There isn't one particular season that is safer than another; bivalve shellfish can have high levels of marine toxins during any given month, depending on environmental conditions. If you're planning on harvesting shellfish during your next vacation, remember that bivalve shellfish poisoning can also occur in other countries. Tourists should be cautious when consuming bivalve shellfish abroad.

For more information, visit the CFIA Website at www.inspection.gc.ca 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).

To find out which bivalve shellfish harvesting areas are open, call your nearest DFO office listed in the blue pages of your local telephone directories.