

In the past, shellfish poisoning events such as Paralytic Shellfish Poisoning (PSP) have been inaccurately called *red tide*. This term is wrong because the color of the water does not indicate whether toxins are present. In addition, several organisms and toxins have been found to cause illness. Instead of red tide, the term *marine biotoxin* is now used.

Outbreaks of naturally occurring marine biotoxins in Puget Sound are unpredictable, usually occurring when environmental conditions and other factors are favorable to the growth of organisms that produce the toxins. All filter feeders and animals that eat them, such as crabs and snails, may concentrate toxins in their bodies.

Blooms occur rapidly, so make sure to call the Marine Biotoxin Hotline (1-800-562-5632) or check the Marine Biotoxin Bulletin at www.doh.wa.gov/sf/biotoxin.htm (text) or www.doh.wa.gov/shellfishsafety.htm (maps) before harvesting shellfish. **It is important to note that cooking does not destroy biotoxins.** There are no known cures for paralytic shellfish poisoning and domoic acid poisoning.

Paralytic Shellfish Poisoning (PSP)

A microscopic, planktonic organism that grows naturally in Puget Sound produces PSP. The organism, *Alexandrium catenella*, produces toxins that, when concentrated in shellfish, can cause death to humans and other warm blooded animals that eat the shellfish. Certain shellfish may be toxic longer than others. Therefore, a PSP closure may be for all shellfish or just certain species. It is important to note which shellfish species are closed to harvest when calling the biotoxin hotline or checking the web sites.

Symptoms of PSP may include tingling of the lips, tongue, and fingertips, burning, numbness, drowsiness, incoherent speech, and respiratory paralysis. If you experience these symptoms after eating shellfish, seek medical help *immediately*.

Domoic Acid

Domoic acid is a toxic substance produced by a microscopic marine organism called *Pseudonitzschia*. Eating fish or shellfish containing this toxin causes human illness known as Amnesic Shellfish Poisoning (ASP), also known as Domoic Acid Poisoning (DAP).

Symptoms may include vomiting, diarrhea, abdominal pain, confusion, short-term memory loss, disorientation, and seizure. Severe cases may result in coma and possibly death. If you experience these symptoms after eating shellfish, seek medical help immediately.

Biotoxin Closures

Local health departments, citizen volunteers, local private organizations, and commercial shellfish companies send thousands of shellfish samples each year to the Washington State Department of Health, Public Health Laboratory to be tested for biotoxins. These samples come from Puget Sound, the Strait of Juan DeFuca, the Pacific Coast, Grays Harbor, and Willapa Bay. When laboratory tests show levels of biotoxin that may threaten public health, the affected area is closed under a biotoxin closure. Many beaches within the area may be closed to shellfish harvesting. Biotoxin closures are generally temporary, usually lasting a few months, while the biotoxin-producing organisms are present in the water. However, sometimes a closure may last many months.

Beach Classifications

The Washington State Department of Health, in conjunction with local health departments, evaluate each beach for chronic pollution problems (not to be confused with biotoxins). When sources of pollution and or water quality testing results near a shellfish beach indicate a potential threat to public health – the beach is classified as CLOSED due to pollution. Closures due to pollution are more long term because pollution problems tend to be chronic and hard to correct.

Want more information?

Call the Office of Shellfish and Water Protection at (360) 236-3330 or Communicable Disease Epidemiology (206) 418-5500 (toll free 1-877-539-4344).

Biotoxin Hotline (24-hour) 1-800-562-5632

Online: www.doh.wa.gov/ehp/sf/biotoxin.htm (general information)

KNOW BEFORE YOU DIG!

Check the DOH website at www.doh.wa.gov/shellfishsafety.htm

or

Call the Biotoxin Hotline at 1-800-562-5632

or

Call your local health department

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON