

Domoic Acid (ASP) in Shellfish



What is domoic acid?

Domoic acid is a naturally occurring toxin produced by microscopic algae, specifically the diatom species *Pseudo-nitzschia*. Shellfish and crab ingest this algae, where the toxin concentrates. Significant amounts of domoic acid can cause Amnesic Shellfish Poisoning (ASP) in humans. ASP is transmitted by eating contaminated molluscan shellfish and crab.

How long has domoic acid been a problem?

In the fall of 1991, domoic acid was detected in razor clams off the coast of Washington. In that same year, DOH began monitoring all major shellfish growing areas for domoic acid.

Is domoic acid present in all seafood?

Unsafe levels of domoic acid have been detected in razor clams and Dungeness crab in Washington coastal waters. Domoic acid has also been found in mussels, clams, and oysters in Puget Sound areas.

Razor clams accumulate domoic acid in the edible tissue (foot, siphon and mantle) and are slow to rid themselves of the toxin. In Dungeness crab, domoic acid primarily accumulates in the viscera (also known as the gut or "butter").

Does cooking the shellfish make it safe to eat?

No. The toxin is not destroyed by cooking or freezing.

What are the symptoms of ASP?

Symptoms include vomiting, nausea, diarrhea and abdominal cramps within 24 hours of ingestion. In more severe cases, neurological symptoms develop within 48 hours and include headache, dizziness, confusion, disorientation, loss of short-term memory, motor weakness, seizures, profuse respiratory secretions, cardiac arrhythmias, coma and possibly death. Short term memory loss is permanent, thus the name Amnesic Shellfish Poisoning.

What should I do if I think someone may have ASP?

If symptoms are mild, call your health care provider and your local public health agency. If symptoms are severe, call 911 or transport the affected person to the emergency room. There is no antidote for ASP.

How can I protect myself from ASP?

Because there is no antidote for ASP, prevention is the best protection. For all species, always check the State Department of Health Biotxin Closures at <http://www.doh.wa.gov/shellfishsafety.htm> or call the Shellfish Safety Hotline at 1-800-562-5632.

In addition to checking the status of Biotoxin closures:

For razor clams: The Washington State Department of Fish & Wildlife periodically opens recreational razor clam seasons, and does so only after DOH testing shows domoic acid to be at safe levels. Razor clam harvest is allowed only on days and in areas officially opened by Fish & Wildlife. Visit the Fish & Wildlife website at www.wdfw.wa.gov/fish/shelfish/razorclm/season.htm for dates and times.

For Dungeness crab: Check Fish and Wildlife crab harvest seasons at and be sure to clean the crab thoroughly, removing all viscera. Visit the Fish and Wildlife website www.wdfw.wa.gov/fish/shelfish/crab/index.htm for more information.

KNOW BEFORE YOU DIG!**Before going to the beach always:**

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

or

Call the Shellfish Safety Hotline at 1-800-562-5632

or

Call your local health department

Want more information?

Call the Office of Shellfish and Water Protection at (360) 236-3330.

Or visit www.doh.wa.gov/CommunityandEnvironment/Shellfish.aspx (general information)

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