



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.

Is domoic acid present in all seafood?

Unsafe levels of domoic acid have been detected in razor clams and Dungeness crab. Domoic acid has also been found in mussels, clams, and oysters.

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. The only way to protect your family and yourself from ASP is by not eating noncommercial shellfish collected from beaches in Alaska. Commercial shellfish in Alaska are routinely tested and are considered safe to eat.