Domoic Acid In Seafood

What is domoic acid?
Domoic acid is a naturally occurring marine biotoxin that may be produced during “blooms” of some species of algae. Scientists are still investigating when, how, and why this happens.

What are the symptoms of domoic acid poisoning?
- Signs and symptoms range from vomiting and diarrhea, to permanent loss of short-term memory (Amnesic Shellfish Poisoning) and, in severe cases, coma or death.
- Domoic acid poisoning in humans may occur within minutes to hours after eating contaminated seafood.

What seafood species are known to accumulate domoic acid?
- Bivalves, including razor clams, mussels, scallops, and oysters.
- Crustaceans, including crabs and lobsters.
- Other invertebrates, including squid.
- Finfish, including sardines and anchovies. Some species, such as razor clams, are very slow to remove domoic acid from their tissues. These species may still have high levels of domoic acid long after other species are safe to eat.

How is seafood monitored for domoic acid?
- The CA Department of Public Health (CDPH) and CA Department of Fish and Wildlife (CDFW) obtain seafood samples from volunteers and commercial operators who farm and harvest seafood.
- The CDPH laboratory analyzes the samples.

How are domoic acid concentrations in seafood evaluated?
- The Office of Environmental Health Hazard Assessment (OEHHA) and CDPH evaluate domoic acid concentrations in California seafood and determine the actions needed to protect human health.
- When domoic acid levels in a seafood species from an area exceed federal standards, actions could include:
  - Prohibiting the commercial catch and sale of affected species from that area.
  - Issuing an advisory warning consumers not to eat all or certain parts of affected fish or shellfish caught recreationally in that area.

How can I reduce my risk?
- Check for closure and advisory updates at CDFW’s Health Advisories for Finfish, Shellfish, and Crustaceans.
- Call CDPH’s Shellfish Biototoxin Information Line at 800-553-4133.
- Do not eat crab or lobster viscera (internal organs), also known as crab "butter" or "guts" and lobster “tomalley”. These typically contain much higher levels of domoic acid than meat.
- Discard water or broth used to cook crabs or lobsters. Don’t use them in sauces, broths, soups, stews or other dishes.

Where can I learn more?
- OEHHA Fish Advisory Program in California
  - 916-324 7572
  - fish@oehha.ca.gov
- CDPH Marine Biototoxin Monitoring Program
- CDPH Food and Drug Branch, Domoic Acid
- CDFW Health Advisories for Seafood
- California Ocean Science Trust - Harmful Algal Bloom and California Fisheries FAQ