

Paralytic Shellfish Poisoning

What you need to know about “red tide”

© Jan Rines

Alexandrium cells under a microscope.

What is PSP?

“Paralytic Shellfish Poisoning”, or PSP, is an illness people can contract from eating shellfish that’s been contaminated with toxins from a harmful algal bloom (also known as a “red tide”). These toxins can temporarily paralyze you, causing death in serious cases by making it impossible to breathe. Early symptoms include numbness and tingling in your lips and fingertips. Symptoms can develop either immediately or several hours after consuming the contaminated shellfish. With medical care, patients with PSP can recover fully in hours or days.

PSP toxins are produced by *Alexandrium*, a genus of microscopic marine plants (phytoplankton). When *Alexandrium* multiply especially rapidly and start producing toxins, shellfish feeding on those plankton can become contaminated. Even cooking or freezing the shellfish does not make them safe.



Alexandrium monilatum bloom in Chesapeake Bay. Photo credit: W. Vogelbein/VIMS.

TOXIC SHELLFISH

SHELLFISH FROM THIS AREA ARE UNSAFE TO EAT DUE TO PARALYTIC SHELLFISH TOXIN.

DO NOT EAT CLAMS, OYSTERS, MUSSELS OR SCALLOPS

Sign warns beachgoers about the risks of harvesting shellfish.



Deadly Myths

- **Shellfish are safe to eat during months containing the letter “r”.** Actually, there have been PSP cases every month of the year in Alaska.
- **If you’re tongue doesn’t tingle after sucking on a small piece of shellfish, it’s safe.** Symptoms, even serious ones, can take hours to develop.
- **If the water is clear, there is no danger of “red tide” poisoning.** Many harmful algal blooms are colorless. Some shellfish species can also retain their toxins for months after a bloom.
- **If wildlife has been eating the shellfish, it must be safe.** Every animal has a different tolerance to PSP toxins. Do not assume that you have the same tolerance as a sea otter.

What are the risks and how can I reduce them?

While there is no way to cook or freeze the toxin that causes PSP to make it inactive, there are other ways to reduce your risk of exposure. First, contact your local Tribal government for the latest plankton and toxin results from your community’s monitored beach. The SEATOR communities provide advisories and data *only*; it is your responsibility to determine if it is safe for you to harvest! Secondly, get your shellfish tested directly for toxins at the Sitka Tribe’s Environmental Lab if you are harvesting from an unmonitored site. Third, know that shellfish toxins are often highly localized. Do not assume that your favorite beach is safe simply because a nearby one has been tested. Finally, reduce your risk of PSP from less common sources like crabs and shrimp by removing the viscera before cooking them.



Testing Information

Contact Michael Jamros, the Sitka Tribe of Alaska’s Environmental Lab Manager, for information on testing availability and protocols. Phone: 966-9650 Email: seator@sitkatribe-nsn.gov.