

For more information see the following  
sources:

State Department of Health Biotoxin Hotline:

1-800-562-5632

Online beach closure bulletin-

<http://ww4.doh.wa.gov/gis/mogifs/biotoxin.htm>

**Shellfish Safety**

<http://www.doh.wa.gov/CommunityandEnvironment/Shellfish>

**Federal Food and Drug Administration Bad Bug  
Book**

<http://www.fda.gov/Food/FoodborneIllnessContaminants/CausesOfIllnessBadBugBook>

**For Questions Regarding Harvesting Shellfish Call**

Nisqually Natural Resources Department:

**(360)438-8687**

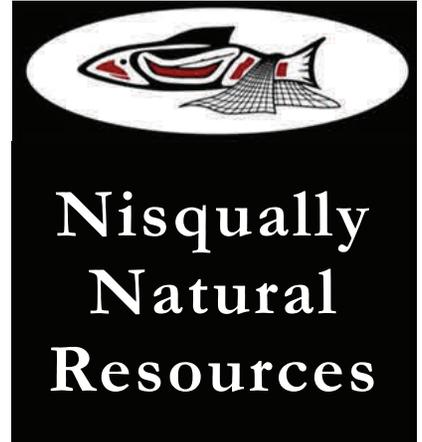


**Nisqually Indian Tribe**

Department of Natural Resources Shellfish Program

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**SHELLFISH  
HARVESTING:  
HOW TO DO IT  
SAFELY.**



# Vibrio

*Vibrio parahaemolyticus* is a naturally occurring bacteria that is present in Puget Sound year round. In the summer months a combination of warm temperatures, sunlight and nutrient rich waters can cause drastic increases in its population. Certain strains of *Vibrio parahaemolyticus* can cause illness in humans (*Vibriosis*).

- **What causes *vibriosis*?** *Vibriosis* is usually caused by eating raw or under cooked shellfish. Since oysters are commonly consumed raw they are the most common cause. However, cases have been reported from shrimp, clams and crab as well.
- **What are the symptoms?** The symptoms are very similar to a flu such as fever, chills, diarrhea and vomiting.
- **How do I avoid getting *Vibriosis*?** Use good harvesting practices when harvesting shellfish and fully cook your shellfish during the summer months..
- **If I get sick, what should I do?** Fortunately, *Vibriosis* is not usually deadly. Keep well hydrated and report the case to your doctor so they can monitor your health.



# Biotoxins

There are several different kinds of biotoxins, the most commonly occurring one in Puget Sound is Paralytic Shellfish Poisoning (PSP), but others such as Diarrhetic Shellfish poisoning (DSP), and Amnesic Shellfish Poisoning (ASP) have been noted as well.

- **What are biotoxins?** Biotoxins are poisons created by certain kinds of phytoplankton that are naturally present in marine waters. Certain water conditions, however, can create rapid plankton reproduction which creates a “bloom”.
- **How does the biotoxin get into the shellfish?** Bivalves (such as clams, mussels and oysters) are filter feeders. They ingest any particles in the water (good or bad). When shellfish eat toxin producing algae, the toxin remains in their gut. Biotoxins can accumulate in shellfish to levels that can cause illness or death in humans and other mammals that eat them, especially when a bloom is occurring.
- **What are the symptoms of Biotoxin poisoning?** Symptoms will vary with the type of poisoning. Symptoms for PSP (the most commonly occurring biotoxin) include tingling lips and tongue, loss of control of limbs ,and in certain situations a sense of floating and nausea.
- **How do I avoid getting biotoxin poisoning?** Unfortunately biotoxins do not cook or freeze out of shellfish. We need to wait for the shellfish to clear the toxin naturally. **Always** check the state’s biotoxin hotline (1-800-562-5632) or with the Nisqually Natural Resources Department (360-438-8687) to ensure that the beach you intend to harvest is not impacted
- **If I get sick what should I do?** Go to the doctor immediately. Consumption of PSP contaminated shellfish can lead to death within two hours of consumption.

# How do I stay safe?

## Use good harvesting practices:

- Make sure the beach your are harvesting from is clear of any pollution or biotoxin closures.
- Always harvest shellfish that have just been exposed by the outgoing tide, or directly from the water.
- Keep your shellfish cool and place them on ice as soon as possible
- Never let your shellfish sit in water (or melted ice).
- If the shellfish does not close when you tap it or the shell is broken, do not eat it.

## Use good food preparation practices:

- You can not cook or freeze shellfish to make them biotoxin free. **Always** check the state’s biotoxin hotline (1-800-562-5632) or with the Nisqually Natural Resources Department (360-438-8687) to ensure that the beach you intend to harvest from is not impacted.
- Wash the outside of your shellfish with clean water
- Avoid cross-contamination, transfer cooked shellfish to clean dishes only.
- Avoid consuming raw shellfish during summer months. Cook them to a temperature of 145 °F for at least 15 seconds.