

# Toxic



# Shellfish



## How to protect yourself from dangerous marine toxins

In our waters, there are some species of phytoplankton (tiny algae) that produce powerful toxins. When temperatures warm and other surrounding conditions become good for them, they multiply very fast, or 'bloom'. The toxins build up in clams and other shellfish as they eat these plankton. Eating toxic shellfish can make you very sick or even kill you.

**Please take the following precautions:**


**1**

**USE SAFETY MAPS, APPS, PHONE #'S**

We can help you learn how to use the BC Centre for Disease Control or DFO shellfish maps, or the "Can U Dig It" app.

**2**

**CHECK OUR LATEST WATCH NOTICE**



and Tla'amin flyers

**3**

**CONTACT US**

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### Watch for symptoms of PSP

Paralytic Shellfish Poisoning

Symptoms can start quickly, as little as 30 minutes after eating, but delays up to 12 hours have been reported. Spreading tingling and numbness. Headache, dizziness, nausea, vomiting. In severe cases, choking sensation, loss of control of arms and legs, muscle paralysis, difficulty breathing. Death occurs when muscles used for breathing are paralyzed.

### Watch for symptoms of ASP

Amnesic Shellfish Poisoning

Within 24 hrs, diarrhea, nausea, abdominal cramps, vomiting, headache. Within 48 hrs, confusion, disorientation, seizures, coma, memory loss. Long-term consumption of shellfish with lower levels of this toxin has also been linked to memory loss.

### Watch for symptoms of DSP

Diarrhetic Shellfish Poisoning

Symptoms can begin between 30 minutes and 15 hours after eating. Diarrhea, nausea, abdominal cramps, vomiting, headache.

**Shellfish Map**  
See URLs below in Safe Harvest Resources

**Can U Dig It**  
Free Safe Shellfish Harvesting App for BC

**Where can I harvest?**  
Select one of the seven Pacific coastlines of BC where there is not currently a listed shellfish advisory. Make sure to check if you are not in a restricted area!

- No active shellfish closures for:
- BUTTER CLAM
- GEORGINA CLAM
- HORSE CLAM
- LITTLENECK CLAM
- MANILA CLAM
- NUTTALLS COCKLE
- PACIFIC RAZOR CLAM
- SOFTSHELL CLAM
- PACIFIC OYSTER
- BAY SCALLOP
- PINK SCALLOP
- PURPLE HINGE ROCK SCALLOP
- SPINY SCALLOP
- WEATHERSHINE SCALLOP
- NORTHERN MOON SNAIL

Looks like it's not safe to harvest clams here today.

Thanks! Let's use the Can U Dig It app to find a safe place to dig.

**Seek immediate medical care [local #?], call 9-1-1, or call BC Poison Control 1-800-5678911 if you are experiencing PSP, ASP or DSP symptoms after eating shellfish.**



Learn more with the WATCH Project  
<https://www.fnha.ca/what-we-do/environmental-health/watch-project>



First Nations Health Authority  
Health through wellness

# What you need to know about Shellfish Toxins ("red tide")

Some harvest teachings are less reliable in a changing climate



**"The water is clear, so it's safe to harvest."**

Not all toxic blooms cause a 'red' tide. They may be other colours or colourless.



**"The water is red, so it's unsafe to harvest."**

Reddish water may be caused by other, non-toxic organisms.



**"When the bloom is gone, it's safe to harvest."**

There may be toxins present in shellfish even after the bloom is gone. Some species, like butter clams and razor clams, may hold on to toxins longer than other shellfish (up to 2 years for butter clams!).

This is why a harvest area can be closed for one species but not another.



**"It's safe to harvest in the months with an 'r' in them."**

Harmful phytoplankton are now found in our waters in every month of the year.



**"If the birds (or other wildlife) eat the shellfish, so can we."**

Different species tolerate toxins in different ways. You may not respond to a toxin in the same way as another animal.

Note that many animals have become ill or died from eating prey that contain toxins.



**You can't tell if a shellfish is safe to eat by how it looks or smells.**

This is why we look for other ways to judge if shellfish are safe to eat, such as whether toxic producing phytoplankton are in the water, or testing water or shellfish tissue in a lab.



**Shellfish toxins may be very local or widespread.**

One beach can have toxic shellfish, while a nearby beach is clean. Some beaches can have areas that are safe and unsafe.



With consistent, long-term monitoring and testing we can better understand what factors make certain areas more likely to grow or gather toxic phytoplankton.



**Other seafood may contain toxins too.**

While clams and other bivalves are the seafood species most likely to have dangerous levels of toxin, other animals can build up toxins too. For example, crabs that eat toxic shellfish may have high levels of toxin in their guts. Marine mammals have become sick from consuming plankton-eating fish such as herring. *Ask WATCH about the risks of eating each species.*

# What you need to know about Shellfish Toxins ("red tide")

Reduce your risk when preparing & eating shellfish



**Cooking and freezing gets rid of the toxins.**

**No! You cannot cook or freeze the toxins out of the shellfish.**

In fact, cooking can sometimes move toxins from parts that you don't usually eat to the parts you do eat. Boiling crabs whole can transfer toxin from the guts to the meat, for example.



**Are there food preparation practices that reduce my risk of eating toxins?**

While it is good practice to remove siphons, neck and gills from clams and other bivalves (as these tend to concentrate toxins), the meat can still be extremely toxic.

Clean the viscera/guts out of crabs, prawns and shrimp before cooking.

Discard these so pets and other animals can't eat them.



**"If your tongue doesn't tingle after sucking on a small piece, it's safe."**

**No! Symptoms may take many hours to develop, even in serious cases.**



Remember, **there are no medications to neutralize these toxins**, so harvesting from monitored and tested areas is the best way to manage risk. If you are experiencing symptoms, seek immediate medical care to help manage your symptoms. Call BC Poison Control: 1-800-5678911, or call 9-1-1. Tell them you have eaten seafood, what kind and how much.



Not all symptoms associated with eating shellfish are caused by toxins like PSP, ASP or DSP. You may be allergic to shellfish, which requires immediate medical attention. You may become ill from eating shellfish contaminated with *Vibrio* or other bacteria, or viruses such as Norovirus. It is important to notify your health care providers that you are (or have been) sick.

## Safe Harvest Resources

- BC Centre for Disease Control shellfish harvest map <http://www.bccdc.ca/health-professionals/professional-resources/shellfish-harvesting-sites-status-map>
- Can You Dig It <https://www.qars.ngo/cudi>
- DFO shellfish harvest map - SHELLI - [https://gisp.dfo-mpo.gc.ca/Html5Viewer/Index.html?viewer=CSSP\\_Public\\_En\\_Site&locale=en](https://gisp.dfo-mpo.gc.ca/Html5Viewer/Index.html?viewer=CSSP_Public_En_Site&locale=en)
- Call DFO 1-866-431-3474 for openings and closures of shellfish harvest areas
- WATCH Project Web <https://www.fnha.ca/what-we-do/environmental-health/watch-project>
- WATCH Email [watch-project@fnha.ca](mailto:watch-project@fnha.ca)