



Shellfish wariness

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Bivalve shellfish are a wonderful

and healthy source of protein low in fat and cholesterol and high in

essential minerals, to say nothing of delicious. Bivalves are, of course, hinged two-part shellfish such as oysters, clams, scallops and mussels. However, recent cases of illness in BC and Washington state remind us to be cautious at the same time. Two particular concerns are *Vibrio parahaemolyticus* (Vp) and paralytic shellfish poisoning (PSP).

While the first is very unpleasant, the second can kill in under 12 hours.

In recent weeks we have had five reported cases of *Vibrio parahaemolyticus*. Vp is a bacterium in shellfish that is in the same family as those that cause cholera. It causes gastroenteritis with symptoms including abdominal cramps, watery diarrhea, nausea and vomiting, headache, fever and chills. These show up 12 to 24 hours after infection but can appear within four hours and up to 90 days after eating a contaminated food. They last about three days and will go away on their own. While there is no real treatment, it's a good idea to drink plenty of liquids to replace fluids lost through diarrhea.

The concern with Vp is for people in high-risk categories. These include anyone with weakened immune system as they will experience more severe symptoms. Also, people with liver disease or chronic alcoholism are 80 times more likely to become infected after eating contaminated shellfish.

Properly cooked shellfish protects against Vp. Not so with PSP.

As unpleasant as *Vibrio parahaemolyticus* can be, it remains far less serious an illness than paralytic shellfish poisoning, which is associated with so-called 'red tide'. Under specific marine environmental conditions, certain types of microscopic algae can multiply rapidly causing a "bloom" in population. This is commonly referred to as a red tide. These blooms are most common in the spring and summer

months, but they can occur at other times of the year as well.

Paralytic shellfish poisoning is an illness caused by a group of marine biotoxins (natural toxins that can accumulate in fish and shellfish). These accumulate in filter-feeding bivalve shellfish such as clams, mussels, scallops and oysters; they can also show up in crustaceans such as crabs and lobsters.

Unlike the unpleasant symptoms of Vp, PSP usually begins within 5 to 30 minutes after consumption. First comes a tingling or numbness around the lips which gradually spreads to the face and neck. Other symptoms are a prickly sensation in the fingertips and toes, headache and dizziness. In more severe cases, there may also be incoherent speech, a prickly sensation in the arms and legs, stiffness and non-coordination of limbs, weakness, rapid pulse, respiratory difficulty, salivation or temporary blindness. Nausea and vomiting may also occur.

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The next stage, in the most severe cases, is muscle paralysis, respiratory paralysis, and death. This may take only 12 hours. There is no known antidote for PSP.

Because the biotoxins of PSP are heat-stable, cooking will not do anything to protect you. Instead, the key is avoiding it entirely. That means not harvesting or consuming any shellfish from areas closed by red tide. To find out where red tide closures are, contact your local Fisheries & Oceans office, or visit their website at www.pac.dfo-mpo.gc.ca.

Remember, avoid Vp by cooking your bivalves properly. And for PSP, cooking won't do it.