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Are You Eating Shellfish Contaminated With This Paralysis-Causing Toxin?

Analysis by Dr. Joseph Mercola | June 24, 2024

STORY AT-A-GLANCE

- The U.S. Food and Drug Administration (FDA) recently released an advisory about shellfish harvested from Oregon and Washington, as they were found to have elevated levels of paralytic shellfish toxins (PSTs)
- Saxitoxin, a naturally occurring neurotoxin produced by algae, can be harmful to human health as it damages nerve tissue
- Symptoms of paralytic shellfish poisoning (PSP) include numbness of the mouth and lips, vomiting, diarrhea, dizziness and nausea, dissociation and respiratory paralysis
- Apart from toxin-contaminated shellfish, radioactive fish may also soon find its way onto your dinner plate, as the U.S. government recently endorsed the consumption of seafood harvested off the coast of Fukushima, Japan

In a perfect world, fish and other types of seafood are some of the healthiest foods you can consume, as they offer omega-3s and other beneficial nutrients. But with most of our waterways and oceans now heavily polluted with toxic wastes, these once-nutritious foods can become ticking time bombs that can land you in the hospital.

A recent advisory[1] about Pacific Northwest shellfish is a grim example of how toxic some types of seafood can be. According to the U.S. Food and Drug Administration (FDA), shellfish harvested from Oregon and Washington were found to be contaminated with a dangerous neurotoxin that can lead to severe symptoms, including paralysis.

Paralysis-Causing Toxin Found in Pacific Northwest Shellfish

According to the FDA website, on May 30, 2024, the Oregon Agriculture Department and the Washington Health Department sent out an advisory about the recall of oysters and bay clams harvested from their waters. Apparently, the shellfish were found to have elevated levels of paralytic shellfish toxins (PSTs),[2] which can lead to paralytic shellfish poisoning (PSP).[3]

> *"Paralytic shellfish poisoning, or PSP, happens after someone eats shellfish contaminated with saxitoxin, which can cause gastrointestinal distress, neurological symptoms and a sensation of 'floating' or disassociation,"* NBC News reports.

Oysters and bay clams that were harvested from Northern Oregon (specifically in Netarts and Tillamook bays) since May 28 are affected. Shellfish harvested since May 26 from around Willapa Bay in southern Washington may also be contaminated with this dangerous toxin.[4]

As of June 11, 2024, at least 31 people in Oregon have fallen ill after eating the shellfish.[5] These contaminated shellfish are also circulating, as they were bought by consumers and distributed to restaurants and food retailers, not only in the two aforementioned states, but also in Arizona, California, Colorado, Hawaii, Nevada and New York.[6]

What Caused This Widespread Shellfish Contamination?

Saxitoxin is a naturally occurring neurotoxin produced by algae, mainly freshwater cyanobacteria and marine dinoflagellates. Matthew Hunter, shellfish program manager for the Oregon Department of Fish and Wildlife, explained that the unprecedented levels of saxitoxin in the Pacific Northwest occurred because of a massive algal bloom along the coast of Oregon.[7]

According to the National Oceanic and Atmospheric Administration, harmful algal blooms (HABs) can occur naturally; however, disruptions in the ecosystem brought on by human activities play a role not only in their frequency but also their intensity.[8] The toxin levels don't immediately subside — in fact it may take weeks, months or even up to a year for the contamination to subside, as noted by Oregon officials.[9]

> *"Oregon authorities have closed the state's entire coastline to the harvesting of mussels, razor clams and bay clams. Agriculture officials have also closed three bays, including those named in the FDA advisory, to commercial oyster harvesting.*
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> *Officials in neighboring Washington have also closed the state's Pacific coastline to the harvesting of shellfish, including mussels, clams, scallops and oysters, a shellfish safety map produced by the Washington State Department of Health shows,"* ABC News reports.[10]

Symptoms of Paralytic Shellfish Poisoning

Saxitoxin can be harmful to human health, as it damages nerve tissue.[11] What makes it even more dangerous is that the contaminated shellfish can appear perfectly safe and normal — they look, smell and taste just as other clean shellfish products do.

The FDA also warns that contaminated shellfish can retain saxitoxin for different periods of time. Some shellfish may eliminate this toxin rapidly, while others are slower to remove it from their system. This lengthens the period of time they can be toxic to humans.[12]

What's more, PSP toxins cannot be killed or eliminated by cooking or freezing. Once you ingest the toxin, gastrointestinal distress and neurological symptoms may arise within minutes to a couple of hours. The symptoms, which may be mild or severe, depending on how much toxin you've ingested, and include:[13,14]

Numbness of the mouth and lips	Vomiting

Diarrhea	Shortness of breath
Irregular heartbeat (in severe cases)	A "pins and needles" sensation (numbness in the arms and legs)
Dizziness and nausea	Loss of muscle coordination
Feeling as if you're floating (dissociation)	Respiratory paralysis

At present, there is no antidote for saxitoxin poisoning.[15] Medical treatment requires giving fluid and providing respiratory support.[16] The good news is that if you survive 24 hours with the toxin, the prognosis is usually positive, and the toxin will not have lasting effects.

In severe cases, though, poisoning can be serious, and will require mechanical ventilation to help the patient breathe.[17] Saxitoxin poisoning can be fatal and can happen in as little as two hours. It occurs because of asphyxiation, as the muscles used for breathing can be paralyzed.[18] Because of the range in severity of its symptoms, the FDA advises consulting with a health care provider if you develop the symptoms mentioned above.[19]

Radioactive Fish for Dinner, Anyone?

Toxin-contaminated shellfish is just one of the many problems plaguing your seafood options. Soon, you may even find radioactive fish in your supermarkets, as the U.S. government recently endorsed the consumption of seafood harvested off the coast of Fukushima, Japan,[20] which experienced a major nuclear accident after the 2011 Tohoku earthquake and tsunami.

Last year, the Fukushima Daiichi Nuclear Power Plant started discharging nuclear wastewater, which was used to cool down the nuclear reactors, into the ocean,[21] exposing seafood and marine life to radioactive substances. Many fishing groups have opposed these wastewater discharges, which are expected to continue for decades.[22]

Neighboring countries like China and South Korea, and even Russia, have also expressed concerns about radioactive contamination of marine life and imposed a ban on Japanese seafood imports as a precaution.[23] However, the Japanese government claims their seafood is safe, even going as far as having officials eating Fukushima fish on video and declaring it "safe and delicious."[24]

The U.S. government supports these claims; in September 2023, officials even attended a "sushi and sake" event at Capitol Hill, where around 40 members of the House of Representatives sampled fresh Japanese fish, such as flounder and seabass, from Fukushima.[25]

This was followed a month later by an announcement from U.S. Ambassador to Japan Rahm Emanuel, saying that the U.S. military would buy Japanese seafood in bulk and feed it to service members stationed at military bases in Japan. According to an article in The Defender, Emanuel says they will start with a metric ton of scallops, and then eventually expand to all types of seafood.[26]

But to bring in potentially radioactive seafood in our food supply is like playing Russian roulette with people's health. What's worse, the effects can build up gradually. You may not see any symptoms right away, but they can manifest years later. Hongkong's Centre for Food Safety reports:[27]

> *"According to a report issued by Tokyo Electric Power Company Holdings (TEPCO) earlier, a fish sampled from the port area of the FNPS [Fukushima nuclear power station] was found to contain 18 times the Codex guideline level of the radioactive substance Caesium.*
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> *Caesium can be taken into the body by eating food or drinking water. After ingestion, it is absorbed into the bloodstream, distributes throughout the body, and tends to concentrate in muscles. The fish, if consumed, may pose a risk to health and increase the likelihood of inducing cancer."*

Farmed Fish — Another Dangerous Type of Seafood to Avoid

This issue of radioactive poisons from seafood has caused many to either give up eating fish or opt for farmed fish, believing it's a safer choice. However, you may be swapping one problem for something that's even more dangerous. Choosing farmed fish to avoid radiation is not going to do your health any favors. You may avoid nuclear radiation, but you're getting far more of other toxins instead.

Aside from being one of the least sustainable approaches to farming, fish farming also causes many environmental problems and poses unique risks to your well-being, maybe even far worse than radioactive contamination. In fact, fish farms have been called the "CAFOs of the sea," as they raise many of the same concerns about chemicals and pollutants associated with feedlot cattle and factory chicken farms.

Unlike wild-caught fish, which feed on natural organisms and thrive in its natural habitat, farmed fish are raised on a diet of processed, high-fat, high-protein feed that can include everything from genetically engineered (GE) soybeans and pesticides, to polychlorinated biphenyls (PCBs) and dioxins, to antibiotics.[28]

Salmon is one of the most widely sold types of factory farm fish, and salmon factory farms are now the fastest-growing type of food production system in the world.[29] However, farmed salmon contain far more toxins than wild salmon, mainly due to their elevated fat content.

Since toxins from fish feed accumulate in salmon fat, farmed salmon generally has higher levels of contaminants than wild salmon. For example, a study found that among 700 salmon samples collected from around the world, farmed salmon have eight times higher levels of PCB concentration than wild salmon.[30]

How to Find Safe Seafood

With most of our waterways and oceans heavily polluted with neurotoxins, radioactive poisons, and heavy metals like mercury, dioxins and PCBs, it can be a challenge to find uncontaminated fish these days. The key is to be a smart shopper. Be selective in the

types of fish you consume, focusing on those high in healthy fats and low in contaminants.

I strongly recommend buying wild fish, and wild-caught Alaskan sockeye salmon, in my opinion, is one of the absolute best, both in terms of nutrition and potential contamination. Aside from being rich in omega-3 fats DHA and EPA, wild-caught Alaskan salmon has a short life cycle, meaning it has a lower risk of accumulating toxins. It also doesn't feed on other already contaminated fish, further reducing the risk of contamination.

Other great choices are small, cold-water, fatty fish like anchovies, sardines, mackerel and herring. A general guideline is the closer to the bottom of the food chain the fish is, the less contamination it will accumulate.

If you still want to take precautions, you can take chlorella tablets every time you eat fish and other seafood. Chlorella is a heavy metal chelator and can bind to mercury and other toxins before your body can absorb it, allowing these harmful substances to be safely excreted in your stool instead. In addition, it's best to avoid larger fish, as they tend to live longer and have higher contamination levels. These include:

Tuna (tuna steaks, sushi, and canned)	Sea bass and largemouth bass	Marlin
Halibut	Pike	Walleye
Shark	Sword fish	White croaker

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