



PUFFERFISH PROCESSING

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Abstract

The Food and Drug Administration (FDA) is advising consumers only to eat pufferfish (also known as fugu, bok, blowfish, globefish, swellfish, balloonfish, or sea squab) from two known safe sources. The risks associated with ingesting Tetrodotoxin due to the neurological damage that can produce potential death have been well documented. For these reasons, the sale and consumption of puffer fish must be controlled. Pufferfish have different toxin levels on species basis. There are around 120 known species of pufferfish, the second most poisonous creature on the planet after the Golden Poison Frog. The pufferfish is found in tropical waters worldwide, but they rarely go into the cooler waters. If a fisherman catches a pufferfish, they will never touch the spikes as they are highly toxic to humans and animals. Either the toxin is not found or the low level found species can be consumed. Despite the pufferfish having such a deadly venom, there are some species of pufferfish whose meat is eaten in Japan and Korea as a local delicacy. Special chefs are trained to cut the fish so that the fish does not poison the consumer. Other species of pufferfish produce and release a toxin into their organs when they die to harm the thing that ate them. According to Japanese food safety standards, puffer fish with a toxicity level below 10 MU/g are considered safe for human consumption. In addition, puffer fish consumption is allowed only if it is prepared and cooked by a highly trained chef who has passed the necessary examination and has obtained a license to cook puffer fish. Pufferfish must be cleaned and prepared properly so the organs containing the toxins are carefully removed and do not cross-contaminate the flesh of the fish. These toxins cannot be destroyed by cooking or freezing. Fugu (foo-goo) is a dish made from the Pufferfish (blowfish) or Porcupine fish that has achieved an almost mythological status in western cuisine. It has become synonymous with risk taking, a culinary Russian roulette, due to that, if incorrectly prepared, a diner risks death from even a single bite due to a potent neurotoxin found in the fish. Puffer fish liver oil can be extracted and used as a pharmaceutical drug.

Keywords: Pufferfish, fugu, liver oil, tetrodotoxin