

A Delicacy to Die For



Fugu, or **puffer** fish, is a famous and exotic food in Japan. It can also be deadly. People who eat the liver, skin, or some other body parts of the fish swallow a poison called tetrodotoxin, which stops human nerve cells from working. They risk dying—just like a famous Japanese actor named Mitsuguro Bando. In 1975, he spent an evening with friends eating fugu liver, because he enjoyed the tingling feeling it created in his mouth. But that tingling was caused by the poison. Soon, Bando couldn't move his arms or legs. Then he had trouble breathing. Eight hours later, he was dead.



You can still eat fugu in Japan in restaurants where **chefs** prepare beautiful plates of thinly sliced raw fugu for \$500. Fortunately, nowadays, fugu chefs must have training and a special license. They have to pass an exam: in 20 minutes, they must divide a fish into edible and toxic parts, label the parts with plastic tags (black for edible, red for toxic), make it into **sashimi**, and prepare a beautiful arrangement on a plate. Last year, 900 candidates took the exam, but only 63 percent of them passed. They are not allowed to serve the liver or other toxic parts.

Scientists are not sure about the origin of the fugu's poison. Tamao Noguchi, a researcher at Nagasaki University, believes that the secret is in the fugu's diet. Puffer fish, he explains, take in toxins when they eat smaller animals like worms or shellfish that contain toxic bacteria. In experiments, Noguchi raised several fugu in his laboratory and fed them a special diet. Their bodies did not contain the toxin.

Noguchi hopes that his research will make fugu liver available in restaurants in the future. "It's a great delicacy," he says. "Once you eat it, you cannot stop." Japan banned the sale of fugu liver in 1983, because hundreds of people had died from eating just a little too much of it or eating it by mistake. If Noguchi can produce nontoxic fugu, the laws could be changed.

But would nontoxic fugu really be the same? Some people think the taste would be just as delicious. But Noguchi says it would actually be a sad day for the fish. "After all," he says, "a fugu without its poison is like a **samurai** without his **sword**."