

Non Infectious Food-borne Illnesses

Etiology	Incubation Period	Signs and Symptoms	Duration of Illness	Associated Foods	Laboratory Testing	Treatment
Antimony	5 min-8 hrs usually < 1 hr	Vomiting, metallic taste.	Usually self-limited	Metallic container.	Identification of metal in beverage or food.	Supportive care.
Arsenic	Few hrs	Vomiting, colic, diarrhea	Several days	Contaminated food.	Urine. May cause eosinophilia.	Gastric lavage, BAL (dimercaprol).
Cadmium	5 min-8 hrs usually < 1 hr	Nausea, vomiting, myalgia, increase in salivation, stomach pain.	Usually self-limited	Seafood, oysters, clams, lobster, grains, peanuts.	Identification of metal in food,	Supportive care.
Ciguatera fish poisoning (ciguatera toxin).	2- 6 hrs	GI; abdominal pain, nausea, vomiting, diarrhea	Days to weeks to months	A variety of large reef fish. Grouper, red snapper, amberjack, and barracuda (most common).	Radioassay for toxin in fish or a consistent history.	Supportive care. IV mannitol. Children more vulnerable.
	3 hrs	Neurologic: paresthesias, reversal of hot or cold, pain, weakness.				
	2-5 days	Cardiovascular: bradycardia, hypotension, increase in T wave abnormalities.				
Copper	5 min-8 hrs usually < 1 hr	Nausea, vomiting, blue or green vomitus.	Usually self-limited	Metallic container.	Identification of metal in beverage or food.	Supportive care.

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Mercury	1 week or longer	Numbness, weakness of legs, spastic paralysis, impaired vision, blindness, coma. Pregnant women and the developing fetus are especially vulnerable.	May be protracted	Fish exposed to organic mercury, grains treated with mercury fungicides.	Analysis of blood, hair.	Supportive care.
Mushroom toxins, short-acting (muscinol, muscarine, psilocybin, coprius artemetaris, ibotenic acid)	< 2 hrs	Vomiting, diarrhea, confusion, visual disturbance, salivation, diaphoresis, hallucinations, disulfiram-Re reaction, confusion, visual disturbance.	Self-limited	Wild mushrooms (cooking may not destroy these toxins).	Typical syndrome and mushroom identified or demonstration of the toxin.	Supportive care.
Mushroom toxin, long-acting (amanital) the toxin.	4-8 hrs diarrhea; 24-48 hrs	Diarrhea, abdominal cramps, leading to hepatic and renal failure liver failure	Often fatal	Mushrooms	Typical syndrome and mushroom identified and/or demonstration of	Supportive care; life-threatening, may need life support.
Nitrite poisoning	1-2 hrs	Nausea, vomiting, cyanosis, headache, dizziness, weakness, loss of consciousness, chocolate-brown colored blood.	Usually self-limited	Cured meats, any contaminated foods, spinach exposed to excessive nitrification.	Analysis of the food, blood.	Supportive care, methylene blue.
Pesticides (organophosphates or carbamates)	Few min to few hrs	Nausea, vomiting, abdominal cramps, diarrhea, headache, nervousness, blurred vision, twitching, convulsions.	Usually self-limited	Any contaminated food.	Analysis of the food, blood.	Atropine.

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Puffer fish (tetrodotoxin)	< 30 min	Paresthesias, vomiting, diarrhea, abdominal pain, ascending paralysis, respiratory failure.	Death usually in 4-6 hrs	Puffer fish.	Detection of tetrodotoxin in fish	Life-threatening, may need respiratory support.
Scombroid (histamine)	1 min- 3 hrs	Flushing, rash, burning sensation of skin, mouth and throat, dizziness, urticaria, paresthesias.	3-6 hrs	Fish: bluefin, tuna, skipjack, mackerel, marlin, and mahi mahi.	Demonstration of histamine in food or clinical diagnosis.	Supportive care, antihistamines.
Shellfish toxins (diarrheic, neurotoxic, amnesic)	Diarrheic shellfish poisoning (DSP) - 30 min to 2 hrs	Nausea, vomiting, diarrhea, and abdominal pain accompanied by chills, headache, and fever.	Hrs to 2-3 days	A variety of shellfish, primarily mussels, oysters, scallops, and shellfish from the Florida coast and the Gulf of Mexico.	Detection of the toxin in shellfish, high pressure liquid chromatography,	Supportive care, generally self-limiting. Elderly are especially sensitive to ASP.
	Neurotoxic shellfish poisoning (NSP) – few min to hrs	Tingling and numbness of lips, tongue, and throat, muscular aches, dizziness, reversal of the sensations of hot and cold, diarrhea, and vomiting.				
	Amnesiac shellfish poisoning (ASP) - 24-48 hrs	Vomiting, diarrhea, abdominal pain and neurological problems such as confusion, memory loss, disorientation, seizure, coma.				

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Shellfish toxins (paralytic Shellfish poisoning)	30 min - 3 hrs	Diarrhea, nausea, vomiting leading to paresthesias of mouth, lips, weakness, dysphasia, dysphonia, respiratory paralysis.	Days	Scallops, mussels, clams, cockles.	Detection of toxin in food or water where fish are located; high pressure liquid chromatography.	Life-threatening, may need respiratory support.
Sodium fluoride	Few minutes to 2 hrs.	Salty or soapy taste, numbness of mouth, vomiting, diarrhea, dilated pupils, spasms, pallor, shock, collapse.	Usually self-limited.	Dry foods (such as dry milk, flour, baking powder, cake mixes) contaminated with sodium fluoride-containing insecticides and rodenticides.	Testing of vomitus or gastric washings. Analysis of the food.	Supportive care.
Thallium	Few hrs	Nausea, vomiting, diarrhea, painful paresthesias, motor polyneuropathy, hair loss.	Several days.	Contaminated food.	Urine, hair.	Supportive care.
Tin	5 min - 8 hrs usually < 1 hr	Nausea, vomiting, diarrhea.	Usually self-limited	Metallic container.	Analysis of the food.	Supportive care.
Vomotoxin	Few min to 3 hrs	Nausea, headache, abdominal pain, vomiting	Usually self-limited	Grains, such as wheat, corn, barley.	Analysis of the food.	Supportive care.
Zinc	Few hrs	Stomach cramps, nausea, vomiting, diarrhea, myalgias.	Usually self-limited	Metallic container.	Analysis of the food, blood and feces, saliva or urine.	Supportive care.