

FOODBORNE ILLNESS INFORMATION TABLE

Disease	Causative Agent	Incubation Period	Duration of Illness	Symptoms	Reservoir	Foods Implicated	Spore Former	Prevention
<u>BACTERIAL FOODBORNE ILLNESSES</u>								
<i>Intoxications</i>								
Staphylococcal intoxication	<i>Staphylococcus aureus</i> toxin	1-8 hours (usually 2-4 hours)	1-2 days	Vomiting(projectile),diarrhea (explosive), nausea, dehydration	Human beings; also animals	Ham and other meats, dairy products, custards, salads(potato), cream-filled desserts.	No	Refrigerate foods, cool prepared foods rapidly. Avoid touching food with bare hands. Practice proper and frequent handwashing.
Botulism	<i>Clostridium botulinum</i> toxin	12-36 hours	Several days to a year	Vomiting & diarrhea, vertigo, blurred vision, paralysis, death	Soil, mud, marine sediment, intestinal tract of animals including fish	Low acid canned or vacuum packed foods. Chili pepper water, baked potatoes.	Yes	Refrigerate foods. Rapidly cool leftovers. Do not use bulging & severely dented cans.
<i>Infections</i>								
Salmonellosis	<i>Salmonella</i>	6-72 hours (usually 12-36 hours)	2-3 days	Fever, headache, abdominal pain, diarrhea, nausea, and sometimes vomiting	Domestic and wild animals: also human beings (intestinal tract),especially as carriers	Poultry and poultry salads, pork, meat and meat products, milk, shell eggs, egg custards and sauces, and other protein foods	No	Avoid cross contamination, refrigerate foods, cool foods rapidly, practice good personal hygiene, cook foods thoroughly, reheat foods to at least 165°F.
Shigellosis	<i>Shigella</i>	1-8 days (usually 1-3 days)	Several days to weeks (average 4-7 days)	Diarrhea(often bloody with mucus),fever, abdominal pain	Human beings (intestinal tract)	Salads(potato, tuna, shrimp, turkey, fruit, macaroni), lettuce, moist and mixed foods	No	Frequent & proper handwashing & sanitation. Minimize hand contact. Prevent cross contamination.
Listeriosis	<i>Listeria monocytogenes</i>	3-70 days (usually 21 days)	1 day-3 wks, high fatality in the immuno-compromised	Mild flu-like symptoms in healthy adults, stillbirths in pregnant women	Soil, water, mud, domestic and wild animals, fowl, and human beings	Unpasteurized milk and cheese, seafood, vegetables, poultry meats,prepared,chilled, ready-to-eat foods	No	Cook foods to proper temperatures, avoid cross contamination. Clean and sanitize surfaces. Take note of maximum refrigerated storage periods.
Campylobacteriosis	<i>Campylobacter jejuni</i>	1-10 days (usually 2-5 days)	2-5 days	Diarrhea(often bloody with mucus),fever, nausea, headache	Poultry, puppies, kittens, domestic and wild animals such as cattle	Poultry, pork, beef, and lamb,unpasteurized milk and dairy products	No	Cook foods thoroughly, avoid cross contamination, frequent and proper handwashing.
Vibrio Parahaemolyticus gastroenteritis	<i>Vibrio parahaemolyticus</i>	4-30 hours (usually 12-24 hours)	1-7 days	Watery diarrhea, cramps, nausea, vomiting, fever & headache	Seafood and sea water	Raw or inadequately cooked seafood. Food cross contaminated by handling raw seafood	No	Cook seafood thoroughly. Prevent crass contamination. Refrigerate seafood. Obtain shellfish from approved sources.

FOODBORNE ILLNESS INFORMATION TABLE (CONT'D)

Disease	Causative Agent	Incubation Period	Duration of Illness	Symptoms	Reservoir	Foods Implicated	Spore Former	Prevention
<i>Toxin-mediated Infection</i>								
Clostridium Perfringens Enteritis	<i>Clostridium perfringens</i> toxin	6-24 hours (usually 10-12 hours)	24 hours	Abdominal pain, diarrhea, nausea, dehydration	Soil (vegetables & spices), human (intestinal tract) and animals	Improperly cooled or inadequately reheated foods (meats, stews, sauces, gravies, soups)	Yes	Quickly cool foods to below 45°F and rapidly reheat foods to at least 165°F
Hemorrhagic colitis (E. coli 0157:H7)	Pathogenic strains of <i>Escherichia coli</i> (e.g. 0157:H7)	2-8 days (usually 3-4 days)	1-8 days	Bloody diarrhea, severe abdominal pain, vomiting, kidney problems	Animals, particularly cattle, human beings (intestinal tract)	Raw and undercooked ground beef and other red meats, raw milk, unpasteurized apple cider	No	Cook ground beef thoroughly(155°F), avoid cross contamination, good personal hygiene
Bacillus Cereus gastroenteritis	<i>Bacillus cereus</i> toxin	a) 1-6 hours (vomiting) b) 6-24 hours (diarrhea)	6-24 hours (usually 12 hours)	a)Nausea,cramps, vomiting b)Watery diarrhea,cramps	Soil,dust,cereals,rice, dried foods,spices, meats,vegetables, milk & dairy products	a)Fried, boiled or cooked rice; macaroni & cheese b)Meat &vegetable dishes, puddings,sauces,soups	Yes	Refrigerate & cool leftover food promptly to≤45°F. Reheat foods to at least 165°F. Keep hot foods hot at 140°F or above.
VIRAL FOODBORNE ILLNESSES								
Hepatitis A	<i>Hepatitis A Virus</i>	15-50 days (average 28-30 days)	1 week to several months	Fever, malaise, nausea, jaundice, abdominal discomfort	Human beings, contaminated shellfish and water	Salads, vegetables, sandwiches & fruits. Raw or undercooked shellfish. Water & iced drinks.	No	Frequent handwashing, good personal hygiene, minimize bare hand contact, Hep A vaccine
Norovirus Gastroenteritis	<i>Norwalk and Norwalk-like viral agent</i>	10-50 hours (usually 24-48 hours)	24-48 hours	Nausea, vomiting, diarrhea, low grade fever, headache, abdominal pain	Human beings (intestinal tract)	Raw shellfish, raw vegetables, salads, prepared salads, water contaminated from human feces	No	Practice good personal hygiene, minimize hand contact, obtain shellfish from approved sources, thoroughly cook foods
FISH POISONINGS (Biochemical Intoxication)								
Ciguatera Fish Poisoning	Ciguatoxin	2-24 hours (usually 3-5 hours)	Weeks to several months	Weakness, muscle & joint pain, diarrhea, chills, numbness,nausea, temperature reversal,vomiting	Microscopic marine organisms (<i>Gambierdiscus toxicus</i>) growing on the surface of marine algae.	Numerous varieties of tropical reef fish & their predators e.g. Barracuda, ulua, kahala, kole, roi, palani, po'ou	No	Avoid consuming suspected fish caught from suspected areas. Clean fish well and do not eat roe (eggs), liver, head or guts. Test kit available.
Scombroid Fish Poisoning	Histamine and related compounds	Few minutes to several hours	8-12 hours	Flushed face, headache, rapid heart rate,cramps, diarrhea, itching, trouble breathing	Fish and other seafood	Mainly mahimahi, ahi, aku, akule, opelu, au and ulua	No	Refrigerate fresh fish and seafood promptly and adequately. Minimize time kept between 45°F-140°F