

FOOD POISONING OR FOODBORNE ILLNESS

Table 8. Epidemiologic Aspects of Food Poisoning

Organism	Pathogenesis	Source	Prevention
<i>Salmonella</i>	Infection	Meats, poultry, eggs, dairy products	Proper cooking and food handling, pasteurization
<i>Staphylococcus</i>	Preformed enterotoxin	Meats, poultry, potato salad, cream-filled pastry, cheese, sausage	Careful food handling, rapid refrigeration
<i>Clostridium perfringens</i>	Enterotoxin	Meats, poultry	Avoid delay in serving foods, avoid cooling and rewarming foods.
<i>Clostridium botulinum</i>	Preformed neurotoxin	Honey, home-canned foods, uncooked foods	Proper refrigeration (see text)
<i>Vibrio parahaemolyticus</i>	Infection enterotoxin	Sea fish, seawater, shellfish	Proper refrigeration
<i>Bacillus cereus</i>	Sporulation enterotoxin	Many prepared foods	Proper refrigeration
Diarrheal type	Preformed toxin	Cooked or fried rice, vegetables, meats, cereal, puddings	Proper refrigeration of cooked rice and other foods
Vomiting type			
Enterohemorrhagic including STEC 0157:H7	Cytotoxins	Milk, beef	Thorough cooking of beef, consumption of pasteurized milk products
Enterotoxigenic <i>Escherichia coli</i> (traveler's diarrhea)	Enterotoxin	Food or water	Travelers should drink only bottled or canned beverages and water, and avoid ice, raw produce including salads, and peeled fruit. Cooked foods should be eaten hot.

STEC, Shiga toxin-producing *Escherichia coli*.

Table 9. Clinical Aspects of Food Poisoning

Organism	Incubation	Symptoms	Duration
<i>Bacillus cereus</i>	Vomiting toxin 1–6 h Diarrhea toxin 6–24 h	Vomiting ± diarrhea; fever uncommon	8–24 h
<i>Brucella</i>	Several days to months; usually >30 d	Weakness, fever, headache chills, arthralgia, weight loss; splenomegaly	
<i>Campylobacter</i>	2–10 d; usually 2–5 d	Diarrhea (often bloody), abdominal pain, fever	
<i>Clostridium botulinum</i>	2 h to 8 d; usually 12–48 h	Poor feeding, weak cry, constipation, diplopia, blurred vision, respiratory weakness; symmetric descending paralysis	
<i>Clostridium perfringens</i>	6–24 h	Diarrhea, abdominal cramps, vomiting and fever uncommon	<24 h
<i>Escherichia coli</i>	→	→	
<i>E. coli</i> 0157:H7	1–10 d; usually 3–4 d	Diarrhea (often bloody), abdominal cramps, little or no fever. Can cause HUS	5–10 d
ETEC	6–48 h	Diarrhea, abdominal cramps, nausea, fever, and vomiting; uncommon	5–10 d
<i>Listeria monocytogenes</i>	2–6 wk	Meningitis, neonatal sepsis, fever	Variable
Nontyphoidal <i>Salmonella</i>	6–72 h	Diarrhea often with fever and abdominal cramps	<7 d
<i>Salmonella typhi</i>	3–60 d; usually 7–14 d	Fever, anorexia, malaise, headache, myalgias ± diarrhea or constipation	3–4 wk
<i>Shigella</i>	12 h to 6 d; usually 2–4 d	Diarrhea (often bloody), frequently fever, abdominal cramps	1 d to 1 mo
<i>Staphylococcus aureus</i>	30 min to 8 h; usually 2–4 h	Vomiting, diarrhea	<24 h
<i>Vibrio</i>	4–30 h	Diarrhea, cramps, nausea, vomiting	Self-limited
<i>Yersinia enterocolitica</i>	1–10 d; usually 4–6 d	Diarrhea, abdominal pain (often severe), mesenteric adenitis, pseudoappendicular syndrome	1–3 wk

ETEC, enterotoxigenic *Escherichia coli*; HUS, hemolytic uremic syndrome.