

Quick Pathogen Reference Table

This table is intended to be an overview of the more common enteric pathogens, typical symptoms, incubation periods, and typical durations of illness. Common risk factors, laboratory testing recommendations, and reportability are also included. Some of the pathogens may cause additional clinical manifestations which are not listed below. Additional diagnostic tests may be warranted. Additional, less common risk factors may exist.

For HEALTHCARE PROVIDERS:

Most clinical samples will only be tested by a commercial or clinical laboratory to achieve a diagnosis. Upon prior approval by [IDAHO PUBLIC HEALTH DISTRICT](#) or state level epidemiologists from the Office of Epidemiology, Food Protection and Immunization, samples may be subjected to further testing at the [IDAHO BUREAU OF LABORATORIES](#). Typical reasons for further testing include the confirmation of a suspected diagnosis, further laboratory evaluation of a clinical specimen or isolate including speciation, serotyping or molecular testing, or in support of an outbreak investigation. Please consult the Idaho Bureau of Laboratories [SAMPLING AND SUBMISSION GUIDE](#) for pathogen-specific information including type and quantity of specimen required and specimen shipping. The [IDAHO PUBLIC HEALTH DISTRICTS](#) may pursue testing of environmental samples such as food and water in support of a case or outbreak investigation.

Healthcare providers are required to [REPORT](#) certain diseases to public health officials in a timely manner. Requirements for the reporting of certain infections in Idaho, many of which are considered foodborne and waterborne, are described in the [RULES AND REGULATIONS GOVERNING IDAHO REPORTABLE DISEASES](#).

Note: Gastroenteritis can be caused by infectious and non-infectious means. These may include heavy metals, marine toxins, mushroom toxins, and organophosphates. Gastroenteritis caused by these irritants are not reportable conditions but they are of public health concern particularly in the case of a HAZMAT situation.

Pathogen Name	Typical Symptoms	Typical Incubation Period	Typical Duration of Illness	Common Risk Factors (Additional risk factors are possible)	Laboratory Testing Recommendations	Reportable	Reporting Timelines
Amebiasis (<i>Entamoeba histolytica</i>)	Diarrhea (often bloody), cramps, weight loss	2-4 weeks.	Protracted	Contaminated food or water, fecal/oral transmission, travel to endemic area	Standard O&P examination, antibody or antigen testing	Yes	Within 3 business days
<i>Bacillus cereus</i> (diarrheal form) Ingestion of spores and subsequent toxin production leads to illness.	Diarrhea (often watery), abdominal cramps, 1/4 experience vomiting	6-24 hrs.	≤24 hrs.	Contaminated meats and vegetables	Culture from stool. Enterotoxin detection in food in support of foodborne outbreak investigation with prior OEFI approval.	Clusters only	Not specifically reportable, but suspected outbreaks reportable as foodborne cluster
<i>Bacillus cereus</i> (emetic form) Due to ingestion of preformed toxin	Nausea, vomiting (often severe), cramps, 1/3 get diarrhea,	1-6 hrs.	≤24 hrs.	Fried or recooked rice	Testing available in some commercial labs	Clusters only	Not specifically reportable, but suspected outbreaks reportable as foodborne cluster

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Botulism (foodborne and infant)	Nausea, vomiting, diarrhea, neurological symptoms including symmetric descending flaccid paralysis, floppy infant	foodborne (typically 12-48 hrs), Infant: (3 - 30 days)	Protracted	Home-canned foods, Honey (infant)	Discuss Testing with Public Health Official 1-800-632-8000 Do not delay treatment pending test results.	Yes	Report immediately; Call Idaho State Communications (1-800-632-8000)
<i>Campylobacter</i>	Diarrhea, cramps, headache, fever	2-5 days	2-5 days	Poultry, meat (particularly chicken), unpasteurized dairy, contaminated water	Standard stool culture	Yes	Within 3 business days
<i>Clostridium difficile</i>	Diarrhea (sometimes bloody), abdominal cramps and tenderness, fever	Unknown	Variable	Hospitalization, recent antibiotic use	Commercial laboratory testing only: <i>C. difficile</i> toxin A&B by EIA	Clusters only	Not specifically reportable, but suspected outbreaks reportable as an extraordinary occurrence or cluster of illness.
<i>Clostridium perfringens</i> (toxigenic)	Diarrhea (watery), abdominal cramps	6-12 hrs.	≤24 hrs.	Meats, foods held for prolonged periods at improper temperatures, poultry, gravies	Testing available in some commercial labs. Culture or toxin testing at IBL only in support of foodborne outbreak investigation with prior OEFI approval.	Clusters only	Not specifically reportable, but suspected outbreaks reportable as an extraordinary occurrence or cluster of illness.
<i>Cholera (see Vibrio cholerae)</i>							
<i>Cryptosporidium</i> (multiple species)	Diarrhea (often watery, non-bloody), cramps, sometimes nausea and vomiting, low grade fever, weight loss	2-10 days	1-20 days	Contaminated produce or water	Standard O&P examination, antibody or antigen testing	Yes	Within 3 business days
<i>Cyclospora cayatanensis</i>	Diarrhea (often watery) nausea, vomiting, abdominal cramps, bloating and weight loss may occur, fever in 50% of patients	2-10 days	Protracted	Contaminated, imported produce, water, travel to endemic areas	Modified acid fast stain of oocysts	Clusters only	Not specifically reportable, but suspected outbreaks reportable as an extraordinary occurrence of illness.

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<i>Escherichia coli</i> : Shiga Toxin Producing <i>E. coli</i> (STEC)	Diarrhea (bloody or non-bloody), abdominal pain, low grade fever, possible HUS or TTP	3-4 days (range 1-8 days)	5-7 days	Undercooked meat, unpasteurized dairy, contaminated produce	Stool culture, rapid toxin tests. Reference laboratory may be used for serotyping to differentiate O157:H7 from non-O157:H7 strains, molecular subtyping and virulence factor evaluation.	Yes	Within 1 business day
<i>Giardia</i> (multiple species)	Diarrhea (watery), abdominal pain, gas	1-4 weeks, asymptomatic carrier rate is high	Protracted	Contaminated food or water, direct fecal/oral transmission from person-to-person or wild or domesticated animal-to-person.	Standard O&P direct examination to detect trophozoites or cysts, Direct fluorescent antibody to detect cysts.	Yes	Within 3 business days
Hepatitis A	Fever, malaise, jaundice, nausea	15-50 days, average 30 days	2 weeks-6 months	Person-to-person via the fecal/oral route, contaminated shellfish, produce or water, exposure while travelling to endemic area	IgG & IgM serology; Total Antibody testing is not helpful in the diagnosis of acute Hepatitis A	Yes	Within 1 business day; Also report suspected cases
<i>Listeria monocytogenes</i> (Listeriosis)	Range from mild fever, to meningoencephalitis, septicemia, may lead to fetal infection, fetal death.	range 3-70 days, average 3 weeks	Variable	Deli meat, hotdogs, unpasteurized dairy and dairy products	Cultures done primarily on serum or CSF	Yes	Within 3 business days
Norovirus	Abrupt onset of vomiting, watery diarrhea, abdominal cramps, nausea	12-48 hrs.	24-60 hrs	Fecal/oral transmission, contaminated food or water, shellfish	Groups 1 and 2 detection by rt-PCR of stool	Yes	Within 1 business day; Also report suspected Cases
Rotavirus	Diarrhea (often watery), nausea, vomiting, fever	1-3 days	4-8 days	Person-to-person via the fecal/oral route, contaminated surfaces	Qualitative enzyme immunoassay of stool to detect virus.	No	

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<i>Salmonella</i> (non-typhi)	Diarrhea, abdominal cramps, fever	6-72 hrs, usually 12-36 hrs.	4-7 days	Undercooked meat, poultry, or eggs, contaminated produce, water, live poultry, livestock, reptiles, pets	Culture from stool, blood, or urine	Yes	Within 1 business day; Also report suspected Cases
<i>Salmonella typhi</i> (typhoid fever)	Febrile illness due to bacteremia, headache, diarrhea and/or constipation possible	3 - 60 days, usually 7-14 days	Protracted	Person-to-person via direct contact, fomites, Travel to endemic area, contaminated food or water	Culture from stool, blood, or urine	Yes	Within 1 business day; Also report suspected Cases
<i>Shigella</i> (multiple species)	Diarrhea (watery, sometimes bloody), abdominal cramps, fever	1-7 days, usually 1-3 days	5-7 days	Fecal/oral transmission, contaminated surfaces, contaminated produce or water	Stool culture	Yes	Within 1 business day; Also report suspected Cases
<i>Staphylococcus aureus</i> (toxin-mediated food poisoning)	Three syndromes possible: Toxic shock syndrome, scalded skin syndrome, food poisoning. For food poisoning: Diarrhea, nausea, vomiting, abdominal cramps, low-grade fever	30 minutes to 8 hrs, usually 2-4 hrs.	1-2 days	Ill food handler, food cross contamination, contaminated ready-to-eat foods such as deli meats, dairy, or pastries	Stool culture Toxin tests may be performed on implicated foods.	Clusters only	Not specifically reportable, but suspected outbreaks should be reported.
<i>Trichinella spiralis</i> (Trichinosis, Trichinellosis)	Asymptomatic initially, or diarrhea, nausea, vomiting, abdominal cramps, weakness, myalgia	1-2 weeks	Protracted	Undercooked pork or game	Evaluate for eosinophilia, examine paired sera for change in antibody levels.	Yes	Within 3 business days
<i>Vibrio</i> (non-cholera species)	Foodborne and wound borne. Foodborne: Diarrhea (watery), abdominal pain, low-grade fever, headache, chills, vomiting may occur	5-92 hrs, usually 1 day.	1-2 days	Contaminated seafood, usually oysters, crab, shrimp	Culture from stool, vomitus, or blood	Clusters only	Not specifically reportable, but suspected outbreaks reportable as an extraordinary occurrence of illness.

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<i>Vibrio cholerae</i> (cholera)	Mild to moderate diarrhea. 5% of infections lead to voluminous, watery diarrhea, no abdominal cramps, no fever. Rapid dehydration possible.	1-3 days	3-7 days	Contaminated shellfish, travel to endemic area, contaminated food, water. Not person-to-person.	Culture from stool or vomitus, health departments will evaluate for serogroup and toxin production.	Yes	Within 1 business day; Also report suspected Cases
<i>Yersinia</i> (yersiniosis)	Diarrhea, cramps, nausea, vomiting, fever, abdominal pain	1-14 days, usually 4-6 days	1-3 weeks	Contaminated food, particularly undercooked pork, unpasteurized dairy, contaminated water.	Culture from stool or other sites	Yes	Within 3 business days

References:

American Academy of Pediatrics. In: Pickering LK, Baker, CJ, Kimberlin DW, Long SS, eds. *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics: 2009.

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Centers for Disease Control and Prevention; AZ Index <http://www.cdc.gov/>