

FOOD AND WATER-BORNE GASTROINTESTINAL PATHOGENS DURING SUMMER SEASON: SUMMARY SHEET

Agent	Admission keywords (syndrome keyword)	Food/water source	Incubation period	Person-to-person transmission	Reportable?
Bacterial					
Bacillus cereus	Emetic form: food poisoning (VOM), gastroenteritis (GASTRO) Diarrheal form: gastroenteritis (GASTRO)	Emetic: rice, pasta Diarrheal: milk products, veg, meat	Emetic: 1-6 hours Diarrheal: 8-16 hours	None	No*
Brucella	Fever (ILI)	Raw milk/cheese from infected animals	5-60 days, up to months	None	Yes
Campylobacter	Gastroenteritis (GASTRO)	Undercooked meat & poultry, contaminated food & water, raw milk products	2-5 days	Uncommon, fecal-oral	Yes
Clostridium botulinum	Stroke / paralysis (NEURO), gastroenteritis (GASTRO), respiratory failure	Improperly prepared, stored or cooked foods (esp. canned foods, smoked & salted fish)	12-36 hours, up to several days	None	Yes
Clostridium perfringens	Gastroenteritis (GASTRO)	Contaminated meats in stews, soups & gravies	8-24 hours	None	No*
Escherichia coli: (EHEC, EIEC, EPEC, ETEC)	Gastroenteritis (GASTRO), dehydration (DEHY)	EHEC: undercooked meat, unpasteurized milk; EIEC, EPEC & ETEC: contaminated food & water (esp. ETEC)	EHEC (2-8 days), EIEC (2-48 hours), EPEC (6-48 hours), ETEC (14-30 hours)	Fecal-oral (EHEC, EIEC, ETEC), direct contact (EPEC)	No*
Listeria	Influenza-like illness (ILI), meningitis / encephalitis (MEN), gastroenteritis (GASTRO), pharyngitis (RESP)	Contaminated ready-to-eat meats, unpasteurized milk & soft cheeses, veg	3-70 days	Vertical transmission	Yes
Salmonella enterica	Gastroenteritis (GASTRO), sepsis (SEP)	Poultry products, raw milk/egg products, contaminated water, meat products, raw fruit & veg	6-72 hours	Fecal-oral	Yes
Shigella	Gastroenteritis (GASTRO)	Tossed salad, chicken, shellfish	1-7 days	Fecal-oral	Yes
Staphylococcus aureus	Gastroenteritis (GASTRO)	Food containing enterotoxins	30 minutes to 8 hours	No**	No*
Vibrio cholera	Gastroenteritis (GASTRO), dehydration (DEHY)	Contaminated water, raw/undercooked seafood	Few hours to 5 days	No	Yes
Vibrio parahaemolyticus	Gastroenteritis (GASTRO)	Raw seafood	4-96 hours	No	No*
Yersinia enterocolitica	Young children: gastroenteritis (GASTRO) Older children & adults: gastroenteritis (GASTRO), abdominal pain (GNSURG)	Raw pork, multiple other sources	3-7 days	Rare fecal-oral	Yes

*Diarrhea may be reportable depending on situation

**Excludes nasopharyngeal carriers and infected wounds

References: (1) CDC (pathogen-specific web pages); (2) Edge, Appl Environ Microbiol, Oct 2013; (3) Moffatt, National Collaborating Centres for Public Health, 2011; (4) Public Health Agency of Canada Pathogen Safety Sheets and Risk Assessment; (5) Public Health Ontario Monthly Infectious Disease Surveillance Reports

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Parasitic					
Anisakiasis	Gastroenteritis (GASTRO)	Undercooked fish & squid	Hours	No	No*
Cryptosporidium	Gastroenteritis (GASTRO)	Recreational water, lakes, contaminated beverages	1-12 days	Fecal-oral	Yes
Cyclospora	Gastroenteritis (GASTRO)	Imported fresh produce (berries)	2-14 days	No	Yes
Diphyllobothrium	Gastroenteritis (GASTRO)	Raw or undercooked fish	4-6 weeks	No	No*
Entamoeba histolytica	Gastroenteritis (GASTRO), abdominal pain (GNSURG)	Contaminated food & water	2-4 weeks, up to years	Fecal-oral	Yes
Giardia	Gastroenteritis (GASTRO), abdominal pain (GNSURG)	Unfiltered water, contaminated food, recreational water	3-25 days	Fecal-oral	Yes
Taenia solium	Gastroenteritis (GASTRO)	Undercooked pork	2-3 months (egg ingestion); 2 months (cysticerci ingestion)	Fecal-oral	No*
Trichinella	Gastroenteritis (GASTRO)	Pork, wild animal meat	8-15 days	No	Yes
Viral					
Hepatitis A	Gastroenteritis (GASTRO), hepatitis (HEP)	Contaminated food & water	15-50 days	Fecal-oral	Yes
Norovirus	Gastroenteritis (GASTRO)	Contaminated food & water	15-48 hours	Fecal-oral	No*
Rotavirus	Gastroenteritis (GASTRO), dehydration (DEHY)	Possibly contaminated food & water	1-3 days	Fecal-oral	No*

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