

# CRYPTOSPORIDIOSIS

## Case definition

### CONFIRMED CASE

Laboratory confirmation of infection, with or without symptoms, from an appropriate clinical specimen [e.g. stool, intestinal fluid or small bowel biopsy]:

- demonstration of *Cryptosporidium* oocysts

**OR**

- detection of *Cryptosporidium* DNA

**OR**

- demonstration of *Cryptosporidium* antigen by an approved method [e.g. EIA, immunochromatographic – ICT].

### PROBABLE CASE

Clinical illness in a person who is epidemiologically linked to a confirmed case.

## Causative agents

*Cryptosporidium parvum*, a protozoan.

*Cryptosporidium hominis*, a protozoan.

## Source

Stool of infected humans, cattle and other domestic animals.

## Incubation

Usually 7 days, range 1-14 days.

## Transmission

Fecal-oral (person-to-person or animal-to-person), or ingestion of contaminated food or water.

## Communicability

From onset of symptoms until several weeks after symptoms resolve. Outside the body the pathogen remains infective for 2-6 months in a moist environment.

## Symptoms

Some cases are asymptomatic. The most common symptom is watery diarrhea. Other symptoms include abdominal cramps, fever, nausea, malaise, vomiting, anorexia and weight loss. In immunocompromised individuals (e.g. persons with HIV infection) chronic severe diarrhea can result in malnutrition, dehydration and possibly death.

## Diagnostic testing

Stool for enzyme immunoassay/microscopy

## Treatment

Rehydration if necessary

# PUBLIC HEALTH MANAGEMENT & RESPONSE

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## Case management

- Contact the primary care provider to obtain clinical information about the case.
- Interview the case, review clinical information, determine food history, activities, employment and potential source of exposure and identify any contacts who may require investigation.
- Educate the case and/or family about cryptosporidiosis and prevention measures [see “Education” section].
- Implement the necessary exclusions as per the “Exclusion” section for those cases identified as belonging to one or more risk group[s].
- If the case has reported a water source (including recreational and drinking water) as a potential source of exposure and an inspection is required, contact Nova Scotia Environment (NSE). Discuss the concern with the Medical Officer of Health prior to contacting the NSE District Manager for the region.
- If the case has reported a food establishment (including an institutional setting) as a potential source of exposure, contact Nova Scotia Environment.
- Document the information on the [Nova Scotia Notifiable Disease Surveillance Case Report Form](#), the [Enteric Case Report Form](#), the [Cryptosporidiosis Case Report Form](#), and the [Travel Case Report Form](#) [if travel-related] or designated electronic information system.

## Exclusion

Exclude cases in the risk groups below:

Risk Group	Criteria for exclusion
Food handlers	Until symptoms have stopped and client's bowel function returns to their normal state.
Child care staff and attendees	Until symptom-free for 24 hours
Health care or other staff who have contact with susceptible persons	Until symptoms have stopped and client's bowel function returns to their normal state
Case contacts who are symptomatic and are employed in food handling, child care, health care and/or who have contact with susceptible persons	Until symptoms have stopped and client's bowel function returns to their normal state.

## Education

- Ensure that cases belonging to a high-risk group are aware of exclusion criteria.
- Educate parents, guardians, staff and cases about the importance of hand hygiene, especially before preparing food and eating, after using the bathroom and after changing diapers.
- Inform the case about the potential to infect contacts and provide information on how to minimize transmission to others, including household and close contacts. Close contacts experiencing symptoms should seek medical attention.
- Inform cases not to participate in recreational water activities [e.g. swimming] while ill and for two weeks after symptoms resolve.

## Outbreak response

Consult the [\*Guidelines for Communicable Disease Prevention and Control for Child Care Settings\*](#) if an outbreak is suspected in a child care setting.

## Surveillance forms

[novascotia.ca/dhw/populationhealth/surveillanceguidelines/NS\\_Notifiable\\_Disease\\_Surveillance\\_Case\\_Report\\_Form.docx](https://novascotia.ca/dhw/populationhealth/surveillanceguidelines/NS_Notifiable_Disease_Surveillance_Case_Report_Form.docx)

[novascotia.ca/dhw/populationhealth/surveillanceguidelines/Enteric\\_Case\\_Report\\_Form.pdf](https://novascotia.ca/dhw/populationhealth/surveillanceguidelines/Enteric_Case_Report_Form.pdf)

[novascotia.ca/dhw/populationhealth/surveillanceguidelines/Cryptosporidiosis\\_Case\\_Report\\_Form.pdf](https://novascotia.ca/dhw/populationhealth/surveillanceguidelines/Cryptosporidiosis_Case_Report_Form.pdf)

[novascotia.ca/dhw/populationhealth/surveillanceguidelines/Sporadic\\_Com\\_Dis\\_in\\_Ret\\_Trav.pdf](https://novascotia.ca/dhw/populationhealth/surveillanceguidelines/Sporadic_Com_Dis_in_Ret_Trav.pdf)

## General Information Sheet

### REFERENCES

Public Health Agency of Canada. [2009]. Case Definitions for Communicable Diseases under National Surveillance. *CCDR* 2009; 3552, 1-123. Retrieved from [phac-aspc.gc.ca/publicat/ccdr-rmtc/09pdf/35s2-eng.pdf](https://phac-aspc.gc.ca/publicat/ccdr-rmtc/09pdf/35s2-eng.pdf)

*Control of Communicable Diseases Manual*, 20th edition. 2014. David L. Heymann, editor. American Public Health Association.

Cryptosporidium. [cdc.gov/parasites/crypto/index.html](https://cdc.gov/parasites/crypto/index.html)

*Report of the Committee on Infectious Diseases*, 2015. American Academy of Pediatrics. [cdha.nshealth.ca/pathology-laboratory-medicine](https://cdha.nshealth.ca/pathology-laboratory-medicine)

*Provincial Microbiology Users Manual*