

Cryptosporidiosis Investigation Overview

The following guidelines provide a brief overview of the steps of a cryptosporidiosis investigation. *Cryptosporidium* is a microscopic parasite that causes the diarrheal disease cryptosporidiosis. It is the leading cause of waterborne disease among humans in the U.S. Both the parasite and the disease are commonly known as "Crypto." The parasite is spread by the fecal-oral route and is usually transmitted by contaminated water. Foodborne cases/outbreaks are possible and have been linked to unpasteurized juices, apple cider, and contaminated recreational water.

For additional support, consult the NC Communicable Disease Branch at (919) 733-3419.

Basic Steps of a Cryptosporidiosis Investigation

1. Ensure case definition is met	<ul style="list-style-type: none"> Clinical criteria are not required for the Cryptosporidiosis case definition. Laboratory evidence is sufficient to meet case definition.
2. Collect clinical information	<ul style="list-style-type: none"> Use information collected from medical records or speak with the case Some cases, especially among immunocompromised Individuals, are asymptomatic Identify epidemiologic linkages to similarly ill individuals and other risk factors that may warrant public health intervention/action (e.g., common pool exposure). If 2 or more cases are identified, report as an outbreak
3. Determine the incubation period	<ul style="list-style-type: none"> The incubation period ranges from 1-10 days: usually 7 The duration is 1-20 days: usually 10 days
4. Manage the case	<ul style="list-style-type: none"> Evaluate laboratory result to determine if requirements for case definition are met Interview the case and complete the Part 2 Form/risk history and clinical packages in NCEDSS Most people with <i>Cryptosporidium</i> infection recover without specific treatment May cause severe illness in those who are immunocompromised** Cases should not participate in recreational water^ activities for 2 weeks after symptoms resolve
5. Identify recreational water exposures during infectious period	<ul style="list-style-type: none"> Hyperchlorination of pools or other recreational water^ may be recommended if the case was in recreational water during the infectious period. Consult with environmental health if recreational water exposures are identified. Hyperchlorination may be recommended because <i>Cryptosporidium</i> can live up to 10 days in pools where the chlorine levels are appropriate, but hyperchlorination can kill the parasite.
6. Identify source of exposure	<ul style="list-style-type: none"> If source of exposure is suspected to be pool or restaurant related, involve Environmental Health Specialist Farm animals can be a possible source of exposure, especially young calves
7. Manage high risk cases/contacts*	<ul style="list-style-type: none"> There are no special control measures for those in high-risk settings other than returning after symptoms have resolved Parasites are not usually passed from one person to another. Symptomatic contacts may be an indication of a possible outbreak.

<ul style="list-style-type: none"> ➤ Symptomatic Contacts 	<ul style="list-style-type: none"> • Symptomatic contacts may be an indication of a possible outbreak. • Refer to healthcare provider for appropriate testing and treatment • Provide control measures
<ul style="list-style-type: none"> ➤ Implement Control Measures 	<ul style="list-style-type: none"> • Positive individuals who are no longer symptomatic, may return to food service, healthcare, and childcare • Positive individuals should be excluded from recreational water[^] activities until 2 weeks after diarrhea has stopped • Exclude infected children from daycare facilities until diarrhea resolves • https://ncchildcare.ncdhhs.gov/Portals/0/documents/pdf/C/Communicable_Diseases_and_Exclusion.pdf?ver=2019-07-29-134115-240
<ul style="list-style-type: none"> ➤ Asymptomatic cases 	<ul style="list-style-type: none"> • Asymptomatic cases do not generally require special control measures. • An outbreak setting may require additional control measures, contact the CDB if assistance is needed.

*High-risk contacts include individuals at high-risk for severe illness or complications, healthcare workers, childcare workers, and food handlers

➤ Resources –<https://www.cdc.gov/parasites/crypto/general.html>

Critical Elements for NCEDSS

- Document if high risk (food worker, childcare attendee/worker, or healthcare worker)
- Verify if case was in a pool or other recreational water while symptomatic. If so, notify Environmental Health because the pool or other water source will likely need to be closed for hyperchlorination.

[^] **Recreational water includes swimming pools, hot tubs, water parks, water play areas, interactive fountains, lakes, rivers, or oceans.**

^{**} **Immunocompromised includes people with HIV/AIDS; those with inherited diseases that affect the immune system; and cancer and transplant patients who are taking certain immunosuppressive drugs.**