

CRYPTOSPORIDIOSIS

1. **Agent:** *Cryptosporidium parvum*, a protozoan parasite that exists as a trophozoite and oocyst.
2. **Identification:** A parasitic disease of humans and animals.
 - a. **Symptoms:** Principally diarrhea, which can be watery and profuse, and with cramping abdominal pain. Children may have anorexia and vomiting, but these are less common in adults; fever, malaise, and nausea are less common in all ages. In the immunocompromised, e.g., HIV disease, illness can be unremitting and ultimately fatal due to chronic malabsorption and wasting.
 - b. **Differential Diagnosis:** Other diarrheal diseases, including parasitic, viral, and bacterial.
 - c. **Diagnosis:** Examination of stool for oocysts, after special concentration and staining; detection of various life cycles in intestinal biopsy. Difficult to detect unless looked for specifically.
3. **Incubation:** Average about 7 days; range 1-12 days, but not precisely known.
4. **Reservoir:** Humans and animals, including domestic cattle, dogs, and cats.
5. **Source:** Oocysts survive for prolonged periods of time in environment after excretion by animals or humans.
6. **Transmission:** Fecal-oral, person-to-person, waterborne, animal-to-person.
7. **Communicability:** Oocysts appear in stool at onset of symptoms, and continue for several weeks after recovery. May survive for months under proper humidity and temperature.
8. **Specific Treatment:** Generally self-limited in the immunocompetent person, but requiring treatment in the immunocompromised when diarrhea is intractable. Octreotide (Sandostatin) may control diarrhea, but not the infection. Paromomycin (Humatin®) may be helpful.
9. **Immunity:** None known.

REPORTING PROCEDURES

1. Report within 1 working day of identification of a case or suspected case (Title 17, Section 2500, *California Code of Regulations*).
2. **Report Form: PARASITE EPIDEMIOLOGIC CASE HISTORY (T-102, 08/96 fillable).**
3. **Epidemiologic Data:**
 - a. Exposure to animals.
 - b. Sexual orientation.
 - c. History of colonic irrigation. When and where.
 - d. Emigration from or travel to a developing country within 6 months prior to onset. Specify dates and places.
 - e. Exposure to carrier and other persons with diarrheal illness within incubation period.
 - f. Occupation of case and household members.
 - g. Consumption of or exposure to nonpotable water: pools, lakes, rivers, etc. Specify dates and places.

CONTROL OF CASE, CONTACTS & CARRIERS

Contact within 24 hours to determine if sensitive occupation or situation (SOS) involved. Otherwise, investigate within 3 days.

CASE:

1. **Sensitive Occupation:** Restrictions should be individualized based on case's hygiene and severity of symptoms. If severely symptomatic, remove from SOS until diarrhea is reduced. Clearance specimens are not mandated. Chronically immunosuppressed patients are unlikely to recover; permanent removal from SOS may be appropriate only for cases that demonstrate poor hygiene and no ability to improve their practice.
2. **Non-sensitive Occupation or Situation:** Case may be closed without release specimens, provided household contacts are not symptomatic and in sensitive occupations.

CONTACTS: Household members or persons who share a common source exposure should

CRYPTOSPORIDIOSIS

be tested only if symptomatic. If positive, handle as a case. If negative or asymptomatic, no restrictions.

CARRIERS: Immunosuppressed patients remain infected chronically.

PREVENTION-EDUCATION

1. Stress hand washing and personal hygiene.
2. Advise about increased risk with genital-anal and oral-anal sex.
3. Dispose of feces in a safe, sanitary fashion.
4. Take precautions with food and water when traveling to endemic areas.
5. Advise regarding risk associated with colonic irrigation.
6. Protect water supply from fecal contamination.

DIAGNOSTIC PROCEDURES

1. Microscopic:

Container: Feces-Parasite.

Laboratory Form: Test Requisition and Report Form H-3021 or online request if electronically linked to the Public Health Laboratory.

Examination Requested: Cryptosporidium. Check appropriate boxes on laboratory form.

Material: Feces. Follow instructions provided with container.

Amount: 20-30 ml liquid stool.

Storage: Do not refrigerate; protect from overheating.

Remarks: Mix thoroughly with PVA preservative. Do not collect specimen(s) for 7-10 days after barium, mineral oil, bismuth, antibiotics, antimalarials or antidiarrheal preparations such as kaolin have been ingested.

2. Antigen Detection

Container: Feces-Parasite.

Laboratory Form: Test Requisition and Report Form H-3021 or online request if electronically linked to the Public Health Laboratory.

Examination Requested: Cryptosporidium.

Material: Feces in 10% formalin.

Amount: 20-30 ml.

Storage: Do not refrigerate; protect from overheating.