



# GIARDIASIS

1. **Agent:** *Giardia intestinalis*, (formerly *G. lamblia*), a protozoan parasite that exists as trophozoite and cyst.
2. **Identification:**
  - a. **Symptoms:** Infection principally of the upper small bowel. Often asymptomatic or mildly symptomatic. A variety of intestinal symptoms may occur and include chronic and recurrent diarrhea; steatorrhea; abdominal cramps; bloating; frequent loose, pale, fatty, malodorous stools; fatigue; and weight loss. Malabsorption of fats or of fat-soluble vitamins may occur.
  - b. **Differential Diagnosis:** Other enteric infections and parasites.
  - c. **Diagnosis:** Microscopic examination of fecal specimens. Three specimens taken 2-3 days apart will identify 80-90 percent of infections. Antigen detection by direct fluorescent antibody (DFA) assay is available. Examination of duodenal fluid (by aspiration or by string test) and mucosal biopsy may be more sensitive, but are rarely necessary.
3. **Incubation:** Variable; may be a few days to several months; most common 5-25 days.
4. **Reservoir:** Humans and many other animals, including cats, dogs, cattle, beavers, rodents, and birds. *Giardia* species are not host specific.
5. **Source:** Feces of humans and other animals.
6. **Transmission:** Transmission is fecal-oral through direct person-to-person contact or via water and, less commonly, food vehicles.
7. **Communicability:** Variable; months to years; as long as carrier state persists.
8. **Specific Treatment:**

**Recommended:** Metronidazole, tinidazole, or nitazoxanide

**Alternatives:** Furazolidone; paromomycin for treatment of severe symptomatic disease in pregnant women.

Treatment of asymptomatic cyst passers is not recommended except possibly to prevent transmission from a toddler to a pregnant woman; also in patients with cystic fibrosis or hypo-gammaglobulinemia.

9. **Immunity:** Short lived.

## REPORTING PROCEDURES

1. Report within 7 calendar days from identification, *California Code of Regulations*, Title 17, Section 2500.
2. **Report Form: PARASITE EPIDEMIOLOGIC CASE HISTORY (T-102)** available online at:  
<http://lapublichealth.org/acd/EpiForms/Ameb,Crypto,Giardiasis-T-102.pdf>
3. **Epidemiologic Data:**
  - a. Travel history.
  - b. Child contact, particularly diapered children in child care situations.
  - c. Consumption of untreated surface water.
  - d. Sexual orientation and recent sexual behavior.
  - e. Animal contact.
  - f. Exposure to known cases.
  - g. History of colonic irrigation, when and where.
  - h. Problems with water or septic system.
  - i. Occupation of case and occupation of household members.
  - j. Recreational water use



## CONTROL OF CASE, CONTACTS & CARRIERS

Investigation is required for outbreaks and for single cases. Initiate investigation within 3 days.

### CASE:

1. **Sensitive Occupation:** If symptomatic, remove from work or day care until asymptomatic and on therapy. Release specimens are not mandated.

For cases in day care, question operator about symptoms among staff and other children. Symptomatic children and staff should be excluded, screened, and treated if necessary. Asymptomatic persons should not be screened since treatment is not indicated for asymptomatic carriers.

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

### CARRIER:

Refer to treatment above. Release as for case.

## PREVENTION-EDUCATION

1. Stress hand washing and personal hygiene.
2. Dispose of feces properly.
3. Boil or disinfect water (chlorine or iodine tablets) of unknown potability, e.g., during international travel and when hiking or camping.
4. Advise about the risk of anal intercourse and oral-anal sexual practices.
5. Stress importance of proper hygiene regarding handling and disposal of pet feces
6. Stress bathing before recreational water use, avoid accidental swallowing of recreational water

## DIAGNOSTIC PROCEDURES

### 1. Microscopic:

**Container:** Feces-Parasite.

**Laboratory Form:** TEST REQUISITION FORM H-3021 available at:

<http://lapublichealth.org/lab/docs/H-3021%20Test%20Request%20Form.pdf>

**Examination Requested:** Giardiasis. Check appropriate boxes on laboratory form.

**Material:** Feces. Follow collection instructions provided with container.

**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 FORM H-3021

**Examination Requested:** Giardiasis. Check appropriate boxes on laboratory form.

**Material:** Feces in 10% formalin.

**Storage:** Do not refrigerate; protect from overheating.

**COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES  
ACUTE COMMUNICABLE DISEASE CONTROL UNIT  
PARASITE EPIDEMIOLOGIC CASE HISTORY**

**DEMOGRAPHIC INFORMATION**

Health District: \_\_\_\_\_ Census Tract: \_\_\_\_\_

Disease:  Cryptosporidiosis  Amebiasis  Giardiasis  Other \_\_\_\_\_

1. Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

2. Street: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

3. Telephone: Home (     ) \_\_\_\_\_ Work (     ) \_\_\_\_\_

4. Birthdate:     /     /     5. Age:     6. Sex:  Female  Male  Unknown

7. Race/Ethnicity: Asian/Pacific Islander\*  Black  Hispanic  White  Other  Unknown

\*If Asian/Pacific Islander, please check one of the following:

<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Cambodian (non-Hmong)	<input type="checkbox"/> Chinese	<input type="checkbox"/> Filipino	<input type="checkbox"/> Hmong	<input type="checkbox"/> Japanese
<input type="checkbox"/> Korean	<input type="checkbox"/> Laotian (non-Hmong)	<input type="checkbox"/> Thai	<input type="checkbox"/> Vietnamese (non-Hmong)	<input type="checkbox"/> Other Asian	
<input type="checkbox"/> Guamanian	<input type="checkbox"/> Hawaiian	<input type="checkbox"/> Samoan	<input type="checkbox"/> Other Pacific Islander		

8. Occupation \_\_\_\_\_

9. If case is in sensitive occupation/situation (SOS):  
Employer/Situation: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Telephone: (     ) \_\_\_\_\_

10. If household member is in SOS:  
Employer/Situation: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Telephone: (     ) \_\_\_\_\_

**DISEASE HISTORY**

11. Onset Date:     /     /     15. Was physician consulted by this case?  Yes  No  
12. Duration of symptoms (In days): \_\_\_\_\_ If Yes,  
Physician Name: \_\_\_\_\_

13. Date of first positive stool specimen:     /     /     Physician Telephone: (     ) \_\_\_\_\_

14. Symptoms	Yes	No	Unknown
Acute diarrhea (<8 days)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic diarrhea (>7 days)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood in stool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pale, fatty stools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abdominal cramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bloating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fever (highest temp _____°)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weight loss ( _____ #)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____			

16. Was this case hospitalized?  Yes  No  
If Yes,  
Hospital name: \_\_\_\_\_  
Date of admission:     /     /     \_\_\_\_\_

17. Did the case die?  Yes  No  
If Yes,  
Date of death:     /     /     \_\_\_\_\_

18. Was treatment given?  Yes  No  
If Yes,  
Name of drugs \_\_\_\_\_

**EPIDEMIOLOGY**

19. For Amebiasis Only: Was serological test performed to detect extraintestinal involvement?  Yes  No  
If yes, result: \_\_\_\_\_ If positive, which organ was affected? \_\_\_\_\_

20. For Cryptosporidium Only: Is case known to be HIV positive?  Yes  No  
If yes, send copy of this report to HIV Epidemiology Program.

21. What is sexual preference of case?  Female  Male  Both  Not applicable

22. Is this case an immigrant from another country?  Yes  No  Unknown  
If Yes,  
Country of origin: \_\_\_\_\_  
Month/Year of immigration:     /     /     \_\_\_\_\_

23. Has the case had contact with any other confirmed cases of this disease?  Yes  No  Unknown  
If yes, fill out Contact Worksheet, H-1851.

Name:

District:

IN THE SIX MONTHS PRIOR TO DISEASE ONSET, DID THE CASE

Yes No Unknown

24. Travel to another country? If yes, What country? Dates of Travel: / / To / /

25. Consume untreated surface water? If yes, Where and what type of water? Date: / /

26. Work or reside in an institution for the developmentally disabled? If yes, Institution: Telephone: ( )

27. Attend a day care center, preschool or babysitting group? If yes, Name: Telephone: ( )

28. Receive colonic irrigation (enemas)? If yes, Where performed? Telephone: ( ) Date: / /

29. Participate in camping, hiking, swimming, or fishing? If yes, Specify place: Last date: / /

30. Consume unpasteurized milk or milk product? If yes, Type of product, brand and place of purchase

31. Experience plumbing problems in the home? Explain

32. Have contact with any animals? Explain

EPIDEMIOLOGIC DATA

Remarks: Use Progress Note for routine remarks. This space is only to expand on the questions above.

Suspected source (If known):

Date Opened / / Date Closed / / Investigator's Signature:

Investigator's Name and Title: (Please Print) Telephone: ( )

DHO's Signature: Date:

ACDC Reviewer: Report? Yes No