



# 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 (acd-parasite)

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

Public Health Nursing Home Visit Protocol:  
Home visit as necessary – a face to face interview is conducted as necessary.

Refer to “Public Health Nursing Home Visit AS NECESSARY (HVAN) Algorithm” (B-73 Part IV Public Health Nursing Home Visit Protocol).

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

**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.