



# TRICHINOSIS (Trichiniasis, trichinellosis)

1. **Agent:** *Trichinella spiralis*, a nematode (round worm).
2. **Identification:**
  - a. **Symptoms:** A disease caused by larval migration through the body of larvae and their encystment in muscles. Clinical disease in man is markedly irregular and can range from inapparent infection to a fulminant, fatal disease. Symptoms include edema of upper eyelids, gastrointestinal symptoms (diarrhea), muscle soreness and weakness, fever, respiratory and neurological abnormalities, and myocardial failure.
  - b. **Differential Diagnosis:** Other conditions such as collagen disorders and systemic illnesses with diverse manifestations.
  - c. **Diagnosis:** Muscle biopsy often conclusive. EIA for IgG and IgM is very sensitive and specific. Eosinophilia, skin tests, and serologic tests may aid in diagnosis.
3. **Incubation:** 1-45 days; usually about 10-14 days after ingestion of infected meat.
4. **Reservoir:** Swine and wild animals, including wild boar, fox, wolf, bear, and rats.
5. **Source:** Meat of infected animals.
6. **Transmission:** Ingestion of flesh of animals containing viable encysted trichinae, chiefly, insufficiently cooked pork.
7. **Communicability:** Not person to person.
8. **Specific Treatment:** Mebendazole; corticosteroids in severe cases of cardiac or central nervous system disease.
9. **Immunity:** None

## REPORTING PROCEDURES

1. **Reportable.** *California Code of Regulations*, Sections 2500 and 2622.

2. **Report Form: TRICHINOSIS SURVEILLANCE CASE REPORT (CDPH 8606, REV 11/10)**

3. **Epidemiologic Data:**

- a. Kinds of meat eaten during month prior to onset: pork or pork products, wild game; include dates, places and preparation of home or commercial food.
- b. Names and addresses of others eating suspected food.
- c. Investigate the possibility of an unlicensed meat source, slaughterhouse. Notify ACDC and Food and Milk Unit.
- d. Investigate any ethnic foods purchased or consumed. Notify ACDC and Food and Milk Unit.

## CONTROL OF CASE, CONTACTS & CARRIERS

Investigate within 24 hours to determine if commercial food is implicated or if suspected noncommercial source is still available for consumption. Hold any suspected food products for possible laboratory analysis. Prohibit further use of contaminated product.

**CASE:** No restrictions.

**CONTACTS:** No restrictions.

**CARRIERS:** Not applicable.

## PREVENTION-EDUCATION

1. Cook pork and wild game thoroughly.
2. Advise that home freezing does not necessarily kill trichinae.
3. Clean potentially contaminated utensils including meat grinder, chopping board, knives.
4. Avoid feeding uncooked garbage to swine.



## DIAGNOSTIC PROCEDURES

1. Food samples to be collected by the Food and Milk inspector. Embargo suspected meat in original container and refrigerate. Obtain signed **SPECIMEN RELEASE FORM (H-137)**.

**Container:** Clean, covered container.

**Laboratory Form:** **PARASITOLOGY (H-383)**.

**Examination Requested:** Trichinosis.

**Material:** Suspected food (meat).

**Storage:** Refrigerate.

**Remarks:** Collect lean portions of suspected food (meat).

2. **Serology:** To California State Department of Health.

**Container:** State Special Serology.

**Laboratory Form:** **State Special Serology (Lab 413)**.

**Examination Requested:** Trichinosis.

**Material:** Clotted blood.

**Amount:** 10 ml.

**Storage:** Refrigerate.

**Remarks:** The State performs a qualitative latex agglutination test. If positive, it is sent to CDC for a quantitative bentonite flocculation (BF) test; diagnostic titer is >1:5. A rise in titer is significant. Collect second blood specimen 1 month later as necessary. Allow 2 weeks to 2 months for results.