

Trichinosis

Reporting Obligations

Confirmed and suspected cases shall be reported to the local Health Unit.

REPORTING FORM

Epidemiology

Aetiologic Agent:

Trichinosis is a foodborne parasitic infection caused by the intestinal roundworm (a nematode), *Trichinella* spp., whose larvae migrate to muscles and become encapsulated in muscle tissues. There are many species of *Trichinella* capable of causing infection in mammals but in Canada, the most common species causing human infection include *T. nativa*, *T. murrelli* and *Trichinella* genotype T6.

Clinical Presentation:

Clinical illness in humans is highly variable and can range from inapparent infection to a fulminating, fatal disease, depending on the number of larvae ingested.

During the first week after ingesting infected meat, the person may be asymptomatic or experience abdominal discomfort, nausea, vomiting and or diarrhea. One to several weeks later, as larvae migrate into tissues, fever, myalgia, periorbital edema, urticarial rash, and conjunctival and subungual hemorrhages may develop. Cardiac and neurological complications may appear in the third to sixth week.

Modes of transmission:

Eating raw or undercooked meat of animals containing the *Trichinella* larvae, in particular pork, pork products and beef products. Reservoirs include swine, dogs, cats, horses, rats and many wild animals such as bear, wolf, fox and wild boar.

Incubation Period:

Systemic symptoms usually appear about 8 – 15 days after ingestion of infected meat; this varies from 5 – 45 days depending on the number of parasites involved. GI symptoms may appear within a few days.

Period of Communicability:

Not transmitted person to person; animal hosts may remain infective for months and meat from these animals remains infective until the larvae are killed by sufficient cooking or irradiation.

Risk Factors/Susceptibility

- Consumption of game meat
- Consumption of undercooked meat products (pork, beef)

Diagnosis & Laboratory Testing

Diagnosis is based on clinical presentation and epidemiological evidence and can be confirmed by blood tests and skeletal muscle biopsy. Skeletal muscle biopsy taken more than 10 days after infection (most often positive after the fourth or fifth week of infection) frequently provides conclusive evidence of infection. Serum antibody titres rarely become positive before the second week of illness; testing paired acute and convalescent serum specimens usually is diagnostic.

TESTING INFORMATION & REQUISITION

Treatment & Case Management

Specific treatment is under the direction of the attending health care provider. Albendazole or mebendazole are effective in the intestinal stage and the muscular stage. Corticosteroids are indicated only in severe cases to alleviate symptoms of inflammatory reaction when the CNS or heart is involved; however they delay elimination of adult worms from the intestine. In rare cases where infected meat is known to have been consumed, prompt administration of anthelmintic treatment may prevent development of symptoms.

Albendazole is available through the [Public Health Agency of Canada Special Access Program \(SAP\)](#).

Patient Information

PATIENT FACT SHEET

Additional Resources

1. [CDC. "Parasites--Trichinellosis."](#)

References

1. [Ministry of Health and Long Term Care, Infectious Diseases Protocol, 2014.](#)