

# Tetanus

## Reporting Obligations

Tetanus is designated as a disease of public health significance and is reportable under the *Ontario Health Protection and Promotion Act*. Report all suspect and confirmed cases within **one business day** to the health unit.

### REPORTING FORM

## Epidemiology

### Aetiologic Agent:

Tetanus is an acute and often fatal disease caused by an extremely potent neurotoxin produced by *Clostridium tetani*.

### Clinical Presentation:

The disease presents with characteristic painful spasms of skeletal muscles, usually beginning in the jaw (lockjaw), and followed by abdominal rigidity (often one of the initial symptoms in older children and adults). Spasms last for 3-4 weeks, but complete recovery takes much longer. As disease progresses there may be prolonged and more frequent spasms.

### Modes of transmission:

Spores are introduced into the body through puncture wounds or lacerations that have been contaminated with soil, street dust, or the feces of animals or humans. Spores are also transmitted into the body by contaminated street drug paraphernalia and contaminated skin.

### Incubation Period:

Usually 3-21 days, with a range from 1 day to several months, depending on the character, extent, and location of the wound. The average incubation period is 8 days; most cases occur 14 days after exposure. In general, shorter incubation periods are associated with more heavily contaminated wounds, more severe disease, and a worse prognosis.

### Period of Communicability:

No direct person to person transmission.

## Risk Factors/Susceptibility

Vaccine preventable disease; active immunity is induced by the tetanus toxoid and persists for at least 10 years after full immunization. To maintain high levels of immunity, booster doses are required every 10 years. Risk factors include:

- Unimmunized or inadequately immunized persons
- Living/spending long periods of time in agricultural regions where contact with animal excreta is more likely
- Parenteral use of recreational drugs (particularly intramuscular or subcutaneous)

**Note:** Recovery from tetanus may not result in immunity; second attacks can occur, and primary immunization is indicated after recovery

## Diagnosis & Laboratory Testing

Clinical evidence of illness without other apparent medical cause with or without isolation of *Clostridium tetani* (*C. tetani*) and with or without history of injury.

There is no diagnostic laboratory test for tetanus. Diagnosis is determined by clinical findings.

**Note:** Reactive Anti-Tetanus Toxoid Immunoglobulin G (IgG) by the enzyme immunoassay (EIA) method does not provide proof of protection against tetanus.

Consult with the Public Health laboratory about appropriate specimens and testing methodology.

## Treatment & Case Management

Treatment as per attending health care provider. In cases where an individual has been injured and suspected of not having sufficient immunity to the bacteria, a vaccine and antitoxin can be administered. Regardless of immunization status, wounds should be cleaned and debrided properly if dirt or necrotic tissue is present. As an essential part of tetanus prophylaxis, wounds should receive prompt surgical attention and/or treatment to remove all devitalized tissue and foreign material. It is not necessary or appropriate to debride puncture wounds as extensively. Refer to "[Canadian Immunization Guide \(2006\), Tetanus Prophylaxis in Wound Management.](#)"

Public Health will investigate cases to determine the source of infection.

## Patient Information

### PATIENT FACT SHEET

## References

1. [Ministry of Health, Infectious Diseases Protocol - Ontario Public Health Standards, 2022.](#)

## Additional Resources

1. [PHAC. "Canadian Immunization Guide \(2006\), Tetanus Toxoid."](#)
2. [Centers for Disease Control and Prevention. "Tetanus- also known as lockjaw."](#)
3. [MOHLTC. "Publicly Funded Immunization Schedules for Ontario" June 2022.](#)
4. [PHO. "Tetanus", Dec 2022.](#)