

TETANUS



WHAT IS IT?

Tetanus is an infection of the nervous system caused by the bacteria *Clostridium tetani* (*C. tetani*). Spores of *C. tetani* live in soil, dust, and manure and can enter the body through breaks in the skin from puncture wounds, lacerations, etc. Once in the body, the spores release bacteria that produce a toxin. The toxin causes painful muscular contractions and rigidity, usually within 7 to 21 days of infection.¹ Tetanus infection is also called lockjaw because muscle rigidity can be so severe that the jaw becomes tightly closed.²

Populations at high risk for tetanus include those with an acute injury who are:²

- Unvaccinated, inadequately vaccinated, or with unknown vaccination history
- Adults aged ≥ 60 years
- Adult diabetics
- Injection-drug users

HOW CAN YOU GET IT?

C. tetani in the environment may enter the body through a break in the skin. Contact with soil, dust, and animal or human feces can all result in exposure. Tetanus does not spread by person-to-person contact.²

WHAT ARE THE SYMPTOMS?

Symptoms of tetanus may include stiffness in the neck and abdomen from muscle spasms, difficulty swallowing, painful contractions of muscle groups (tetany), lockjaw, drooling, excessive sweating, fever, irritability, uncontrolled urination, or defecation.³

Tetanus can be fatal if left untreated. Hypoxia (lack of oxygen) caused by spasms in the throat or lung muscles may lead to irreversible brain damage.

HOW DO YOU PREVENT IT?

Immunization is the key to tetanus prevention. A booster shot of Td vaccine should be given every 10 years.⁴

WHAT SHOULD YOU DO IF YOU ARE EXPOSED TO THE DISEASE OR GET THE DISEASE?

High-risk wounds include those that:

- Occurred outdoors
- Had contact with soil
- Occurred in an individual who has not received a tetanus booster (vaccine) within five years or is not sure of his/her vaccination status

A fire fighter or other emergency response personnel who has received a wound should:⁴

- Cleanse the wound immediately
- Report the exposure as soon as possible to the infection control officer and/or medical director and see a healthcare provider

An examining healthcare provider must determine the time since the individual's last immunization. If the fire fighter or emergency worker sustained a significant or contaminated wound, he or she should receive an additional booster shot if a tetanus toxoid shot has not been received within five years prior to the injury.⁴

REFERENCES

¹ World Health Organization. *Health Topics: Tetanus*. https://www.who.int/health-topics/tetanus#tab=tab_1.

² Centers for Disease Control and Prevention. *About Tetanus: Causes and Transmission*. <https://www.cdc.gov/tetanus/about/causes-transmission.html>.

³ Centers for Disease Control and Prevention. *About Tetanus: Symptoms and Complications*. <https://www.cdc.gov/tetanus/about/symptoms-complications.html>.

⁴ Government of Canada. *Immunization of workers: Canadian Immunization Guide*. <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-3-vaccination-specific-populations/page-11-immunization-workers.html>