

## Tetanus

### Definition:

Tetanus (also known as lockjaw) is a disease caused by *Clostridium tetani* bacteria that is characterized by painful muscular contractions. *Clostridium tetani* lives in the environment, including soil, dust, and manure. Infection is usually due to a break in the skin getting contaminated.

### Signs and symptoms:

The common initial symptom is spasms of the jaw muscles (lockjaw). Other symptoms include headache, jaw cramping, sudden involuntary muscle spasms (often in the stomach), painful muscle stiffness throughout the body, difficulty swallowing, jerking or seizures, fever and sweating, high blood pressure, and fast heart rate.

### Transmission:

Tetanus is usually transmitted through infected wounds. Some breaks in skin are more likely to get infected, including wounds contaminated with dirt, feces, or saliva; puncture wounds like those from a nail, and burns. Tetanus can also occur in newborns if the mother is unvaccinated and the umbilical cord is cut with an unsterile instrument.

### Diagnosis:

There are no laboratory tests to diagnose tetanus. A tetanus diagnosis is based entirely on clinical symptoms.

### Role of the School Nurse:

#### Prevention

- Review students' immunization records. Five doses of tetanus toxoid-containing vaccine (DTaP) are routinely recommended for all children at ages 2, 4, and 6 months, 15-18 months, and 4-6 years. The childhood DTaP series is required for school entry.
- Another tetanus toxoid-containing vaccine (Tdap) is routinely recommended for all children ages 11-12 years, or as young as 7 years if they did not complete the childhood series.
- All wounds should be cleaned well. Necrotic tissue and foreign materials should be removed.

#### Treatment Recommendations

- Tetanus immune globulin (TIG) is recommended for persons with tetanus. TIG should be administered intramuscularly in doses of 3000-6000 IU.
- If TIG is not available, tetanus antitoxin (equine origin) in a single large dose should be given intravenously, following testing for hypersensitivity. Antibiotics may also be given.
- Active immunization with tetanus toxoid should be initiated concurrently with treatment.

#### Exclusions

- There are no exclusions for tetanus. It cannot be transmitted from person to person.

#### Reporting Requirements

- Tetanus is reportable immediately by telephone on recognition or strong suspicion of disease.

### Resources:

- Maine CDC website (including fact sheet)  
<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vaccine/tetanus.shtml>
- Maine Immunization Program  
<http://www.maine.gov/dhhs/mecdc/infectious-disease/immunization/index.shtml>
- Federal CDC website <http://www.cdc.gov/vaccines/vpd-vac/tetanus/default.htm>