

Tetanus Information for Adults

About Tetanus

Tetanus is different from other vaccine-preventable diseases because it does not spread from person to person. The bacteria are usually found in soil, dust, and manure and enter the body through breaks in the skin — usually cuts or puncture wounds caused by contaminated objects.

Today, tetanus is uncommon in the United States, with an average of about 30 reported cases each year. Nearly all cases of tetanus are among people who did not get all the recommended tetanus vaccinations. This includes people who have never received a tetanus vaccine and adults who don't stay up to date on their 10-year booster shots.

Causes and Transmission

Tetanus is an infection caused by a bacterium called *Clostridium tetani*. Spores of tetanus bacteria are everywhere in the environment, including soil, dust, and manure. The spores develop into bacteria when they enter the body.

Common Ways Tetanus Gets Into Your Body

Stepping on nails or other sharp objects is one way people are exposed to the bacteria that cause tetanus. These bacteria are in the environment and get into the body through breaks in the skin.

The spores can get into the body through broken skin, usually through injuries from contaminated objects. Tetanus bacteria are more likely to infect certain breaks in the skin. These include:

- Wounds contaminated with dirt, poop (feces), or spit (saliva)

- Wounds caused by an object puncturing the skin (puncture wounds), like a nail or needle
- Burns
- Crush injuries
- Injuries with dead tissue

Other Ways Tetanus Gets Into Your Body

Tetanus bacteria can also infect the body through breaks in the skin caused by:

- Clean superficial wounds (when only the topmost layer of skin is scraped off)
- Surgical procedures
- Insect bites
- Dental infections
- Compound fractures (a break in the bone where it is exposed)
- Chronic sores and infections
- Intravenous (IV) drug use
- Intramuscular injections (shots given in a muscle)

Time from Exposure to Illness

The incubation period — time from exposure to illness — is usually between 3 and 21 days (average 10 days). However, it may range from one day to several months, depending on the kind of wound. Most cases occur within 14 days. In general, doctors see shorter incubation periods with:

- More heavily contaminated wounds
- More serious disease
- A worse outcome (prognosis)

Symptoms and Complications

People often call tetanus “lockjaw” because one of the most common signs of this infection is tightening of the jaw muscles. Tetanus infection can lead to serious health problems, including being unable to open the mouth and having trouble swallowing and breathing.

Symptoms

Symptoms of tetanus include:

The first sign is most commonly spasms of the muscles of the jaw, or “lockjaw.”

- Jaw cramping
- Sudden, involuntary muscle tightening (muscle spasms) — often in the stomach
- Painful muscle stiffness all over the body
- Trouble swallowing
- Jerking or staring (seizures)
- Headache
- Fever and sweating
- Changes in blood pressure and heart rate

Complications

Serious health problems that can happen because of tetanus include:

- Uncontrolled/involuntary tightening of the vocal cords (laryngospasm)
- Broken bones (fractures)
- Infections gotten by a patient during a hospital visit (hospital-acquired infections)
- Blockage of the main artery of the lung or one of its branches by a blood clot that has travelled from elsewhere in the body through the bloodstream (pulmonary embolism)
- Pneumonia, a lung infection, that develops by breathing in foreign materials (aspiration pneumonia)
- Breathing difficulty, possibly leading to death (1 to 2 in 10 cases are fatal)

Diagnosis and Treatment

Diagnosis

Doctors can diagnose tetanus by examining the patient and looking for certain [signs and symptoms](#). There are no hospital lab tests that can confirm tetanus.

Treatment

Tetanus is a medical emergency requiring:

- Care in the hospital
- Immediate treatment with medicine called human tetanus immune globulin (TIG)
- Aggressive wound care
- Drugs to control muscle spasms
- Antibiotics
- [Tetanus vaccination](#)

Depending on how serious the infection is, a machine to help you breathe may be required.

Prevention

Vaccination and good wound care are important to help prevent tetanus infection. Doctors can also use a medicine to help prevent tetanus in cases where someone is seriously hurt and doesn't have protection from tetanus vaccines.

Vaccination

This [graphic](#) highlights CDC's tetanus vaccination recommendations for young children, preteens, and adults.

Being up to date with your tetanus vaccine is the best tool to prevent tetanus. Protection from vaccines, as well as a prior infection, do not last a lifetime. This means that if you had tetanus or got the vaccine before, you still need to get the vaccine regularly to keep a high level of protection against this serious disease. CDC recommends tetanus vaccines for people of all ages, with booster shots throughout life. [Learn who needs a tetanus vaccine and when.](#)

Good Wound Care

Immediate and good wound care can also help prevent infection.

- Don't delay first aid of even minor, non-infected wounds like blisters, scrapes, or any break in the skin.
- [Wash hands](#) often with soap and water or use an alcohol-based hand rub if washing is not possible.
- Consult your doctor if you have concerns and need further advice.

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