

# Tetanus

## What is tetanus?

Tetanus is a life-threatening bacterial infection. The bacteria usually get into the body through a cut or wound in the skin. The bacteria make a poison (toxin) that irritates the nerves and causes muscle spasms you cannot control. Tetanus is especially dangerous in young children and older adults.

Tetanus is also called lockjaw because the most common early symptom is tightening of the jaw muscles caused by spasms of the neck and jaw muscles.

## What is the cause?

The bacteria that cause tetanus are found in soil, dust, and manure. It can be easy for the bacteria to get into any wound. The poison made by the bacteria travels in the bloodstream to nerves. The poison then irritates the nerves and causes muscle spasms.

Tetanus does not spread from one person to another.

## What are the symptoms?

Symptoms may appear 3 days to 3 weeks after an injury. The first symptom is usually stiffness of the jaw. The stiffness is caused by muscle spasms. Other symptoms are:

- Stiffness of the neck
- Trouble swallowing
- Stiffness of the muscles in your belly
- Fever
- Sweating
- Fast pulse

## How is it diagnosed?

Your provider will ask about your symptoms and examine you.

## How is it treated?

Treatment usually includes:

- Thorough cleaning of all wounds
- A shot of tetanus immune globulin to keep the infection from getting worse
- A tetanus booster shot to prevent future infection
- Antibiotics

In cases when symptoms are severe, treatment may include:

- Muscle relaxants to relieve spasms

- Use of a mechanical ventilator if you need help breathing
- Physical therapy to prevent muscle contracture, which is a permanent shortening or tightening of muscles and tendons caused by constant spasms

### **How long will the effects last?**

The spasms can last for several weeks. It can take weeks or months for damaged nerves to grow back. During this time you may keep having muscle spasms and trouble breathing. It is important to get care during this recovery period at a clinic or facility where the providers are experienced in treating tetanus patients.

Tetanus can be fatal, especially in the very young and the very old, but many people recover completely. The people at greatest risk for dying from tetanus are older adults and people who have diabetes. This makes it especially important for these people to stay up to date with their tetanus shots. It is much easier to prevent tetanus than to treat it.

### **How can I take care of myself?**

- Follow your healthcare provider's instructions.
- Complete your physical therapy to help your body get back its strength and flexibility.

### **How can I prevent tetanus?**

It's much easier to prevent tetanus than to treat it. All wounds are possible sites for a tetanus infection. Clean any wound well with soap and water and put an antiseptic on the wound.

You also need to stay up to date on your tetanus shots. In the US, shots of a vaccine to protect against tetanus, diphtheria, and pertussis (whooping cough) are routinely given during childhood. The vaccine given to children is called DTaP. After childhood, you need a tetanus booster shot every 10 years. Most booster shots use the Td vaccine, which protects against tetanus and diphtheria. A new tetanus booster vaccine called Tdap also protects against whooping cough. If you have never had the Tdap vaccine, your next booster shot should be Tdap. Booster shots after 1 shot of Tdap will use the Td vaccine.

Whenever you have a dirty cut, animal bite, or puncture wound, check to see when you last had a booster shot. Get a tetanus booster shot as soon as possible after the injury if it has been more than 5 years since your last tetanus shot or you do not know when you last had a tetanus shot. This is especially important if the wound is dirty or involves soil or rusty metal. Try to get the shot the same day as the injury if possible. The bacteria grow quickly if they become trapped in a wound and will make the poison if you are not immunized.

Make sure you stay up to date with your tetanus shots even if you have had a tetanus infection. A previous infection does not protect you against another infection.

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