

Tetanus (Lockjaw)

Tetanus is a serious disease causing uncontrollable muscle spasms. It is caused by bacteria, which are spread in bites and other wounds where the skin is broken. Fortunately, vaccines can prevent tetanus. If your child is not vaccinated, he or she is at increased risk of tetanus.

What is tetanus?

Tetanus is a disease producing spasms of the muscles. It is caused by a certain type of bacteria called *Clostridium tetani*. The tetanus bacteria have toxic (poisonous) effects on the nerves.

Tetanus bacteria are all around us, especially in the soil. Fortunately, the bacteria generally cause disease only when they get under the skin. Even a minor wound can cause tetanus, if the wound is contaminated by tetanus bacteria. That is why it is so important to keep your child's tetanus vaccinations up-to-date. If your child has a wound, we may recommend vaccination, depending on whether the wound is "clean" or "dirty" and on when your child last had a tetanus shot.

What does it look like?

Tetanus is a serious disease, causing uncontrollable muscle spasms.

- The usual first symptom is called trismus, or "lockjaw." The patient is unable to move his or her jaw because of muscle spasms. He or she may have difficulty chewing, swallowing, or moving the neck.
- Muscle spasms may spread downward throughout the body. The throat and chest muscles may become so stiff that the patient cannot breathe.
- Paralysis and spasms may occur, getting better gradually over time. Most patients survive, but they have a high risk of complications. Tetanus occurring in newborns carries a particularly high risk of death and permanent complications.

What causes tetanus?

Clostridium tetani bacteria are the only cause of tetanus. Tetanus is still a leading cause of death in some Asian and African countries.

What are some possible complications of tetanus?

- Death, especially in very young (and very old) patients.

- Pneumonia and other problems leading to difficulty breathing.
- Cuts, fractures, and other medical problems caused by severe spasms.

How can tetanus be prevented?

- *Immunizations.* Diphtheria, tetanus, pertussis (DTP) vaccine is recommended for nearly all children. Four doses are given in the first 18 months, another dose between 4 and 6 years, and another at 11 or 12 years. Regular "booster shots" are recommended every 10 years. The tetanus vaccine is very safe, with few or no side effects.
- Good wound care, especially for "dirty" wounds, may help to reduce the risk of tetanus.
- *If your child gets certain types of skin wounds,* good wound care and a possible tetanus booster vaccination are needed.
- If your child has a "clean" wound and you don't know if his or her tetanus shots are up-to-date, call our office.

Seek medical care immediately if your child has a "dirty" wound with obvious contamination, such as:


- Animal bites.
- Crush or puncture wounds.
- Obvious contamination of a wound with dirt, saliva, or feces.
- These "dirty" wounds need immediate and thorough cleaning to reduce the risk of tetanus as well as of other infections.
- If your child has a "dirty" wound and has had fewer than three tetanus shots, or if there is any doubt about his or her vaccination status, we may recommend additional treatment with tetanus immune globulin. This shot provides antibodies to fight the tetanus bacteria.

How is tetanus treated?

If your child develops any of the symptoms of tetanus, get medical care immediately.

- All patients who have tetanus need hospital treatment. A tetanus antitoxin must be given as soon as possible, along with antibodies to kill the tetanus bacteria.
- Muscle relaxants are given to treat muscle spasms. Because spasms can be triggered by even minor sounds, sights, and touch, the patient needs to be sedated and kept in a dark, quiet room. Recovery takes several weeks.

 **When should I call your office?**

 Be sure to call our office if your child has any type of deep or “dirty” skin wound, including animal bites or scratches.

Also call our office if your child has any significant wound and you are not sure whether his or her tetanus shots are up-to-date.

If you are pregnant and have any questions about your own tetanus vaccination status, mention this to your doctor.