PROCEDURE

Tetanus toxoid vaccine, inactivated

An injection that helps your immune system protect you against tetanus.

PURPOSE
Prevent tetanus by building immune protection

PROCEDURE TYPE
Therapeutic - minimally invasive intramuscular injection

WHERE IT IS DONE
Outpatient clinic, pharmacy, or bedside

ANAESTHESIA
None

HOW LONG IT TAKES
About 10-30 seconds

PREPARATION
Bring vaccination records; no fasting usually needed

RECOVERY
Same day; driving is usually allowed

MAIN RISKS
Injection-site pain, redness, fever, severe allergic reaction

RESULTS
Immune protection develops over days to weeks

Overview

Tetanus toxoid vaccine is an injection that protects against tetanus. Tetanus is a serious illness caused by bacteria commonly found in soil, dust, and animal waste. The bacteria can enter through broken skin, including cuts, puncture wounds, burns, and contaminated wounds.

The vaccine contains an inactivated toxin, called a toxoid . It cannot cause tetanus. The toxoid teaches your immune system to recognize and neutralize the toxin made by tetanus bacteria.

Tetanus vaccine is usually given as part of a combination vaccine. Depending on your age and vaccination history, this may be Tdap, Td, DTaP, or DT. These also protect against diphtheria, and some protect against pertussis, commonly called whooping cough.

Protection is not lifelong. Booster doses are used to maintain immunity.

Why the procedure is performed

You may be offered a tetanus-containing vaccine as part of routine preventive care. It may also be recommended during pregnancy, after certain injuries, or when earlier vaccination records are missing or incomplete.

After a wound, your healthcare team considers:

The vaccine does not treat an active tetanus infection. It also does not directly clean or heal a wound. Wound cleaning and other treatment may still be needed.

For some higher-risk wounds, people without adequate previous vaccination may also receive tetanus immune globulin , or TIG. TIG contains ready-made antibodies that provide temporary protection while the vaccine begins building longer-term immunity.

- The type of wound and how it happened
- Whether the wound contains dirt, saliva, dead tissue, or a foreign object
- How many tetanus-containing vaccine doses you have received
- When you received your most recent dose
- Whether your immune system is weakened

Who should and should not have it

Tetanus vaccination is used for children and adults according to age-based schedules. It may be offered if you have not completed an initial vaccine series, need a booster, are pregnant, or have a wound that raises concern about tetanus exposure.

The exact vaccine matters. Children generally receive pediatric formulations. Adults may receive Td or Tdap. Tdap is used during each pregnancy to help protect the newborn from pertussis as well as to maintain the pregnant person's protection.

You should not receive a vaccine if you have had a severe allergic reaction, such as anaphylaxis, after a previous dose or to one of its ingredients.

Vaccination may be delayed if you have a moderate or severe acute illness. A mild illness, such as a minor cold, is not usually a reason to delay it.

Tell the healthcare professional giving the injection if you have had:

These situations do not always rule out vaccination. They may affect the timing, vaccine formulation, injection position, or observation needed afterward.

- Severe swelling or pain after a previous tetanus-containing vaccine
- Guillain-Barré syndrome within six weeks of a previous tetanus vaccine
- Fainting during injections or medical procedures
- A severe allergy to any vaccine ingredient
- A serious reaction after a vaccine containing pertussis

How to prepare

Follow the treating facility's own instructions first, because they take priority over general information.

Fasting is not usually required. You can normally eat, drink, and take your usual medicines unless the facility tells you otherwise. Blood thinners like warfarin or apixaban are not routinely stopped for vaccination, but tell the healthcare professional if you take one or have a bleeding disorder. Extra pressure may be applied after the injection.

Bring your vaccination record if you have it. Also explain when and how any recent injury occurred. Do not delay urgent wound care while trying to find old records.

Wear clothing that allows easy access to your upper arm. If you tend to faint with needles, say so before the injection. You can usually receive it while sitting or lying down.

What happens during the procedure

A healthcare professional checks your age, vaccination history, allergies, current health, and reason for vaccination. If the vaccine follows an injury, they also assess the wound.

The skin may be cleaned. The vaccine is injected into a muscle using a needle. Adults and older children usually receive it in the upper arm. Infants and some young children usually receive it in the outer thigh.

The injection itself takes only a few seconds. You may feel a brief pinch, pressure, or stinging sensation.

You may be asked to remain seated nearby for about 15 minutes. This helps prevent injury if you feel faint. Longer observation may be used if you have a history of certain allergic reactions.

Recovery and what to expect afterward

Pain or tenderness in the injected arm is common. Redness or mild swelling can also occur. A cool compress and gentle movement may help. Ask your healthcare team which pain reliever is suitable if you need one.

You may eat and drink normally after the injection.

Most people can continue ordinary activities. If your arm is sore, avoid activity that makes the pain worse until it settles.

You can usually drive yourself home if you feel well. Do not drive if you feel faint, dizzy, or unwell.

Most people can return to work or school immediately. If you develop fever, tiredness, or stronger arm discomfort, you may prefer to rest until you feel better.

Risks and possible complications

Common effects include soreness, redness, or swelling where the injection was given. Some people develop a mild fever, headache, tiredness, nausea, or muscle aches. These effects are usually short-lived.

Fainting can happen around injections. It is often related to the injection process rather than the vaccine itself.

A very strong local reaction can cause marked pain and swelling in the arm. Tell your healthcare team if you previously had extensive swelling after a tetanus-containing vaccine, because this can affect future timing.

Severe allergic reactions can occur after any vaccine but are uncommon. Signs may include trouble breathing, swelling of the face or throat, widespread hives, weakness, or collapse.

Improper injection technique can occasionally cause persistent shoulder pain or reduced movement. Infection at the injection site is also possible but is not a typical vaccine reaction.

Results and follow up

There is usually no immediate test result. Your immune system develops protection over the following days to weeks. If you are starting vaccination for the first time, one dose does not complete the initial series.

Keep a record of the vaccine name and the date it was given. Your healthcare team should tell you whether another dose is needed and when to arrange it. Routine blood tests to confirm

immunity are not usually required.

If the vaccine was given after an injury, continue the recommended wound care. The injection does not replace cleaning, removal of foreign material, or treatment of damaged tissue.

Attend routine follow-up for additional vaccine doses or wound review. Seek earlier care if the wound becomes increasingly painful, red, swollen, warm, or starts draining pus.

Alternatives

There is no non-vaccine option that provides the same lasting protection against tetanus.

Choosing not to be vaccinated avoids the injection and its short-term side effects, but leaves you with less protection. Having tetanus in the past does not reliably create immunity, so vaccination may still be needed after recovery.

TIG can provide rapid, temporary antibodies for certain wounds. It does not create lasting immune memory and does not replace the vaccine series.

Cleaning and treating a wound reduces contamination and supports healing. It cannot reliably replace vaccination because tetanus bacteria may be difficult to remove completely.

Different tetanus-containing vaccines may be available. Td protects against tetanus and diphtheria. Tdap also protects against pertussis. Pediatric products contain different amounts of vaccine components and are not automatically interchangeable with adult products.

When to call your healthcare team

Contact your healthcare team for routine advice if arm pain or swelling is getting worse rather than improving, side effects interfere with normal activities, or you are unsure when your next dose is due.

Arrange prompt wound review if you develop increasing redness, warmth, swelling, drainage, fever, or worsening pain.

Call emergency services immediately for:

These symptoms require urgent assessment rather than routine follow-up.

- Trouble breathing or swallowing
- Swelling of the face, lips, tongue, or throat
- Widespread hives with weakness, dizziness, or collapse

- A seizure, severe confusion, or loss of consciousness

Common questions

Will I be asleep?

No. Anaesthesia and sedation are not needed. The injection takes only a few seconds.

Can I drive home?

Usually, yes. Wait until any dizziness or faint feeling has passed. Do not drive if you feel unwell.

How painful is it?

Most people feel a brief pinch or sting. Arm soreness can last for a few days and may be more noticeable when lifting the arm.

When will I know it worked?

There is usually no routine test. Protection develops over days to weeks and relies on completing the recommended series and boosters.

Can the vaccine give me tetanus?

No. It contains an inactivated toxoid, not live tetanus bacteria, and cannot cause tetanus.

Is it too late to get vaccinated after an injury?

Not necessarily. Seek wound care promptly. The recommended treatment is based on the wound, your vaccination history, and whether TIG is needed.

Sources

- Centers for Disease Control and Prevention. Tetanus Vaccination
- Centers for Disease Control and Prevention. Clinical Guidance for Wound Management to Prevent Tetanus
- Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases: Chapter 21, Tetanus
- Centers for Disease Control and Prevention. Contraindications and Precautions: General Best Practice Guidelines for Immunization
- World Health Organization. Tetanus vaccines: WHO position paper, February 2017