PROCEDURE

Tdap (tetanus, diphtheria and pertussis) vaccine - what you need to know

Tdap is an injection that boosts protection against tetanus, diphtheria, and whooping cough.

PURPOSE
To prevent tetanus, diphtheria, and pertussis

PROCEDURE TYPE
Therapeutic (preventive), bedside intramuscular injection

WHERE IT IS DONE
Outpatient clinic, pharmacy, or bedside

ANAESTHESIA
None

HOW LONG IT TAKES
A few seconds to one minute

PREPARATION
No fasting; review vaccine history, allergies, and current health

RECOVERY
Same day with no routine driving restriction

MAIN RISKS
Soreness, fever, fainting, severe allergic reaction

RESULTS
Vaccination documented immediately; no routine laboratory result

Overview

Tdap is a vaccine against three serious infections: tetanus, diphtheria, and pertussis. Pertussis is also called whooping cough.

The vaccine cannot cause any of these infections. It contains inactive ingredients that teach your immune system to recognize the bacteria or their toxins. Protection may decrease over time, so booster doses are recommended in certain situations.

Tdap is given as an injection into a muscle, usually in the upper arm. It is not the same as DTaP, which is generally used for children younger than 7. Td is another related vaccine, but it protects only against tetanus and diphtheria.

Why the procedure is performed

Tdap lowers your chance of becoming seriously ill from tetanus, diphtheria, or pertussis. It also reduces the chance that you will spread pertussis to someone who is more vulnerable.

Tdap may be offered:

Vaccination during pregnancy passes protective antibodies through the placenta. This helps protect the baby from pertussis during the first months of life, before the baby can complete early vaccinations.

- As the routine adolescent dose, usually at age 11 or 12
- To an adult who has never received Tdap
- During each pregnancy, usually between 27 and 36 weeks
- As a booster when tetanus and diphtheria protection is due
- During wound care if your vaccination history and wound type indicate a booster
- As part of catch-up vaccination after missed doses

Who should and should not have it

Most adolescents and adults can receive Tdap. Pregnancy, breastfeeding, and a mild illness such as a cold are not usually reasons to avoid it. Tdap is not a live vaccine, so it cannot reproduce in your body.

You should not receive another Tdap dose if you had a severe allergic reaction, called anaphylaxis, after an earlier dose or to one of the vaccine's ingredients.

A pertussis-containing vaccine is generally avoided if you developed encephalopathy within seven days of a previous dose and no other cause was found. Encephalopathy means a serious disorder affecting the brain, such as prolonged seizures or a major change in consciousness. A vaccine without the pertussis component may be considered instead.

Vaccination may be delayed or reviewed more carefully if you:

These situations do not always mean you cannot be vaccinated. Your healthcare team can compare the possible risks with your need for protection.

- Have a moderate or severe illness, with or without fever
- Previously had a severe swelling reaction called an Arthus reaction
- Developed Guillain-Barré syndrome within six weeks of a tetanus-containing vaccine

- Have an unstable or worsening neurological condition
- Have had another serious reaction to a tetanus, diphtheria, or pertussis vaccine

How to prepare

Follow the treating facility's own instructions first, because its local procedures take priority.

You do not need to fast. You can usually eat, drink, and take your regular medicines as normal. Blood thinners like warfarin or apixaban are not routinely stopped for a vaccine, but tell the person giving the injection because extra pressure may be needed afterward.

Bring your vaccination record if you have it. Tell the healthcare professional about:

Wear clothing that makes your upper arm easy to reach. If injections make you light-headed, ask to receive the vaccine while sitting or lying down.

- Previous reactions to vaccines or injectable medicines
- Allergies, including known allergies to vaccine ingredients
- A current fever or significant illness
- Bleeding problems or medicines that affect clotting
- Pregnancy or the possibility of pregnancy
- Fainting during previous injections
- Recent vaccines or tetanus treatment after an injury

What happens during the procedure

A healthcare professional will confirm which vaccine you are receiving and review your relevant health and vaccination history.

The skin may be cleaned. A fine needle is then used to inject the vaccine into the deltoid muscle of your upper arm. The injection itself usually takes only a few seconds.

A small dressing may be placed over the injection site. You may be asked to remain seated for about 15 minutes afterward. This observation period helps prevent injury if you feel faint, which can happen after many types of injections.

You will usually receive an updated vaccination record. Keep it with your other health information.

Recovery and what to expect afterward

Pain, tenderness, redness, or swelling in the upper arm is common. It is usually mild and settles within a few days. Some people also develop tiredness, headache, muscle aches, nausea, or a mild fever.

You may eat and drink normally. Drinking enough fluid may help if you feel feverish or light-headed.

Gentle arm movement is safe and may reduce stiffness. You can usually return to normal activity, but consider postponing strenuous upper-body exercise if the arm is painful.

There is no routine driving restriction. Do not drive if you feel faint, unusually weak, or unwell after the injection.

Most people can work or attend school the same day. If you develop fever, fatigue, or significant arm discomfort, you may prefer to rest until you feel better.

Risks and possible complications

Most reactions are short-lived and occur near the injection site. A larger area of swelling can occasionally develop, especially after repeated tetanus-containing vaccines.

Fainting may occur during or soon after vaccination. Sitting or lying down for the injection and observation period lowers the chance of an injury from falling.

A severe allergic reaction is possible after any vaccine, although it is uncommon. Vaccination sites have medicines and equipment available to treat this promptly.

Other serious nervous system or immune reactions have been reported after tetanus-containing vaccines, but they are uncommon and are not always proven to have been caused by the vaccine. Tell your healthcare team about any serious reaction after a previous dose.

Tdap does not protect everyone completely. You can still develop pertussis, diphtheria, or tetanus, but vaccination reduces the likelihood and potential severity of illness.

Results and follow up

There is no immediate test result. The procedure is complete once the vaccine has been given and recorded. Routine blood tests are not normally needed to check your response.

Follow-up usually means keeping your vaccination record and receiving future doses when

recommended. Adults generally need a tetanus and diphtheria booster every 10 years; either Td or Tdap may be used. Earlier vaccination may be advised after some wounds.

Tdap is recommended during each pregnancy, even if you have previously received it. A dose in an earlier pregnancy does not provide the same antibody transfer to a later baby.

If you received Tdap because of a wound, the vaccine does not provide instant protection. Depending on the wound and your vaccination history, your healthcare team may also recommend tetanus immune globulin, which supplies ready-made antibodies.

Alternatives

Td protects against tetanus and diphtheria but not pertussis. It may be suitable for some booster doses or when the pertussis component should not be given. The trade-off is no added protection against whooping cough.

DTaP protects against the same three infections but is formulated for younger children. It is not normally used instead of Tdap in adolescents or adults.

Choosing no vaccine avoids injection discomfort and vaccine reactions, but leaves you without the added protection of vaccination. There is no medicine, supplement, or lifestyle measure that provides equivalent ongoing protection.

For wound care, cleaning the wound and removing damaged tissue are important, but they do not replace vaccination. Tetanus immune globulin may provide short-term protection for certain higher-risk wounds, but it does not create lasting immunity.

During pregnancy, waiting until after birth can protect the parent but misses the chance to pass the same level of antibodies to the baby before delivery.

When to call your healthcare team

Contact your healthcare team for non-emergency advice if:

Seek emergency help immediately for possible signs of a severe allergic reaction, including trouble breathing, swelling of the face or throat, widespread hives, collapse, or severe dizziness. These symptoms usually begin soon after vaccination but should be treated urgently whenever they occur.

- Pain or swelling is severe, continues to worsen, or is not settling
- A fever is high, persistent, or concerning to you

- You develop unusual weakness, numbness, or other neurological symptoms
- A reaction interferes with eating, drinking, sleeping, or normal activity
- You are unsure when your next vaccine is due

Common questions

Will I be asleep?

No. Tdap is a quick injection and does not require sedation or anaesthesia. You will be awake throughout.

Can I drive home?

Yes, in most cases. Wait until any light-headedness has passed. Do not drive if you feel faint or unwell.

How painful is it?

You may feel a brief sting during the injection. Arm soreness afterward is common and may last a few days.

When will I know it worked?

There is no routine test or immediate result. Your immune system develops a response after vaccination, but no vaccine provides complete protection.

Can I get Tdap with other vaccines?

Tdap can usually be given at the same visit as other vaccines. Separate injection sites are used. Your vaccination provider will check which vaccines you need.

What if I cannot find my vaccine records?

Tell your healthcare team what you remember. In many situations, vaccination can proceed when records are unavailable rather than leaving you unprotected.

Sources

- Centers for Disease Control and Prevention: Pertussis Vaccination Recommendations
- Centers for Disease Control and Prevention: Tetanus Vaccine Recommendations
- Centers for Disease Control and Prevention: Tdap Vaccine Information Statement
- Centers for Disease Control and Prevention: Adult Immunization Schedule Notes

- Centers for Disease Control and Prevention: Contraindications and Precautions
- US Food and Drug Administration: Boostrix prescribing information