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# TETANUS AND DIPHTHERIA TOXOIDS ADSORBED

## Tetanus and Diphtheria Toxoids Adsorbed

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AHFS Class: Toxoids (80:08)

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**Alert:**

On January 5, 2026, the US Department of Health and Human Services (HHS) announced the approval of a revised US childhood and adolescent immunization schedule ([Web]). Under the revised recommendations, CDC continues to organize the childhood immunization schedule in three distinct categories (Immunizations Recommended for All Children, Immunizations Recommended for Certain High-Risk Groups or Populations, and Immunizations Based on Shared Clinical Decision-Making) but changes individual vaccine placement within those categories. For additional information, see [Web].

## Introduction

Tetanus and diphtheria toxoids adsorbed (Td) is a fixed-combination preparation that contains tetanus and diphtheria toxins (toxoids) adsorbed onto an aluminum adjuvant; it is used to stimulate active immunity to diphtheria and tetanus.<sup>113</sup>

## Uses

### ■ Prevention of Tetanus and Diphtheria Infection

Tetanus and diphtheria toxoids adsorbed (Td) is used to stimulate active immunity to diphtheria and tetanus in adults, adolescents, and children 7 years of age or older.<sup>113</sup>

There is currently 1 preparation of the Td (Tenivac<sup>®</sup>) vaccine available in the US.<sup>113</sup> A vaccine containing diphtheria and tetanus toxoids adsorbed (DT) was previously available for use in infants and children 6 weeks through 6 years of age, but was discontinued in 2022.<sup>227</sup>

Diphtheria and tetanus are bacterial infections that can cause potentially serious complications and death.<sup>105,166,167</sup> Diphtheria is a bacterial infection of the mucous membranes, spread by respiratory droplets or direct contact with infected skin lesions; it is most commonly caused by toxigenic strains of *Corynebacterium diphtheriae*.<sup>105,166</sup> *C. ulcerans* and *C. pseudotuberculosis* can also produce a diphtheria-like illness.<sup>105</sup> The most common presentation is an infection of the respiratory tract, which presents with membranous nasopharyngitis, obstructive laryngotracheitis, or bloody nasal discharge; cutaneous, vaginal, conjunctival, or otic infections also occur less commonly.<sup>105</sup> Most of the complications of diphtheria that can develop, including myocarditis, neuritis, and death, are caused by direct effects of the bacterial toxin.<sup>166</sup> Diphtheria rarely occurs in the US and other industrialized countries; however, it can occur worldwide, especially in countries with suboptimal vaccination coverage.<sup>166</sup>

Tetanus is a potentially fatal disease caused by a neurotoxic exotoxin (tetanospasmin) produced by *Clostridium tetani*.<sup>105,167</sup> Tetanus is characterized by neurologic symptoms including trismus and severe, painful muscle spasms; these symptoms have a gradual onset, with progression of symptoms occurring over several days.<sup>105</sup> While tetanus can occur worldwide, it is reported most frequently in densely populated regions in hot, damp climates with soil rich in organic matter.<sup>167</sup> Tetanus is not transmitted person-to-person.<sup>105,167</sup> *C. tetani* usually enters the body through a wound.<sup>105,167</sup> In the US, tetanus is rare due to widespread active immunization practices; nearly all cases that do

occur are in those who have never received a tetanus vaccine or have not received their 10-year booster.<sup>105</sup>

Experts have inferred that after a complete vaccine series with a tetanus toxoid and diphtheria toxoid vaccine, the vaccine has 100% efficacy for tetanus and 97% for diphtheria.<sup>300</sup>

## Primary and Booster Vaccination

The Centers for Disease Control and Prevention (CDC)'s Advisory Committee on Immunization Practices (ACIP) and other experts (e.g., American Academy of Pediatrics [AAP]) provide recommendations for the prevention of diphtheria and tetanus.<sup>105,199,200,237</sup> These experts recommend that all individuals receive routine immunization against diphtheria, tetanus, and pertussis.<sup>105,199,200,237</sup> Use of a combination vaccine generally is preferred over separate injections of the equivalent component vaccines.<sup>134,199</sup> Considerations should include provider assessment (e.g., number of injections, vaccine availability, likelihood of improved coverage, likelihood of patient return, storage requirements, cost), patient preference, and potential for adverse effects.<sup>134</sup> Therefore, a fixed-combination preparation that contains antigens for all 3 diseases (diphtheria and tetanus toxoids and acellular pertussis vaccine adsorbed; DTaP) is preferred for primary and booster immunization against these diseases in infants and children 6 weeks through 6 years of age unless pertussis antigens are contraindicated or should not be used.<sup>105,199,237</sup> Td should be used for primary or booster immunization against diphtheria and tetanus only when DTaP *cannot* be used.<sup>105,166,199,237</sup>

Either Td or a fixed-combination preparation that also contains pertussis antigens (tetanus toxoid and reduced diphtheria toxoid and acellular pertussis vaccine adsorbed [Tdap]) is recommended for catch-up and booster immunization against diphtheria and tetanus in adults, adolescents, and children 7 years of age or older.<sup>100,105,199,200</sup> Catch-up vaccination consists of 1 dose of Tdap (preferred) followed by a dose of Td or Tdap  $\geq 4$  weeks later, then a third dose of Td or Tdap 6–12 months later; Tdap is preferred for the first dose of the catch-up series but can also be substituted for any Td dose.<sup>100,199,200</sup> To reduce the morbidity associated with pertussis, ACIP, AAP, and other experts recommend that a single dose of Tdap be used in place of a required primary or booster dose of Td (preferably the first dose) in individuals 7 years of age or older who have not previously received Tdap, unless pertussis antigens are contraindicated or should not be used.<sup>105,199,200,237</sup> Individuals in this age group who previously received a dose of Tdap should then receive Td or Tdap for subsequent primary or booster doses.<sup>100,199,200</sup> Recommendations for catch-up vaccination are the same in pregnant patients as for the general population; the Tdap vaccine should replace one dose of Td, preferably between 27–36 weeks of gestation.<sup>205</sup>

Tdap is the preferred tetanus toxoid and diphtheria toxoid-containing vaccine to be used in pregnancy.<sup>205</sup> Tdap is recommended to be administered between 27–36 weeks of gestation with each pregnancy.<sup>205</sup> Tdap should also be administered instead of Td in patients who are due for their 10-year booster while pregnant (ideally, between 27–36 weeks of gestation).<sup>205</sup> It is appropriate to administer Tdap outside of the 27–36 week window for certain extenuating circumstances, such as for wound management.<sup>205</sup>

ACIP, AAP, CDC, and other experts state that recommendations regarding use of inactivated vaccines in HIV-infected children are the same as those for individuals who are not infected with HIV.<sup>155,156,199,237</sup> The possibility that inactivated vaccines, including Td, may be less immunogenic in immunocompromised individuals should be considered.<sup>105</sup>

## Postexposure Prophylaxis

### Diphtheria

*Regardless of immunization status, all close contacts of a patient with infection caused by toxigenic diphtheria require surveillance for evidence of disease for 7 days following their last exposure; they should also be cultured for *C. diphtheriae* and receive antimicrobial prophylaxis with oral erythromycin for 7–10 days or a single IM dose of penicillin G benzathine.<sup>105</sup> Close contacts who are asymptomatic should receive an age-appropriate booster dose of DTaP, Tdap, or Td if they have not received a booster dose in the past 5 years.<sup>105</sup> Asymptomatic close contacts with incomplete or unknown vaccination history should be vaccinated with DTaP, Tdap, or Td, depending on their age.<sup>105</sup> Use of equine diphtheria antitoxin in close contacts who are not immunized is not recommended, since evidence has not shown a benefit associated with this practice.<sup>105</sup> Close contacts of patients infected with cutaneous or respiratory diphtheria that is not toxigenic do not require postexposure prophylaxis.<sup>105</sup>*

### Tetanus

*The risk of developing tetanus is dependent on the type of wound (clean/minor or not) and the immune status of the patient.<sup>105</sup> When active immunization against tetanus is indicated as part of postexposure prophylaxis after injury and possible exposure to tetanus infection, an age-appropriate vaccine should be administered (DTaP, Tdap, or Td).<sup>105</sup> Patients with clean, minor wounds should be up-to-date with their vaccine (i.e., completed a primary series with the most recent dose in the past 10 years); patients who are not up-to-date should receive an age-appropriate vaccine.<sup>105</sup> In patients with non-clean or non-minor wounds (i.e., contaminated wounds, puncture wounds, avulsions, wounds resulting from flying or crushing objects, animal bites, burns, or frostbite), it should be determined whether the patient has completed a primary tetanus diphtheria vaccination series.<sup>105</sup> In those with such wounds who completed a primary vaccination series, it should be determined when their last dose was.<sup>105</sup> If the last dose was more than 5 years prior, an age-appropriate vaccine should be administered.<sup>105</sup> In patients with such wounds who have not completed the primary series or in those with an unknown vaccination history,*

*IM tetanus immune globulin should also be administered in addition to age-appropriate vaccination.<sup>105</sup> Patients with non-clean or non-minor wounds who have HIV or other severe immunodeficiency should receive tetanus immune globulin regardless of immunization history.<sup>105</sup>*

## Dosage and Administration

### ■ General

#### Pretreatment Screening

- Screen patients for latex allergy.<sup>113</sup>
- Confirm number of previous doses of vaccine.<sup>113</sup>
- Screen patients for Arthus-type hypersensitivity reaction with prior use.<sup>113</sup>
- Screen for occurrence of Guillain-Barré syndrome within 6 weeks of prior vaccine containing tetanus toxoid.<sup>113</sup>
- Screen for moderate or severe illness.<sup>134,226</sup>

#### Patient Monitoring

- Monitor for signs and symptoms of hypersensitivity.<sup>113</sup>
- Monitor for syncope.<sup>113</sup> Ensure procedures are in place to avoid a fall injury from syncope following vaccination.<sup>134</sup> Syncope and secondary injuries may be averted if the patient sits or lies down during and for 15 minutes after vaccination.<sup>134</sup> If syncope occurs, observe patient until symptoms resolve.<sup>134</sup>

#### Other General Considerations

- Have epinephrine and other appropriate agents and equipment available for immediate use in case an anaphylactic reaction occurs.<sup>113</sup>

### ■ Administration

Tetanus and diphtheria toxoids adsorbed (Td) are administered only by IM injection in 0.5-mL doses.<sup>113</sup> Do *not* administer IV, subcutaneously, or intradermally.<sup>113</sup>

Each 0.5 mL of Td contains 2 Lf units of diphtheria toxoid adsorbed and 5 Lf units of tetanus toxoid adsorbed.<sup>113</sup>

To ensure delivery into muscle, administer IM injections at a 90° angle to the skin using a needle length appropriate for the individual's age and body mass, thickness of adipose tissue and muscle at the injection site, and the injection technique.<sup>134</sup>

The preferred site of injection is the deltoid muscle.<sup>113</sup> Do not inject into the gluteal area or areas where there may be a major nerve trunk.<sup>113</sup>

Before use, shake the single-dose vial or syringe well until a uniform, white, cloudy suspension results.<sup>113</sup> Inspect visually for particulate matter and discoloration prior to administration.<sup>113</sup> Discard the vaccine if it contains particulate matter, is discolored, or cannot be resuspended.<sup>113</sup> Do not reconstitute or mix with any other vaccine.<sup>113</sup>

Discard any unused portion.<sup>113</sup>

Store at 2–8°C.<sup>113</sup> Do not freeze and do not use product exposed to freezing.<sup>113</sup> Td that has been mishandled or has not been stored at the recommended temperature should not be administered.<sup>134</sup>

The complete primary vaccination series and recommended booster doses must be administered to ensure optimal protection against diphtheria and tetanus.<sup>113</sup> Interruption of the primary immunization series resulting in intervals between doses longer than recommended do not interfere with the final immunity achieved; therefore, it is not necessary to give additional doses or to start the series over.<sup>101,134</sup>

### ■ Dosage

The usual dose of Td is 0.5 mL.<sup>113</sup>

## Adults

### Primary and Booster Vaccination

*In adults who have not been previously immunized against tetanus and diphtheria, primary immunization consists of three 0.5 mL doses.<sup>113</sup> The manufacturer recommends that the first 2 doses be administered 2 months apart, and the third dose be administered 6–8 months after the second dose.<sup>113</sup>*

*The primary immunization schedule recommended by ACIP and other experts for previously unvaccinated adults 19 years of age or older (including those 65 years of age or older) is a single dose of Tdap (unless pertussis antigens are contraindicated or should not be used) followed by a dose of Td given at least 4 weeks after the Tdap dose and a second dose of Td given 6–12 months later.<sup>100,200</sup> Tdap is preferred for the first dose of the catch-up series but can also be substituted for any Td dose.<sup>100,199,200</sup>*

*For previously unvaccinated pregnant patients, ACIP recommends administration of at least 2 properly spaced doses of a tetanus toxoid-containing vaccine.<sup>100</sup> One dose should be Tdap and the second dose can either be Tdap or Td.<sup>100</sup>*

*Administer a 0.5 mL dose for routine booster vaccination every 10 years in adults.<sup>113</sup> For patients who have completed the primary series and received at least 1 dose of Tdap at age 10 years or older, ACIP states that Tdap or Td can be used for the booster dose.<sup>200</sup> For patients who have completed the primary series and did not receive at least 1 dose of Tdap at age 10 years or older, ACIP recommends that Tdap be given followed by Tdap or Td every 10 years thereafter.<sup>200</sup>*

### Postexposure Prophylaxis for Diphtheria

*Administer a 0.5 mL dose of Td for diphtheria postexposure prophylaxis in asymptomatic close contacts of diphtheria patients who have not completed primary vaccination, whose vaccination status is unknown, or who have not been vaccinated with a diphtheria toxoid-containing vaccine within the previous 5 years.<sup>105,113</sup>*

### Postexposure Prophylaxis for Tetanus

*ACIP recommendations state that a tetanus toxoid-containing vaccine is indicated for wound management when >5 or 10 years (depending on the type of wound) have passed since the last vaccine dose.<sup>100,167,200</sup> Tdap is preferred for patients who have not previously received Tdap or whose Tdap history is unknown.<sup>100,167,200</sup> If previous Tdap vaccination is documented, either Td or Tdap can be used.<sup>100,167</sup>*

*Clean, minor wounds: Administer a 0.5 mL dose of Td in adults with either an unknown vaccine history or less than 3 previous doses of a tetanus toxoid-containing vaccine.<sup>113</sup> If the patient received more than 3 previous doses, administer a 0.5 mL booster dose if more than 10 years have elapsed since the last dose.<sup>113</sup>*

*All other wounds: Administer a 0.5 mL dose of Td in adults with either an unknown vaccine history or less than 3 previous doses of a tetanus toxoid-containing vaccine.<sup>113</sup> If the patient has received more than 3 previous doses, administer a 0.5 mL booster dose if more than 5 years has elapsed since the last dose.<sup>113</sup>*

## Pediatric Patients

### Primary and Booster Vaccination

**For children <7 years of age [off-label]<sup>†</sup>** with a contraindication to pertussis-containing vaccines, vaccine providers may administer Td for all recommended remaining doses in place of DTaP.<sup>105</sup>

*The primary immunization schedule recommended by ACIP for catch-up vaccination in previously unvaccinated children 7 through 18 years of age is a single dose of Tdap (unless pertussis antigens are contraindicated or should not be used) followed by a dose of Td given 1–2 months after the Tdap dose and a second Td dose given 6–12 months after the first Td dose.<sup>105,199</sup> Tdap is preferred for the first dose of the catch-up series but can also be substituted for any Td dose.<sup>100,199,200</sup>*

*Because adolescents also may be at risk for pertussis, ACIP and AAP recommend that a single dose of Tdap be used (instead of Td) for the adolescent booster dose given at 11 to 12 years of age, unless Tdap has already been given at age 10 years or pertussis antigens are*

contraindicated.<sup>100,105,199</sup> Thereafter, administer either Td or Tdap every 10 years.<sup>100</sup>,

### Postexposure Prophylaxis in Diphtheria

Administer a 0.5 mL dose of Td or other age-appropriate diphtheria toxoid-containing vaccine for diphtheria postexposure prophylaxis in asymptomatic close contacts  $\geq 7$  years of age who have not completed primary vaccination, whose vaccination status is unknown, or who have not been vaccinated with diphtheria toxoid within the previous 5 years.<sup>105,113</sup>

### Postexposure Prophylaxis for Tetanus

ACIP recommendations state that a tetanus toxoid-containing vaccine is indicated for wound management when  $>5$  or 10 years (depending on the type of wound) have passed since the last vaccine dose.<sup>100,167,199</sup> An age-appropriate vaccine (DTaP, Td, or Tdap) should be used.<sup>105</sup> Tdap is preferred for patients  $\geq 11$  years of age who have not previously received Tdap or whose Tdap history is unknown.<sup>100,167,199</sup> If previous Tdap vaccination is documented, either Td or Tdap can be used.<sup>100,167</sup>

*Clean, minor wounds:* Administer a 0.5 mL dose of Td in patients  $\geq 7$  years of age with either an unknown vaccine history or less than 3 previous doses of adsorbed tetanus toxoid doses.<sup>113</sup> If the patient has received more than 3 previous doses, administer a 0.5 mL booster dose if more than 10 years has elapsed since the last dose.<sup>113</sup>

*All other wounds:* Administer a 0.5 mL dose of Td in patients  $\geq 7$  years of age with either an unknown vaccine history or less than 3 previous doses of adsorbed tetanus toxoid doses.<sup>113</sup> If the patient has received more than 3 previous doses, administer a 0.5 mL booster dose if more than 5 years has elapsed since the last dose.<sup>113</sup>

## ■ Special Populations

### Hepatic Impairment

The manufacturer makes no specific dosage recommendations for patients with hepatic impairment.<sup>113</sup>

### Renal Impairment

The manufacturer makes no specific dosage recommendations for patients with renal impairment.<sup>113</sup>

### Geriatric Patients

The manufacturer makes no specific dosage recommendations for geriatric patients.<sup>113</sup>

## Cautions

### ■ Contraindications

- Hypersensitivity or severe allergic reaction (e.g., anaphylaxis) after a previous dose of any tetanus toxoid or diphtheria toxoid-containing vaccine or to any component in the vaccine.<sup>113</sup>

### ■ Warnings/Precautions

#### Management of Acute Allergic Reactions

Epinephrine and other appropriate agents and equipment must be available for immediate use in case an anaphylactic or acute hypersensitivity reaction occurs.<sup>113</sup>

#### Latex

The tip caps of the prefilled syringes may contain natural rubber latex, which may cause allergic reactions in latex sensitive individuals.<sup>113</sup>

ACIP states that vaccines supplied in vials or syringes containing dry natural rubber or natural rubber latex may be administered to individuals with latex allergies other than anaphylactic allergies (e.g., history of contact allergy to latex gloves), but should not be used in those with a history of severe (e.g., anaphylactic) allergy to latex, unless the benefits of vaccination outweigh the risk of a potential allergic reaction.<sup>134</sup> Contact-type allergy is the most common type of latex sensitivity.<sup>134</sup>

## Frequency of Administration

Use of more frequent doses of the vaccine than indicated may be associated with increased incidence and severity of adverse reactions.<sup>113,</sup>

## Arthus Reactions

Patients who experience an Arthus-type hypersensitivity reaction following a prior dose of a tetanus toxoid-containing vaccine usually have high serum tetanus antitoxin levels and should not receive the vaccine more frequently than every 10 years, even for tetanus prophylaxis as part of wound management.<sup>113,</sup>

## Guillain-Barré Syndrome and Brachial Neuritis

If Guillain-Barré syndrome occurred within 6 weeks of a prior dose of a tetanus toxoid-containing vaccine, carefully weigh potential benefits and risks before administering any subsequent doses of tetanus toxoid-containing vaccines.<sup>113,</sup>

## Limitations of Vaccine Effectiveness

Vaccination may not protect all individuals.<sup>113,</sup>

## Altered Immunocompetence

The expected immune response of the vaccine may not be achieved in patients who are immunocompromised or receiving immunosuppressant therapy.<sup>113,</sup>

## Syncope

Syncope (vasovagal or vasodepressor reaction; fainting) may occur following vaccination;<sup>113,134,</sup> such reactions may be accompanied by transient neurologic signs (e.g., visual disturbance, paresthesia, tonic-clonic limb movements).<sup>134,</sup> Syncope occurs most frequently in adolescents and young adults.<sup>134,</sup> Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope.<sup>134,</sup> Syncope and secondary injuries may be averted if patient sits or lies down during and for 15 minutes after vaccination.<sup>134,</sup> If syncope occurs, the patient should be observed until symptoms resolve.<sup>134,</sup>

## Concomitant Illness

A decision to administer or delay vaccination in an individual with a current or recent febrile illness depends on the severity of symptoms and etiology of the illness.<sup>134,</sup> Minor acute illness generally does not preclude vaccination, but defer vaccination in individuals with moderate or severe acute illness (with or without fever).<sup>134,</sup>

## Specific Populations

### Pregnancy

*There are no adequate and well-controlled studies of tetanus and diphtheria toxoids adsorbed (Td) in pregnant women in the US.<sup>113,</sup> There are insufficient human data on use of the vaccine during pregnancy to establish the presence or absence of a vaccine-associated risk.<sup>113,</sup> A developmental toxicity study in rabbits did not demonstrate vaccine-related fetal malformations or variations.<sup>113,</sup> ACIP states that there is no evidence to suggest a risk to the fetus from vaccinating pregnant women with non-live virus or bacterial vaccines.<sup>134,</sup>*

### Lactation

*It is not known whether the components of the Td vaccine are excreted in human milk.<sup>113,</sup> Data are not available to assess the effect of administration of the vaccine on breast-fed infants or on milk production/excretion.<sup>113,</sup> Consider the developmental and health benefits of breastfeeding along with the mother's clinical need for the Td vaccine and any potential adverse effects on the breast-fed child from the vaccine or from the underlying maternal condition.<sup>113,</sup> For preventive vaccines, the underlying maternal condition is susceptibility to disease prevented by the vaccine.<sup>113,</sup> ACIP states that breast-feeding is not considered a contraindication for non-live vaccines such as Td.<sup>134,</sup>*

### Pediatric Use

*Safety and efficacy have not been established in infants and children younger than 7 years of age.<sup>113,</sup>*

### Geriatric Use

*In a clinical study that included 449 adults 65 years of age or older (including 192 adults 75 years of age or older), the proportion who had seroprotective antibody levels following a dose of Td (Tenivac<sup>®</sup>) was marginally lower for tetanus and lower for diphtheria compared with younger individuals.<sup>113,</sup> The rate of solicited adverse events in those 65 years of age and older generally was similar to the rate in younger adults.<sup>113,</sup>*

## ■ Common Adverse Effects

The most frequent solicited injection site reaction within 0–3 days following vaccine administration was pain, reported in 78.3% of patients 11–59 years of age and 35.3% of patients ≥60 years of age.<sup>113</sup>

The most frequent solicited systemic reaction within 0–3 days following vaccine administration was headache reported in 17.9% of patients.<sup>113</sup>

Other common (≥10%) solicited adverse reactions within 0–3 days following vaccine administration were injection site redness, injection site swelling, malaise, muscle weakness, and joint pain.<sup>113</sup>

## Drug Interactions

### ■ Immunosuppressive Treatments

Individuals receiving immunosuppressive agents (e.g., alkylating agents, antimetabolites, high-dose corticosteroids, radiation therapy, cytotoxic drugs) may have a diminished immunologic response to tetanus and diphtheria toxoids adsorbed (Td).<sup>113</sup>

Short-term (less than 2 weeks), low- to moderate-dose systemic corticosteroid therapy; long-term, alternate-day, systemic corticosteroid therapy using low to moderate doses of short-acting drugs; topical corticosteroid therapy (e.g., nasal, cutaneous, ophthalmic); or intra-articular, bursal, or tendon injections with corticosteroids should not be immunosuppressive in usual dosages.<sup>134</sup>

### ■ Other Vaccines

Although specific data are not available regarding concurrent administration of Td with all other available vaccines,<sup>113</sup> the US Public Health Service Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics (AAP) state that primary immunization against diphtheria and tetanus can be administered simultaneously with all other recommended vaccines when feasible.<sup>105,134</sup> However, unless combination vaccines appropriate for the age and vaccination status of the recipient are used, each parenteral vaccine should be administered using a different syringe and injection site.<sup>105,134</sup> Injection sites should be separated by at least 1 inch (if anatomically feasible) to allow appropriate attribution of any local adverse effects that may occur.<sup>134</sup>

### ■ Tetanus Immune Globulin

When passive immunization with tetanus immune globulin (TIG) is indicated in addition to active immunization with a preparation containing tetanus toxoid adsorbed for postexposure prophylaxis of tetanus, TIG and the preparation containing tetanus toxoid adsorbed may be given simultaneously at separate sites on a separate limb using different syringes.<sup>113,134</sup>

## Description

Tetanus and diphtheria toxoids adsorbed (Td) stimulates active immunity to diphtheria and tetanus by inducing production of specific antitoxin antibodies.<sup>101,105,113</sup>

The diphtheria toxoid adsorbed component provides protection against the exotoxin elucidated by *Corynebacterium diphtheriae*.<sup>101,113</sup> A complete primary immunization series with the age-appropriate preparation is needed to induce optimum levels of antitoxin that provide protection.<sup>101,166</sup> Serum levels of diphtheria antitoxin ≥0.1 IU/mL are generally considered protective.<sup>101,113,166</sup> Following primary immunization, protective levels of diphtheria antitoxin levels may persist for about 10 years.<sup>166</sup>

The tetanus toxoid adsorbed component induces production of specific antitoxin antibodies that neutralize exotoxin produced by *Clostridium tetani*.<sup>101,105,113</sup> A complete primary series of a preparation containing tetanus toxoid adsorbed results in protective levels of tetanus antitoxin that persist for approximately 10 years.<sup>101,105,167</sup> Protective levels of tetanus antitoxin are currently defined as ≥0.1 IU/mL when measured by enzyme-linked immunosorbent assay (ELISA) or ≥0.01 IU/mL when measured by neutralization assay.<sup>113</sup> Although some individuals may be protected against tetanus for life following primary immunization with a preparation containing tetanus toxoid adsorbed, antitoxin levels decrease over time and only approach the minimal protective level in most individuals 10 years after the last dose of tetanus toxoid adsorbed.<sup>101,167</sup>

## Advice to Patients

The following information contains important points for the clinician to discuss with patients during counseling. For more comprehensive monographs suitable for distribution to the patient, please refer to the *AHFS Patient Medication Information* monographs available from [MedlinePlus](#) (in English and Spanish; written at a 6th- to 8th-grade reading level).

- Inform the patient and/or the patient's caretaker of the benefits and risks of immunization with Td and provide them with a copy of the appropriate Vaccine Information Statement (available at CDC website [\[Web\]](#)).<sup>113,226</sup>
- Inform the patient and/or the patient's caregiver of the importance of completing the primary immunization series and receiving recommended booster doses to ensure the highest level of protection against tetanus and diphtheria.<sup>113</sup>

- Advise patients to inform their vaccination provider if they have had an allergic reaction after a previous dose of any vaccine that protects against tetanus or diphtheria, or if they have any severe, life-threatening allergies.<sup>226</sup>,
- Advise patients to inform their vaccination provider if they have ever had Guillain-Barré syndrome.<sup>226</sup>,
- Advise patients to inform their vaccination provider if they have ever had severe pain or swelling after a previous dose of any vaccine that protects against tetanus or diphtheria.<sup>226</sup>,
- Advise patients to inform their vaccination provider if they are currently moderately or severely ill.<sup>226</sup>,
- Instruct the patient and/or the patient's caregiver to report any severe or unusual adverse reactions to their clinician.<sup>113</sup>. Clinicians or individuals can report any adverse reactions that occur following vaccination to VAERS at 800-822-7967 or [Web].<sup>226</sup>,
- Advise patients to inform their clinician if they are or plan to become pregnant or plan to breast-feed.<sup>113</sup>,
- Advise patients to inform their clinician of existing or contemplated concomitant therapy, including prescription and OTC drugs and dietary and herbal supplements, as well as any concomitant illnesses.<sup>113</sup>,
- Advise patients of other important precautionary information.<sup>113</sup>,

## Additional Information

The American Society of Health-System Pharmacists, Inc. represents that the information provided in the accompanying monograph was formulated with a reasonable standard of care, and in conformity with professional standards in the field. Readers are advised that decisions regarding use of drugs are complex medical decisions requiring the independent, informed decision of an appropriate health care professional, and that the information contained in the monograph is provided for informational purposes only. The manufacturer's labeling should be consulted for more detailed information. The American Society of Health-System Pharmacists, Inc. does not endorse or recommend the use of any drug. The information contained in the monograph is not a substitute for medical care.

## Preparations

*Excipients in commercially available drug preparations may have clinically important effects in some individuals; consult specific product labeling for details.*

### ***Tetanus and Diphtheria Toxoids Adsorbed (Td)***

<b><i>ROUTES</i></b>	<b><i>FORMS</i></b>	<b><i>STRENGTHS</i></b>	<b><i>BRAND NAMES</i></b>	<b><i>MANUFACTURER</i></b>
<i>Parenteral</i>	<i>Injectable suspension, for IM use</i>	<i>Tetanus Toxoid 5 Lf units and Diphtheria Toxoid 2 Lf units per 0.5 mL</i>	<i>Tenivac<sup>®</sup></i>	<i>Sanofi Pasteur</i>

† Use is not currently included in the labeling approved by the US Food and Drug Administration.

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## References

100. Havers FP, Moro PL, Hunter P, Hariri S, Bernstein H. Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2019. MMWR Morb Mortal Wkly Rep 2020;69:77–83.
101. Liang JL, Tiwari T, Moro P, et al. Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2018;67(2):1-44
105. American Academy of Pediatrics. Red Book: 2024 Report of the Committee on Infectious Diseases. 33rd ed. Elk Grove Village, IL: American Academy of

Pediatrics; 2024.

113. Sanofi Pasteur. Tenvirac<sup>®</sup> (tetanus and diphtheria toxoids adsorbed) suspension for intramuscular injection prescribing information. Swiftwater, PA; 2024 Apr.

134. Centers for Disease Control and Prevention. General Best Practices for Immunization. July 2024.



155. Panel on Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV. Guidelines for the prevention and treatment of opportunistic infections in adults and adolescents with HIV. National Institutes of Health, HIV Medicine Association, and Infectious Diseases Society of America. Accessed October 21, 2025. Updates may be available at HIV.gov website.



156. Panel on Opportunistic Infections in Children With and Exposed to HIV. Guidelines for the prevention and treatment of opportunistic infections in children with and exposed to HIV. Department of Health and Human Services. Accessed October 21, 2025. Updates may be available at HIV.gov website.



166. Centers for Disease Control and Prevention. Chapter 7: Diphtheria. Pink Book: Epidemiology and prevention of vaccine-preventable diseases. 14th ed. Washington DC: Public Health Foundation; 2021. Updates may be available at CDC website.



167. Centers for Disease Control and Prevention. Chapter 21: Tetanus. Pink Book: Epidemiology and prevention of vaccine-preventable diseases. 14th ed. Washington DC: Public Health Foundation; 2021. Updates may be available at CDC website.



199. Centers for Disease Control and Prevention. Advisory Committee on Immunization Practices (ACIP) recommended immunization schedule for persons aged 0 through 18 years—United States, 2025. Updates may be available at CDC website.



200. Centers for Disease Control and Prevention. Advisory Committee on Immunization Practices (ACIP) recommended adult immunization schedule for ages 19 years and older - United States, 2025. Updates may be available at CDC website.



205. Committee opinion no. 718: update on immunization and pregnancy: tetanus, diphtheria, and pertussis vaccination. Obstet Gynecol. 2017;130(3):e153-e157.

226. Centers for Disease Control and Prevention. Td vaccine information statement. 2021 Aug 16. From CDC website.



227. Centers for Disease Control and Prevention. About young children with a contraindication to pertussis-containing vaccines. June 2024.



237. American Academy of Pediatrics. American Academy of Pediatrics (AAP) recommended child and adolescent immunization schedule for ages 18 years or younger –2025. Updates may be available at AAP website.

300. Centers for Disease Control and Prevention. About diphtheria, tetanus, and pertussis vaccines. 2022 Sep 6. From the CDC website.



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