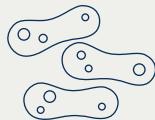


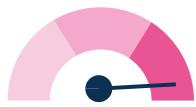
UNDERSTANDING THE RISKS

Getting Diphtheria vs. Getting Vaccinated



We all want to make the best health choices for our children. So how risky is diphtheria compared to the vaccines that prevent diphtheria?

DIPHTHERIA FAST FACTS



HOW CONTAGIOUS?

Highly contagious. It spreads through airborne droplets or contaminated items like towels or tissues.^{1,2}



HOW SERIOUS?

Mild to extremely serious.

But serious complications can include:

Death: 1 in 5 children younger than age 5; overall, 1 in 10 will die even with treatment^{1,3,4,5}

Skin ulcers that may leave permanent scars¹

Gray or black coating on the back of the throat that can lead to problems swallowing and breathing^{1,5,6}

Loss of lung function^{4,5}

Nerve damage that can lead to paralysis¹



Diphtheria complications increase with age and for those with other health issues. Even with treatment, recovery is often slow. Rates of death are higher in children under the age of 5 and in adults older than 40.^{1,5}

Diphtheria still causes thousands of cases around the world each year. But diphtheria is very rare in the United States because most of us vaccinate our children.^{1,6,7}

VACCINE FAST FACTS



HOW EFFECTIVE?

The vaccines that protect against diphtheria (DTaP and Tdap) are 97% effective when the vaccine series is complete.⁸



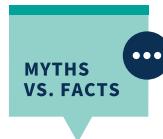
HOW SAFE?

Safety reviews of DTaP and Tdap found no unexpected safety concerns for children.⁹



SAFETY RECORDS

Diphtheria vaccines started being routinely given in the 1940s. The DTaP vaccine has been given since 1991.^{6,10}



MYTH BUSTER

Do vaccines cause sudden infant death syndrome (SIDS)? No. The National Academy of Medicine studied this and found NO increased risk of SIDS after vaccination.^{11,12}



Five separate safety systems continuously monitor all vaccines for as long as the vaccines are given.¹³

Learn more at hhs.gov/immunization/basics/safety/index.html.

COMPARING THE TWO

DIPHTHERIA	VACCINES TO PREVENT DIPHTHERIA
<p>Common Mild to Moderate Symptoms and Common Side Effects^{1,4,6,7,9}</p> <p>There are two common types of diphtheria. The most serious is respiratory, but there is also a cutaneous (skin) type of diphtheria. With prompt medical care, common symptoms of diphtheria last about 1–2 weeks and can include:</p> <p>Diphtheria can cause issues with breathing and symptoms such as:</p> <ul style="list-style-type: none">• Thick gray or black coating in nose, throat, and/or airway• Throat pain• Mild fever• Weakness or fatigue• Headache• Swollen neck glands• Problems breathing <p>Cutaneous diphtheria can also cause sores or shallow ulcers on the skin.</p>	<p>Common side effects of vaccines to prevent diphtheria are usually mild and last 1–3 days. If side effects occur, they can include:</p> <ul style="list-style-type: none">• Soreness, redness, or swelling where the vaccine was given• Low-grade fever and chills• Being fussy• Loss of appetite• Nausea, vomiting, diarrhea, or stomachache• Feeling tired

Rare, More Serious Symptoms or Complications and Rare Side Effects^{1,4,6,7,9,14,15}

Serious symptoms or complications of diphtheria vary and can include:

- Airway blockage caused by thick adherent coating
- Myocarditis (damage to the heart)
- Lung infection and failure
- Nerve damage
- Kidney failure

Serious side effects of vaccines to prevent diphtheria vary and can include:

- High fever
- Crying for 3+ hours
- Very small risk of seizures caused by fever
- Severe allergic reaction (generally, for every 1 million vaccines administered in the United States, only about 1–2 doses results in a severe allergic reaction)

Sources:

1. Mayo Clinic: <https://www.mayoclinic.org/diseases-conditions/diphtheria/symptoms-causes/syc-20351897>
2. Centers for Disease Control and Prevention (CDC): <https://www.cdc.gov/diphtheria/about>
3. Immunize.org: <https://www.immunize.org/wp-content/uploads/catg.d/p4203.pdf>
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5. StatPearls Publishing: <https://www.ncbi.nlm.nih.gov/books/NBK560911>
6. CDC: <https://www.cdc.gov/surv-manual/php/table-of-contents/chapter-1-diphtheria.html>
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9. CDC: <https://www.cdc.gov/vaccine-safety/vaccines/dtap-tdap.html>
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11. Children's Hospital of Philadelphia: <https://www.chop.edu/vaccine-education-center/vaccine-safety/-vaccines-and-other-conditions/sudden-infant-death-syndrome-sids>
12. CDC: <https://www.cdc.gov/vaccine-safety/about/sids.html>
13. U.S. Department of Health and Human Services (HHS): <https://www.hhs.gov/immunization/basics/safety/index.html>
14. Journal of Allergy and Clinical Immunology: [https://www.jacionline.org/article/S0091-6749\(15\)01160-4/fulltext](https://www.jacionline.org/article/S0091-6749(15)01160-4/fulltext)
15. HHS: <https://www.hhs.gov/immunization/basics/safety/side-effects/index.html>