

# Diphtheria

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## What is diphtheria?

Diphtheria is a serious disease caused by a toxin (poison) made by bacteria. It causes a thick coating in the back of the nose or throat that makes it hard to breathe or swallow. It can be deadly. The DTaP vaccine protects against diphtheria.

## What are the symptoms of diphtheria?

Diphtheria starts with sore throat, mild fever (101 degrees or less), and chills.

Next, the diphtheria toxin makes a thick coating on the back of the nose or throat. It may be blue or grayish green. The coating makes it hard to breathe or swallow.

## How serious is diphtheria?

The coating on the throat can get so thick that it blocks the airway, so the person can't breathe.

The diphtheria toxin can attack the heart, causing abnormal heart rhythms and even heart failure. It can also attack the nerves, which leads to paralysis (unable to move parts of the body).

About 1 out of 10 people who get diphtheria dies. In children younger than 5 years, as many as 1 out of 5 children who get diphtheria dies.

## How does diphtheria spread?

Diphtheria spreads when an infected person coughs or sneezes. A person can spread the disease for up to 2 weeks after infection.

## What is the DTaP vaccine?

The DTaP vaccine is a shot that combines the vaccines for diphtheria and two other serious diseases: tetanus and whooping cough (pertussis). The vaccine helps the body to build up protection against the diphtheria toxin.

Most children (about 97 children out of 100) who get all doses of the vaccine will be protected against diphtheria.

## Benefits of the DTaP vaccine

- Saves lives.
- Protects young children from serious disease.
- Keeps others safe.

## Side effects of the DTaP vaccine

- The most common side effects are usually mild and occur in about 1 out of 4 children. They include the following:
  - Redness, swelling, and pain from the shot
  - Fever
  - Vomiting
- A fever over 105 degrees occurs in about 1 child out of 16,000 children.
- Nonstop crying for 3 hours or more occurs in about 1 child out of 1,000 children.
- Seizures (jerking or staring) occur in about 1 out of 14,000 children. The seizures do not cause long-term harm.
- Serious reaction to the DTaP vaccine occurs in fewer than 1 in a million children.

## Why should my child get the DTaP vaccine?

Getting your child the DTaP vaccine helps protect him against serious disease. It also helps stop the spread of disease in the community.

## When should my child get the DTaP vaccine?

Children should get five doses of the DTaP vaccine at the following ages for best protection:

- One dose each at 2 months, 4 months, and 6 months;
- A fourth dose at 15 through 18 months; and
- A fifth dose at 4 through 6 years of age.

It is safe to get the DTaP vaccine at the same time as other vaccines, even for babies.



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## Is the DTaP vaccine safe?

The DTaP vaccine is very safe, and it is effective at preventing diphtheria (along with two other serious diseases: tetanus and whooping cough). Vaccines, like any medicine, can have side effects. But severe side effects from the DTaP vaccine are very rare.

## If my child does not get the DTaP vaccine, will he get diphtheria?

Children who have not had the DTaP vaccine and are exposed to diphtheria could get sick.

Before the diphtheria vaccine, there were about 100,000 to 200,000 cases of diphtheria each year in the U.S. As many as 15,000 people died each year from the disease. Cases dropped quickly after the vaccine. In fact, in the last 10 years, only 5 cases have been reported per year in the U.S.

If we stopped vaccinating against diphtheria, cases could start to rise again. In other countries, when vaccination rates dropped, thousands of people got diphtheria.

## Diphtheria booster needed every 10 years to keep up protection

The diphtheria vaccine does not offer lifetime protection from the disease. Boosters are needed to keep up protection from diphtheria.

Children should get a booster vaccine called Tdap (which protects against tetanus, diphtheria, and whooping cough) once at 11 or 12 years of age.

Adults need a booster called the Td vaccine (for tetanus and diphtheria) every 10 years.

Adults should also receive a one-time shot of the Tdap vaccine in place of one Td shot.

## What can I do to protect my child from diphtheria?

- ✓ Vaccinate your child on time.
- ✓ Talk with your child's doctor if you have questions.
- ✓ Keep a record of your child's vaccinations to make sure your child is up-to-date.

## How can I learn more about the DTaP vaccine?

To learn more about the DTaP vaccine or other vaccines, talk to your child's doctor.

Call **800-CDC-INFO** (800-232-4636) or go to <http://www.cdc.gov/vaccines> and check out the following resources:

- Vaccines and Preventable Diseases—Diphtheria Vaccination: <http://www.cdc.gov/vaccines/vpd-vac/diphtheria/>
- Infant Immunizations FAQs: <http://www.cdc.gov/vaccines/parents/parent-questions.html>
- Vaccines website for parents: <http://www.cdc.gov/vaccines/parents>

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend all children receive the DTaP vaccine according to the recommended schedule.