Meningococcal Vaccines

What You Need to Know

1 What is meningococcal disease?

Meningococcal disease is a serious bacterial illness. It is a leading cause of bacterial meningitis in children 2 through 18 years old in the United States. Meningitis is an infection of the covering of the brain and the spinal cord.

Meningococcal disease also causes blood infections. About 1,000 – 1,200 people get meningococcal disease each year in the U.S. Even when they are treated with antibiotics, 10-15% of these people die. Of those who live, another 11%-19% lose their arms or legs, have problems with their nervous systems, become deaf, or suffer seizures or strokes.

Anyone can get meningococcal disease. But it is most common in infants less than one year of age and people 16-21 years. Children with certain medical conditions, such as lack of a spleen, have an increased risk of getting meningococcal disease. College freshmen living in dorms are also at increased risk.

Meningococcal infections can be treated with drugs such as penicillin. Still, many people who get the disease die from it, and many others are affected for life. This is why preventing the disease through use of meningococcal vaccine is important for people at highest risk.

2 Meningococcal vaccine

There are two kinds of meningococcal vaccine in the U.S.:

- Meningococcal conjugate vaccine (MCV4) is the preferred vaccine for people 55 years of age and younger.
- Meningococcal polysaccharide vaccine (MPSV4) has been available since the 1970s. It is the only meningococcal vaccine licensed for people older than 55.

Both vaccines can prevent 4 types of meningococcal disease, including 2 of the 3 types most common in the United States and a type that causes epidemics in Africa. There are other types of meningococcal disease; the vaccines do not protect against these.

3 Who should get meningococcal vaccine and when?

Routine Vaccination

Two doses of MCV4 are recommended for adolescents 11 through 18 years of age: the first dose at 11 or 12 years of age, with a booster dose at age 16.

Adolescents in this age group with HIV infection should get three doses: 2 doses 2 months apart at 11 or 12 years, plus a booster at age 16.

If the first dose (or series) is given between 13 and 15 years of age, the booster should be given between 16 and 18. If the first dose (or series) is given after the 16th birthday, a booster is not needed.

Other People at Increased Risk

- College freshmen living in dormitories.
- Laboratory personnel who are routinely exposed to meningococcal bacteria.
- U.S. military recruits.
- Anyone traveling to, or living in, a part of the world where meningococcal disease is common, such as parts of Africa.
- Anyone who has a damaged spleen, or whose spleen has been removed.
- Anyone who has persistent complement component deficiency (an immune system disorder).
- People who might have been exposed to meningitis during an outbreak.

Children between 9 and 23 months of age, and anyone else with certain medical conditions need 2 doses for adequate protection. Ask your doctor about the number and timing of doses, and the need for booster doses.

MCV4 is the preferred vaccine for people in these groups who are 9 months through 55 years of age. MPSV4 can be used for adults older than 55.
Some people should not get meningococcal vaccine or should wait.

- Anyone who has ever had a severe (life-threatening) allergic reaction to a previous dose of MCV4 or MPSV4 vaccine should not get another dose of either vaccine.
- Anyone who has a severe (life threatening) allergy to any vaccine component should not get the vaccine. **Tell your doctor if you have any severe allergies.**
- Anyone who is moderately or severely ill at the time the shot is scheduled should probably wait until they recover. Ask your doctor. People with a mild illness can usually get the vaccine.
- Meningococcal vaccines may be given to pregnant women. MCV4 is a fairly new vaccine and has not been studied in pregnant women as much as MPSV4 has. It should be used only if clearly needed. The manufacturers of MCV4 maintain pregnancy registries for women who are vaccinated while pregnant.

Except for children with sickle cell disease or without a working spleen, meningococcal vaccines may be given at the same time as other vaccines.

What are the risks from meningococcal vaccines?

A vaccine, like any medicine, could possibly cause serious problems, such as severe allergic reactions. The risk of meningococcal vaccine causing serious harm, or death, is extremely small.

Brief fainting spells and related symptoms (such as jerking or seizure-like movements) can follow a vaccination. They happen most often with adolescents, and they can result in falls and injuries.

Sitting or lying down for about 15 minutes after getting the shot – especially if you feel faint – can help prevent these injuries.

Mild problems

As many as half the people who get meningococcal vaccines have mild side effects, such as redness or pain where the shot was given.

If these problems occur, they usually last for 1 or 2 days. They are more common after MCV4 than after MPSV4.

A small percentage of people who receive the vaccine develop a mild fever.

Severe problems

Serious allergic reactions, within a few minutes to a few hours of the shot, are very rare.
**VACCINE INFORMATION STATEMENT**

**Td or Tdap (Tetanus-Diphtheria or Tetanus-Diphtheria-Pertussis) Vaccine**

**What You Need to Know**

1. **Why get vaccinated?**
   
   **Tetanus, diphtheria and pertussis** can be very serious diseases.

   **TETANUS (Lockjaw)** causes painful muscle spasms and stiffness, usually all over the body.
   
   - It can lead to tightening of muscles in the head and neck so the victim cannot open his mouth or swallow, or sometimes even breathe. Tetanus kills about 1 out of 5 people who are infected.

   **DIPHTHERIA** can cause a thick membrane to cover the back of the throat.
   
   - It can lead to breathing problems, paralysis, heart failure, and even death.

   **PERTUSSIS (Whooping Cough)** causes severe coughing spells which can lead to difficulty breathing, vomiting, and disturbed sleep.
   
   - It can lead to weight loss, incontinence, rib fractures and passing out from violent coughing. Up to 2 in 100 adolescents and 5 in 100 adults with pertussis are hospitalized or have complications, including pneumonia and death.

   These three diseases are all caused by bacteria. Diphtheria and pertussis are spread from person to person. Tetanus enters the body through cuts, scratches, or wounds.

   The United States saw as many as 200,000 cases a year of diphtheria and pertussis before vaccines were available, and hundreds of cases of tetanus. Since then, tetanus and diphtheria cases have dropped by about 99% and pertussis cases by about 92%.

   Children 6 years of age and younger get DTaP vaccine to protect them from these three diseases. But older children, adolescents, and adults need protection too.

2. **Vaccines for adolescents and adults: Td and Tdap**

   Two vaccines are available to protect people 7 years of age and older from these diseases:

   - **Td vaccine** has been used for many years. It protects against tetanus and diphtheria.
   - **Tdap vaccine** was licensed in 2005. It is the first vaccine for adolescents and adults that protects against pertussis as well as tetanus and diphtheria.

   A Td booster dose is recommended every 10 years. Tdap is given only once.

3. **Which vaccine, and when?**

   **Ages 7 through 18 years**

   - A dose of Tdap is recommended at age 11 or 12. This dose could be given as early as age 7 for children who missed one or more childhood doses of DTaP.

   - Children and adolescents who did not get a complete series of DTaP shots by age 7 should complete the series using a combination of Td and Tdap.

   **Age 19 years and Older**

   - All adults should get a booster dose of Td every 10 years. Adults under 65 who have never gotten Tdap should get a dose of Tdap as their next booster dose. Adults 65 and older may get one booster dose of Tdap.

   - Adults (including women who may become pregnant and adults 65 and older) who expect to have close contact with a baby younger than 12 months of age should get a dose of Tdap to help protect the baby from pertussis.

   - Healthcare professionals who have direct patient contact in hospitals or clinics should get one dose of Tdap.

   **Protection After a Wound**

   - A person who gets a severe cut or burn might need a dose of Td or Tdap to prevent tetanus infection. Tdap should be used for anyone who has never had a dose previously. Td should be used if Tdap is not available, or for:
     - anybody who has already had a dose of Tdap,
     - children 7 through 9 years of age who completed the childhood DTaP series, or
     - adults 65 and older.

   **Pregnant Women**

   - Pregnant women who have never had a dose of Tdap should get one, after the 20th week of gestation and preferably during the 3rd trimester. If they do not get Tdap during their pregnancy they should get a dose as soon as possible after delivery. Pregnant women who have previously received Tdap and need tetanus or diphtheria vaccine while pregnant should get Td.

   Tdap or Td may be given at the same time as other vaccines.

4. **Some people should not be vaccinated or should wait**

   - Anyone who has had a life-threatening allergic reaction after a dose of any tetanus, diphtheria, or pertussis containing vaccine should not get Td or Tdap.

   - Anyone who has a severe allergy to any component of a vaccine should not get that vaccine. Tell your doctor if the person getting the vaccine has any severe allergies.

   - Anyone who had a coma, or long or multiple seizures within 7 days after a dose of DTP or DTaP should not get Tdap, unless a cause other than the vaccine was found. These people may get Td.

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[Image of CDC logo]
Talk to your doctor if the person getting either vaccine:
- has epilepsy or another nervous system problem,
- had severe swelling or severe pain after a previous dose of DTP, DTap, DT, Td, or Tdap vaccine, or
- has had Guillain Barré Syndrome (GBS).

Anyone who has a moderate or severe illness on the day the shot is scheduled should usually wait until they recover before getting Tdap or Td vaccine. A person with a mild illness or low fever can usually be vaccinated.

**5 What are the risks from Tdap and Td vaccines?**

With a vaccine, as with any medicine, there is always a small risk of a life-threatening allergic reaction or other serious problem.

Brief fainting spells and related symptoms (such as jerking movements) can happen after any medical procedure, including vaccination. Sitting or lying down for about 15 minutes after a vaccination can help prevent fainting and injuries caused by falls. Tell your doctor if the patient feels dizzy or light-headed, or has vision changes or ringing in the ears.

Getting tetanus, diphtheria or pertussis disease would be much more likely to lead to severe problems than getting either Td or Tdap vaccine.

Problems reported after Td and Tdap vaccines are listed below.

**Mild Problems**
*(Noticeable, but did not interfere with activities)*

**Td**
- Pain (about 3 in 4 adolescents and 2 in 3 adults)
- Redness or swelling at the injection site (about 1 in 5)
- Mild fever of at least 100.4°F (up to about 1 in 25 adolescents and 1 in 100 adults)
- Headache (about 4 in 10 adolescents and 3 in 10 adults)
- Tiredness (about 1 in 3 adolescents and 1 in 4 adults)
- Nausea, vomiting, diarrhea, stomach ache (up to 1 in 4 adolescents and 1 in 10 adults)
- Chills, body aches, sore joints, rash, swollen glands (uncommon)

**Td**
- Pain (up to about 8 in 10)
- Redness or swelling at the injection site (up to about 1 in 3)
- Mild fever (up to about 1 in 15)
- Headache or tiredness (uncommon)

**Moderate Problems**
*(Interfered with activities, but did not require medical attention)*

**Td**
- Pain at the injection site (about 1 in 20 adolescents and 1 in 100 adults)
- Redness or swelling at the injection site (up to about 1 in 16 adolescents and 1 in 25 adults)
- Fever over 102°F (about 1 in 100 adolescents and 1 in 250 adults)
- Headache (1 in 300)
- Nausea, vomiting, diarrhea, stomach ache (up to 3 in 100 adolescents and 1 in 100 adults)

**Tdap or Td**
- Extensive swelling of the arm where the shot was given (up to about 3 in 100).

**Severe Problems**
*(Unable to perform usual activities; required medical attention)*

**Tdap or Td**
- Swelling, severe pain, bleeding and redness in the arm where the shot was given (rare).

A severe allergic reaction could occur after any vaccine. They are estimated to occur less than once in a million doses.

**6 What if there is a severe reaction?**

**What should I look for?**
Any unusual condition, such as a severe allergic reaction or a high fever. If a severe allergic reaction occurred, it would be within a few minutes to an hour after the shot. Signs of a serious allergic reaction can include difficulty breathing, weakness, hoarseness or wheezing, a fast heart beat, hives, dizziness, paleness, or swelling of the throat.

**What should I do?**
- Call a doctor, or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS website at www.vaers.hhs.gov, or by calling 1-800-822-7967.

**VAERS does not provide medical advice.**

**7 The National Vaccine Injury Compensation Program**

The National Vaccine Injury Compensation Program (VICP) was created in 1986.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling 1-800-338-2382 or visiting the VICP website at www.hrsa.gov/vaccinecompensation.

**8 How can I learn more?**
- Your doctor can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call 1-800-232-4636 (1-800-CDC-INFO) or
  - Visit CDC's website at www.cdc.gov/vaccines

**Vaccine Information Statement (Interim)**

**Td & Tdap Vaccines**

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