

Infection Prevention and You



Meningococcal disease: What you need to know

What is meningococcal disease?

Meningococcal disease is a very serious bacterial infection caused by the bacterium *Neisseria meningitidis*. It is a leading cause of **bacterial meningitis** in children ages 2 through 18 in the United States. Meningitis is an inflammation of the meninges, which are the membranes that enclose the brain and spinal cord.

High fever, headache, vomiting, stiff neck, and a rash are common symptoms of meningococcal disease. Among those who develop meningococcal disease, 10 to 15 percent die, despite treatment with antibiotics. Permanent brain damage, hearing loss, kidney failure, loss of arms or legs, or chronic nervous system problems can occur in those who survive.

Anyone can get meningococcal disease, but it is most common in infants less than one year of age and people with certain medical conditions, such as the lack of a spleen. Teenagers aged 15 to 19 and college freshmen who live in dormitories have a higher risk of getting meningococcal disease.

Fortunately, meningococcal disease is not as contagious as the common cold or the flu. The bacteria are spread by respiratory and throat secretions (from coughing, sneezing, or kissing). The bacteria are not spread by casual contact or by simply breathing the air where a person with meningitis has been.

Two types of meningococcal vaccines are available in the United States. Meningococcal conjugate vaccine (MCV4) is the preferred vaccine for those aged 2 to 55. Meningococcal polysaccharide vaccine (MPSV4) may be used if MCV4 is not available; it is also licensed for people older than 55. Both vaccines work well, and protect approximately 90 percent of those who get vaccinated. Meningococcal vaccines may be given at the same time as other vaccines.

Who needs to be vaccinated?

- **Children between ages 2 and 10**
- **Adolescents and adults, ages 11 to 55**
 - The MCV4 vaccine is recommended for **all children** at their routine preadolescent visit (11 to 12 years of age). For those who have never received MCV4 previously, a dose is recommended upon high school entry.
 - All adolescents should receive a **booster dose** at age 16.
- **Adults over 55, who are at high risk of contracting meningococcal disease**
 - This includes anyone traveling to, or living in, a part of the world where meningococcal disease is common (such as parts of Africa); people with any type of immune system disorder; and people who have a damaged spleen or no spleen. Meningococcal vaccines may also be given to pregnant women.

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The following people are at high-risk for meningococcal disease and should get vaccinated:

- College freshmen living in a dormitory
- Military recruits
- Anyone with a damaged spleen or no spleen
- Anyone with an immune system disorder
- Microbiologists who are routinely exposed to *Neisseria meningitidis* (the bacteria that causes meningococcal disease)
- Anyone traveling or residing in countries in which the disease is common

Who should **NOT** be vaccinated?

- Anyone who has ever had a severe (life-threatening) **allergic reaction** to a previous dose of either meningococcal vaccine or any vaccine component should not get vaccinated.
- Anyone who is **moderately or severely ill** at the time the shot is scheduled should probably wait until recovered. People with a mild illness can usually get the vaccine.
- Anyone who has ever had **Guillain-Barré Syndrome** should discuss the vaccine with his/her provider.

What you need to know about vaccine safety

As with all vaccines, there can be minor reactions, including pain and redness at the injection site, headache, fatigue or a vague feeling of discomfort. The risk of meningococcal vaccine causing serious harm, or death, is extremely small. A serious nervous system disorder called Guillain-Barré Syndrome has been reported among some people who have received the MCV4 vaccine. This happens so rarely that the Centers for Disease Control and Prevention (CDC) cannot determine if the vaccine might be a factor. The risk for developing Guillain-Barré Syndrome is extremely small.

How can you prevent meningococcal disease?

The most effective way to prevent meningococcal disease is to keep up to date with recommended immunizations. Maintaining healthy habits, like getting plenty of rest and avoiding close contact with people who are sick, can also help.

Additional resources

CDC—Meningococcal Vaccine Information Statement <http://www.cdc.gov/vaccines/hcp/vis/vis-statements/mening.html>

CDC—Vaccines and Immunizations <http://www.cdc.gov/vaccines/parents/index.html>

CDC—Parent's Guide to Childhood Immunizations <http://www.cdc.gov/vaccines/pubs/parents-guide/default.htm>

CDC—Child & Adolescent Immunization Schedule <http://www.cdc.gov/vaccines/schedules/index.html>

American Academy of Pediatrics—Immunizations <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunization/Pages/default.aspx>

Updated: 2/25/2016