Indiana State Department of Health | Epidemiology Resource Center

Quick Facts

About… Meningococcal Disease

What is meningococcal disease?

Neisseria meningitidis bacteria are normally found in the nose and throat of 10 – 15% of healthy adults. There are 5 strains of *Neisseria meningitidis* responsible for most disease. Rarely, the bacteria can enter areas of the body where bacteria are normally not found and cause a severe, life-threatening infection ("invasive disease") known as meningococcal disease. Examples of meningococcal disease include meningitis (infection of the lining of the brain and spinal cord) and septicemia (bloodstream infection). This is a very rare disease; around 30 cases are reported each year in the state of Indiana

How is meningococcal disease spread?

The disease is not spread by casual contact or by attending the same work or school setting. *Neisseria meningitidis* bacteria are spread from person to person *only through* contact with droplets from an infected person's nose or throat, including saliva. Some common ways the bacteria can be spread from an infected person are:

- Living in the same household or dormitory room
- Kissing on the lips
- Sharing drinks from the same container (glasses, cups, water bottles)
- Sharing eating with utensils (forks and spoons)
- Sharing a toothbrush, cigarettes, or lipstick

Preventive antibiotic therapy is recommended for individuals who are close contacts of or provide medical care to someone who has meningococcal disease.

Who is at risk for meningococcal disease?

Young infants, students attending high school or college, and military recruits are more likely to get the disease. Individuals with a weakened immune system are

also at higher risk for the disease, as well as those who live in crowded dwellings or have household exposure to cigarette smoke.

What are the symptoms of meningococcal disease?

Symptoms of meningococcal disease include:

- Fever (sudden onset)
- Severe headache
- Stiff neck
- Drowsiness or confusion
- Skin rash that appears as bruising or bleeding under the skin
- Nausea and vomiting
- Eyes that are sensitive to light

In babies, the symptoms are more difficult to identify but may include:

- Fever
- Fretfulness or irritability
- Poor appetite
- Difficulty in waking the baby

How is meningococcal disease diagnosed?

If you have any of the above symptoms, it is important to seek medical attention immediately. An infected person may become sick within a few hours of developing symptoms, and early diagnosis is important. Your health care provider may collect blood or spinal fluid to see if meningococcal bacteria are present.

How can meningococcal disease be treated?

Meningococcal disease is treated with several different types of antibiotics, and early treatment may reduce the risk of complications or death from the disease. A 24-hour course of antibiotic therapy reduces a person's likelihood of spreading the bacteria. Supportive care in an intensive care unit may be necessary for those with severe infection, and surgery may be needed to remove damaged tissue and stop the spread of infection.

How is meningococcal disease prevented?

Meningococcal disease can be prevented by good hygiene. Cover the nose and mouth when sneezing or coughing, throw away used tissues, and wash hands often. Do not share eating or drinking utensils with anyone.

Is there a vaccine that can prevent this disease?

There are two types of vaccine that protect against 4 of the 5 common strains of this disease. One type, MCV4, is available for use in people ages 9 months to 55 years old. The second type, MPSV4, is recommended for adults 56years and older who are at elevated risk. Ask your healthcare provider which one is right for you. A dose of MCV4 vaccine is recommended for adolescents at age 11 or 12 years old, with a booster dose at age 16. Indiana requires that all 6th-12th grade students receive 1 dose of MC4 meningococcal vaccine. Meningococcal vaccine is also recommended for other people at increased risk for meningococcal disease, such as:

- College freshmen living in dormitories
- U. S. military recruits
- Travelers to countries where meningococcal disease is common, such as parts of Africa or the Hajj in Saudi Arabia
- Anyone with a damaged spleen, or whose spleen has been removed
- Persons with certain medical conditions that affect their immune system (check with your health care provider)
- Microbiologists who are routinely exposed to meningococcal bacteria

Revaccination is recommended for children and adults with ongoing risk factors for meningococcal disease. For information on the availability of meningococcal vaccine, contact your health care provider or local health department.

There is no vaccine available for infants under 9 months of age, or for 1 of the common strains, meningococcal B disease.

All information presented is intended for public use. For more information, please refer to the Centers for Diseases and Control and Prevention (CDC) meningitis website at: http://www.cdc.gov/meningitis/about/index.html

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