

FACTS ABOUT MENINGOCOCCAL DISEASE

Meningococcal Disease Snapshot

- Meningococcal disease is a rare, but potentially deadly, bacterial infection that can take the form of meningitis (an inflammation of the membranes surrounding the brain and spinal cord) or meningococemia (a blood infection).
- Teenagers and college students account for nearly 30 percent of all reported cases of meningococcal disease in the U.S.
- This infection is caused by *Neisseria meningitidis*, a potentially life-threatening bacterium.
- There are five clinically relevant meningococcal serogroups (or strains) circulating worldwide: A, B, C, Y and W-135. Serogroups B, C and Y cause most disease in the U.S., but serogroup distribution changes over time.
- The disease affects nearly 3,000 Americans annually and approximately 10 percent of people who contract meningococcal disease will die.
- Of those who survive, nearly 20 percent suffer long-term disabilities, including brain damage, loss of hearing, organ failure and limb amputations.

Meningococcal Disease Among Teenagers and College Students

- Teenagers and college students have an unusually high death rate from the disease; nearly one of every four cases may result in death.
- Lifestyle factors common among teenagers and college students are believed to put them at increased risk of contracting meningococcal disease. These lifestyle factors include crowded living situations (e.g., dormitories, sleep-away camps), active or passive smoking and irregular sleeping habits.

Immunization Recommendations for Teenagers and College Students

- The U.S. Centers for Disease Control and Prevention recommends routine meningococcal disease immunization with the conjugate meningococcal vaccine at the preadolescent doctor's visit (11 to 12 years old).
- For those teenagers who have not been previously vaccinated, immunization also is recommended at high school entry, as well as for incoming college freshmen living in dormitories (only one shot required).
- CDC recommendations also state that all other teenagers and college students who wish to decrease their risk of meningococcal disease may elect to receive the vaccine.
- Influential medical organizations, including the American Academy of Pediatrics, American Academy of Family Physicians and American College Health Association, also have issued meningococcal immunization recommendations targeting adolescents and college students.

Vaccination to Prevent Meningococcal Disease

- A conjugate vaccine was recently licensed by the U.S. Food and Drug Administration for adolescents and adults (aged 11 to 55 years) to protect against four of the five strains of bacterium that cause meningococcal disease.

- In persons 15 to 24 years of age, up to 83 percent of cases are caused by potentially vaccine-preventable strains.
- Medical experts anticipate the new meningococcal conjugate vaccine may provide longer protection against the disease. The previous meningococcal polysaccharide vaccine provided protection for three to five years.
- Vaccination with the conjugate vaccine is safe. The most commonly reported reactions are pain, redness and induration at the injection site (1 to 2 days), headache, fatigue and malaise.
- Clinical studies on the use of the conjugate meningococcal vaccine in children under age 11 and adults over 55 years are ongoing. For those in these age groups at increased risk of contracting meningococcal disease, the older polysaccharide vaccine is a safe and effective option (only offers 3-5 years of protection).

Transmission and Symptoms of the Disease

- Meningococcal bacteria are transmitted through air droplets and/or by direct contact with secretions from infected persons (e.g., through coughing or kissing). The majority of meningococcal disease cases occur in winter and early spring.
- Meningococcal disease is often misdiagnosed, since symptoms are similar to those of common viral illnesses. Symptoms may include high fever, headache, stiff neck, nausea, vomiting, sensitivity to light, confusion, sleepiness, and in some cases, a rash.

For More Information

The following Web sites provide more information about meningococcal disease and immunization:

- American Academy of Family Physicians, www.aafp.org
- American Academy of Pediatrics, www.aap.org
- Centers for Disease Control and Prevention (CDC), www.cdc.gov
- Meningitis Foundation of America, www.musa.org
- National Association of School Nurses (NASN), www.nasn.org
- National Foundation for Infectious Diseases, www.nfid.org
- National Meningitis Association, www.nmaus.org

For additional information contact your health care provider, your School Nurse or the Marin County Health Department.