

Meningitis Disease Fact Sheet

Meningitis is an inflammation of the membranes that surround the brain and spinal cord. Viral or bacterial organisms can cause this illness. Meningococcal meningitis is an acute bacterial disease, characterized by sudden onset, with fever, intense headache, nausea and possibly vomiting, stiff neck and sometimes a purple/red spotted rash. If the rash develops, it often occurs later in the illness. Symptoms can escalate rapidly, often progressing to full-blown illness in 12 to 24 hours. Medical evaluation of symptoms should be sought at onset to help establish a definitive diagnosis and initiate treatment as soon as possible. It is important to remember that viral agents cause the vast majority of cases of meningitis. The natural history of the viral form of this illness is generally favorable, with full recovery without the use of antibiotics. However, because it is clinically difficult to distinguish viral from the less common bacterial cases, suspected cases of meningitis are usually hospitalized. Antibiotics are usually initiated pending the results of cultures of the spinal fluid that are generally needed to make a conclusive diagnosis. Prophylactic administration of antibiotics is also indicated for any close contacts.

Close contact with an ill person is defined as participating in activities that involve an exchange of saliva (kissing or other intimate contact, sharing of food, utensils or oral personal hygiene items, etc.) For the type of meningitis of special concern to students, the meningococcus organism is present in the nasopharynx of a significant proportion of healthy individuals (5 to 10% of people may be asymptomatic carriers). Transmission is via respiratory exposure or direct contact with secretions (saliva). It remains poorly understood why a tiny fraction of the population develops this illness while many people carry this bacterium around without any ill effect. In those who are susceptible, the incubation period varies from 2 to 10 days. Illness most commonly occurs 3 to 4 days after exposure.

The most recent recommendation from the Center for Disease Control (CDC) and the American College Health Association was for all college freshman to be immunized for meningococcal meningitis as it is more common among newly aggregated adults in communal living settings. The vaccine provides protection from some, but not all, of the serotypes of bacteria that can cause Meningococcal meningitis. It has an efficacy rate of about 90% for these serotypes in persons over the age of five years. The annual incidence of meningococcal infection in college students is estimated to be about 1.3 per 100,000 students. Like many other communicable diseases, some of the most important preventive measures are centered on simple good hygiene:

- To protect others, always cover the nose and mouth when coughing or sneezing
- Dispose of used tissues and other similar objects appropriately
- Do not share glasses, eating utensils, etc. – those on athletic teams should not share water bottles, cups, etc.
- Do not share personal hygiene items such as toothbrushes, bathroom glasses etc.
- Wash hands frequently – very, very important!

Additional information on meningitis may be found at http://www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm

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