

## Neisseria meningitides

This invasive bacterial infection is manifested by an abrupt onset of fever, chills, fatigue, and a rash that initially can be red or appear like blood blisters. The progression of this disease is rapid, and in severe cases the person may develop shock which progresses into coma and death if the appropriate antibiotic therapy is not begun early in the course of illness. The fatality rate for this disease in all age groups remains at 10%, and the mortality in adolescents approaches 25%. Long term complications of this disease occur in 11 to 19% of patients and include hearing loss, neurologic disability, digit or limb amputation, and skin scarring. This bacterial infection is transmitted person-to-person through droplets from respiratory secretions. Often this organism remains colonized in the upper respiratory tract for an undefined period of time and can be the source for widespread infection. Since the introduction of the Hib vaccine, this bacteria has become the leading cause of bacterial meningitis in young children and remains an important cause of sepsis. Incubation time is 1 to 10 days; however, usually less than 4 days.

As soon as symptoms develop, the patient should be hospitalized and treated with high dose IV antibiotics. The risk of contracting invasive disease among contacts of the infected individual is often great and therefore preventative antibiotics are usually given to households and close contacts.

The Menactra vaccine was developed in the year 2005 and is recommended for all children between the ages of 11 and 12. If they have not received the vaccine at this time, they should receive it prior to entering high school. A booster dose should be given prior to college students who plan to live in dormitories. Common reaction to this vaccine include localized pain, headache, and fatigue. These symptoms are usually mild and last for 1 to 2 days. Other rare side effects include pain, swelling, and redness at the injection site.