

# **Meningococcal Disease**

## **What is meningococcal disease?**

Meningococcal disease is a severe bacterial infection of the bloodstream or meninges (a thin lining covering the brain and spinal cord) caused by the meningococcus germ.

## **Who gets meningococcal disease?**

Anyone can get meningococcal disease, but it is more common in infants and children. For some adolescents, such as first-year college students living in dormitories, there is an increased risk of meningococcal disease. Every year in the United States, approximately 2,500 people are infected and 300 die from the disease. Other persons at increased risk include household contacts of a person known to have had this disease, immunocompromised people, and people traveling to parts of the world where meningococcal meningitis is prevalent.

## **How is the meningococcus germ spread?**

The meningococcus germ is spread by direct close contact with nose or throat discharges of an infected person.

## **What are the symptoms?**

High fever, headache, vomiting, stiff neck and a rash are symptoms of meningococcal disease. The symptoms may appear two to 10 days after exposure, but usually within five days. Among people who develop meningococcal disease, 10 to 15 percent die in spite of treatment with antibiotics. Of those who live, permanent brain damage, hearing loss, kidney failure, loss of arms or legs, or chronic nervous system problems can occur.

## **What is the treatment for meningococcal disease?**

Antibiotics, such as penicillin G or ceftriaxone, can be used to treat people with meningococcal disease.

## **Should people who have been in contact with a diagnosed case of meningococcal meningitis be treated?**

Only people who have been in close contact (household members, intimate contacts, health care personnel performing mouth-to-mouth resuscitation, daycare center playmates, etc.) need to be considered for preventive treatment. Such people are usually advised to obtain a prescription for a special antibiotic (either rifampin, ciprofloxacin or ceftriaxone) from their physician. Casual contact as might occur in a regular classroom, office or factory setting is not usually significant enough to cause concern.

## **Is there a vaccine to prevent meningococcal meningitis?**

In February 2005, the CDC recommended a new vaccine, known as Menactra™, for use to prevent meningococcal disease. The previous version of this vaccine, Menomune™, was first available in the United States in 1985. Both vaccines are 85 to 100 percent effective in preventing the four kinds of the meningococcus germ (types A, C, Y, W-135). These four types cause about 70 percent of the disease in the United States.

Because the vaccine does not include type B, which accounts for about one-third of cases in adolescents, it does not prevent all cases of meningococcal disease.

**Is the vaccine safe? Are there adverse side effects to the vaccine?**

Both vaccines are currently available and both are safe and effective vaccines. However, both vaccines may cause mild and infrequent side effects, such as redness and pain at the injection site lasting up to two days.

**Who should get the meningococcal vaccine?**

The vaccine is recommended for all adolescents entering middle school (11-12 years old) and high school (15 years old), and all first-year college students living in dormitories. Also at increased risk are people with terminal complement deficiencies or asplenia, some laboratory workers, and travelers to endemic areas of the world. However, the vaccine will benefit all teenagers and young adults in the United States.

**What is the duration of protection from the vaccine?**

Menomune™, the older vaccine, requires booster doses every three to five years. Although research is still pending, the new vaccine, Menactra™, will probably not require booster doses. As with any vaccine, vaccination against meningitis may not protect 100 percent of all susceptible individuals.

**How do I get more information about meningococcal disease and vaccination?**

Contact your family physician or your student health service.