
MENINGOCOCCAL (MENINGITIS) DISEASE

What is meningococcal disease?

Meningococcal disease is caused by bacteria called *Neisseria meningitidis*. It can lead to serious blood infections. When the linings of the brain and spinal cord become infected, it is called meningitis. The disease strikes quickly and can have serious complications, including death.

There are at least 12 types of *N. meningitidis*, called “serogroups.” Serogroups A, B, C, W, and Y cause most meningococcal disease.

Anyone can get meningococcal disease but certain people are at increased risk, including:

- Infants younger than one year old
- Adolescents and young adults 16 through 23 years old
- People with certain medical conditions that affect the immune system
- Microbiologists who routinely work with isolates of *N. meningitidis*
- People at risk because of an outbreak in their community

Even when it is treated, meningococcal disease kills 10 to 15 infected people out of 100. And of those who survive, about 10 to 20 out of every 100 will suffer disabilities such as hearing loss, brain damage, kidney damage, amputations, nervous system problems, or severe scars from skin grafts.

Anyone can get meningococcal disease. Some people are at higher risk. This disease occurs more often in people who are:

- Teenagers or young adults
- Infants younger than one year of age
- Living in crowded settings, such as college dormitories or military barracks
- Traveling to areas outside of the United States, such as the “meningitis belt” in Africa

- Living with a damaged spleen or no spleen or having sickle cell disease
- Being treated with the medication Soliris® or, who have complement component deficiency (an inherited immune disorder)
- Exposed during an outbreak
- Working with meningococcal bacteria in a laboratory

What are the symptoms?

Symptoms appear suddenly – usually 3 to 4 days after a person is infected. It can take up to 10 days to develop symptoms. Symptoms may include:

- A sudden high fever
- Headache
- Stiff neck (meningitis)
- Nausea and vomiting
- Red-purple skin rash
- Weakness and feeling very ill
- Eyes sensitive to light

How is meningococcal disease spread?

It spreads from person-to-person by coughing or coming into close or lengthy contact with someone who is sick or who carries the bacteria. Contact includes kissing, sharing drinks, or living together. Up to one in 10 people carry meningococcal bacteria in their nose or throat without getting sick.

Is there treatment?

Early diagnosis of meningococcal disease is very important. If it is caught early, meningococcal disease can be treated with antibiotics. But, sometimes the infection has caused too much damage for antibiotics to prevent death or serious long-term problems. Most people need to be cared for in a hospital due to serious, life-threatening infections.

What are the complications?

Ten to fifteen percent of those who get meningococcal disease die. Among survivors, as many as one in five will have permanent disabilities. Complications include:

- Hearing loss
- Brain damage
- Kidney damage
- Limb amputations

What should I do if I or someone I love is exposed?

If you are in close contact with a person with meningococcal disease, talk with your healthcare provider about the risk to you and your family. Your healthcare provider can prescribe an antibiotic to prevent the disease.

What is the best way to prevent meningococcal disease?

The single best way to prevent this disease is to be vaccinated.

Serogroup B meningococcal (MenB)

vaccines can help prevent meningococcal disease caused by serogroup B.

Meningococcal ACWY vaccine can help prevent meningococcal disease caused by serogroups A, C, W, and Y.

Vaccines are available for people 6 weeks of age and older. Various vaccines offer protection against the five major strains of bacteria that cause meningococcal disease:

- All teenagers should receive two doses of vaccine against strains A, C, W and Y, also known as MenACWY or MCV4 vaccine. The first dose is given at 11 to 12 years of age, and the second dose (booster) at 16 years. It is very important that teens receive the booster dose at age 16 years in order to protect them through the years when they are at greatest risk of meningococcal disease.

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- Teens and young adults can also be vaccinated against the “B” strain, also known as MenB vaccine. Talk to your healthcare provider about whether they recommend vaccine against the “B” strain. Others who should receive meningococcal vaccines include:

- a) Infants, children, and adults with certain medical conditions
- b) People exposed during an outbreak
- c) Travelers to the “meningitis belt” of sub-Saharan Africa
- d) Military recruits

Please ask your healthcare provider to know if you may be at increased risk

Who should NOT be vaccinated?

Some people should not get meningococcal vaccine or they should wait.

- Tell your doctor if you have any severe allergies. Anyone who has ever had a severe allergic reaction to a previous dose of meningococcal vaccine should not get another dose of the vaccine.
- Anyone who has a severe allergy to any component in the vaccine should not get the vaccine.
- Anyone who is moderately or severely ill at the time the shot is scheduled should probably wait until they are better. People with a mild illness can usually get the vaccine.
- Tell your doctor if you are pregnant or breastfeeding. There is not much information about the potential risks of the Serogroup B vaccine for pregnant women or breastfeeding mothers. The CDC advises that the Serogroup B vaccine should only be administered during pregnancy if clearly needed.

Risks of the Meningococcal ACWY vaccine reaction:

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own within a few days, but serious reactions are also possible.

As many as half of the people who get meningococcal ACWY vaccine have **mild problems** following vaccination, such as redness or soreness where the shot was given. If these problems occur, they usually last for 1 or 2 days.

A small percentage of people who receive the vaccine experience muscle or joint pains.

Risks of the Serogroup B Meningitis vaccine reaction

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own within a few days, but serious reactions are also possible.

More than half of the people who get serogroup B meningococcal vaccine have mild problems following vaccination. These reactions can last up to 3 to 7 days, and include:

- Soreness, redness, or swelling where the shot was given
- Tiredness or fatigue
- Headache
- Muscle or joint pain
- Fever or chills
- Nausea or diarrhea

Other problems that could happen after these vaccines:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting and injuries caused by a fall. Tell your provider if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get shoulder pain that can be more severe and longer-lasting than the more routine soreness that can follow injections. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

Additional Resources

- Meningococcal Disease – Centers for Disease Control and Prevention (CDC)
- Meningococcal Vaccination – CDC
- Meningococcal ACIP Vaccine Recommendations
- Travel and Meningococcal Disease
- Information about Vaccine-Preventable Diseases

For Information on where to get vaccinated for Meningococcal Disease, please click on the link below:

www.vaccines.gov/getting/where

For information on costs for the Meningococcal , please click on the link below or refer to the NYFA Immunization Policy for lists of conveniently located immunization clinics to the FL, LA, and NY campuses.

www.vaccines.gov/getting/pay

References

The Meningococcal Disease Fact Sheet, NY State Department of Health

Vaccine Information Statement: Serogroup B Meningococcal Vaccine (8/9/2016)
42 U.S.C. § 300aa-26, Department of Health and Human Services, Centers for Disease Control and Prevention

Vaccine Information Statement (Interim): Meningococcal ACWY Vaccines, 8/24/2018,
42 U.S.C. § 300aa-26, Department of Health and Human Services, Centers for Disease Control and Prevention