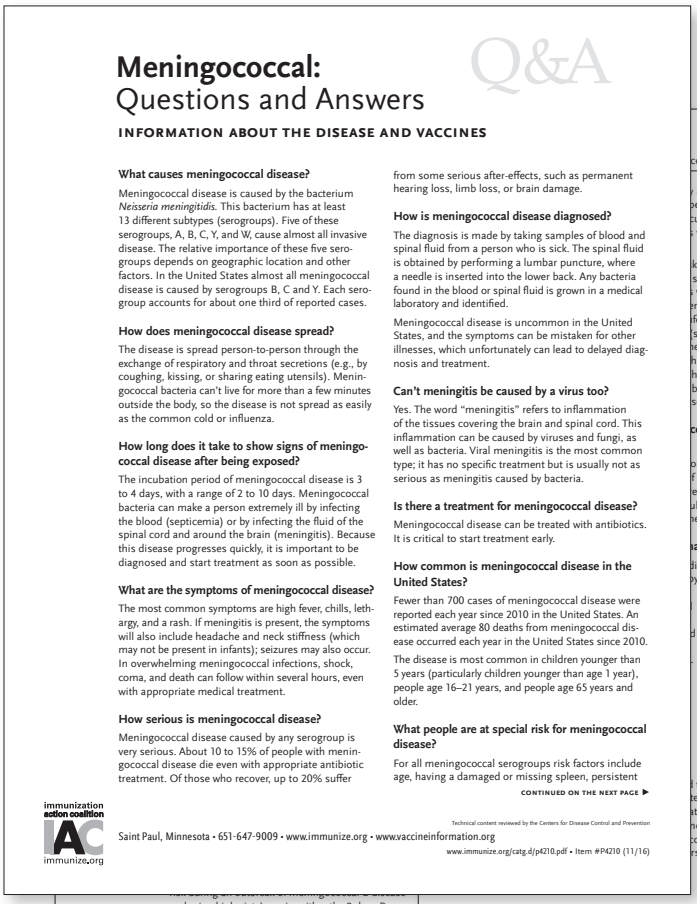
Newly Updated Meningococcal Q&As: Download and Copy for Your Patients



Meningococcal: Questions and Answers

Q&A

INFORMATION ABOUT THE DISEASE AND VACCINES

What causes meningococcal disease?

Meningococcal disease is caused by the bacterium *Neisseria meningitidis*. This bacterium has at least 13 different subtypes (serogroups). Five of these serogroups, A, B, C, Y, and W, cause almost all invasive disease. The relative importance of these five serogroups depends on geographic location and other factors. In the United States almost all meningococcal disease is caused by serogroups B, C and Y. Each serogroup accounts for about one third of reported cases.

How does meningococcal disease spread?

The disease is spread person-to-person through the exchange of respiratory and throat secretions (e.g., by coughing, kissing, or sharing eating utensils). Meningococcal bacteria can't live for more than a few minutes outside the body, so the disease is not spread as easily as the common cold or influenza.

How long does it take to show signs of meningococcal disease after being exposed?

The incubation period of meningococcal disease is 3 to 4 days, with a range of 2 to 10 days. Meningococcal bacteria can make a person extremely ill by infecting the blood (septicemia) or by infecting the fluid of the spinal cord and around the brain (meningitis). Because this disease progresses quickly, it is important to be diagnosed and start treatment as soon as possible.

What are the symptoms of meningococcal disease?

The most common symptoms are high fever, chills, lethargy, and a rash. If meningitis is present, the symptoms will also include headache and neck stiffness (which may not be present in infants); seizures may also occur. In overwhelming meningococcal infections, shock, coma, and death can follow within several hours, even with appropriate medical treatment.

How serious is meningococcal disease?

Meningococcal disease caused by any serogroup is very serious. About 10 to 15% of people with meningococcal disease die even with appropriate antibiotic treatment. Of those who recover, up to 20% suffer from some serious after-effects, such as permanent hearing loss, limb loss, or brain damage.

How is meningococcal disease diagnosed?

The diagnosis is made by taking samples of blood and spinal fluid from a person who is sick. The spinal fluid is obtained by performing a lumbar puncture, where a needle is inserted into the lower back. Any bacteria found in the blood or spinal fluid is grown in a medical laboratory and identified.

Meningococcal disease is uncommon in the United States, and the symptoms can be mistaken for other illnesses, which unfortunately can lead to delayed diagnosis and treatment.

Can't meningitis be caused by a virus too?

Yes. The word "meningitis" refers to inflammation of the tissues covering the brain and spinal cord. This inflammation can be caused by viruses and fungi, as well as bacteria. Viral meningitis is the most common type; it has no specific treatment but is usually not as serious as meningitis caused by bacteria.

Is there a treatment for meningococcal disease?

Meningococcal disease can be treated with antibiotics. It is critical to start treatment early.

How common is meningococcal disease in the United States?

Fewer than 700 cases of meningococcal disease were reported each year since 2010 in the United States. An estimated average 80 deaths from meningococcal disease occurred each year in the United States since 2010.

The disease is most common in children younger than 5 years (particularly children younger than age 1 year), people age 16–21 years, and people age 65 years and older.

What people are at special risk for meningococcal disease?

For all meningococcal serogroups risk factors include age, having a damaged or missing spleen, persistent

CONTINUED ON THE NEXT PAGE ▶

immunization action coalition IAC immunize.org

Technical content reviewed by the Centers for Disease Control and Prevention

Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p4210.pdf • Item #P4210 (11/16)

...(an immune system ...people taking the ...cupation as a micro- ...s with meningococcal ...k for meningococcal ...serogroup B. These ...s where meningococ- ...ertain countries in ...fection, and college ...(see question below ...her risk factors for ...having a previous ...household, having ...being exposed to ...second-hand).

...ccur in other parts

...oughout the world, ...f Africa known as the ...esponsible for most ...ub-Saharan Africa. ...he United States.

...an once?

...different serogroups ...y other bacteria ...d to a person with ...ted by being started ...tely (ideally within ...nosed). This is usu- ...contacts and children ...ersery school. Older children and adults (e.g., who are in the same school or church) aren't usually considered exposed unless they have had very close contact with the infected person (e.g., kissing or sharing a glass).

In addition to the antibiotic treatment, vaccination may be recommended for people 2 months of age and older if the person's infection is caused by meningococcus serogroup A, C, Y, or W-135, which are contained in 3 of the 5 meningococcal vaccines available in the United States.

What meningococcal vaccines are available in the United States?

There are 3 types of meningococcal vaccine available in the United States. Vaccines for meningococcal serogroups A, C, W and Y represent 2 of the 3 types. One is composed of polysaccharide (sugar molecules) from the surface of the meningococcal bacteria. The other meningococcal vaccines (MenACWY) are those in which the polysaccharide is chemically bonded ("conjugated") to a protein. These produce better protection and are more effective in young children than the original polysaccharide vaccine. A third type are vaccines for meningococcal serogroup B (MenB), which are composed of proteins also found in the surface of the bacteria. No type of vaccine contains live meningococcal bacteria.

Meningococcal polysaccharide or conjugate vaccines provide no protection against serogroup B disease and

Meningococcal Vaccines Licensed in U.S.

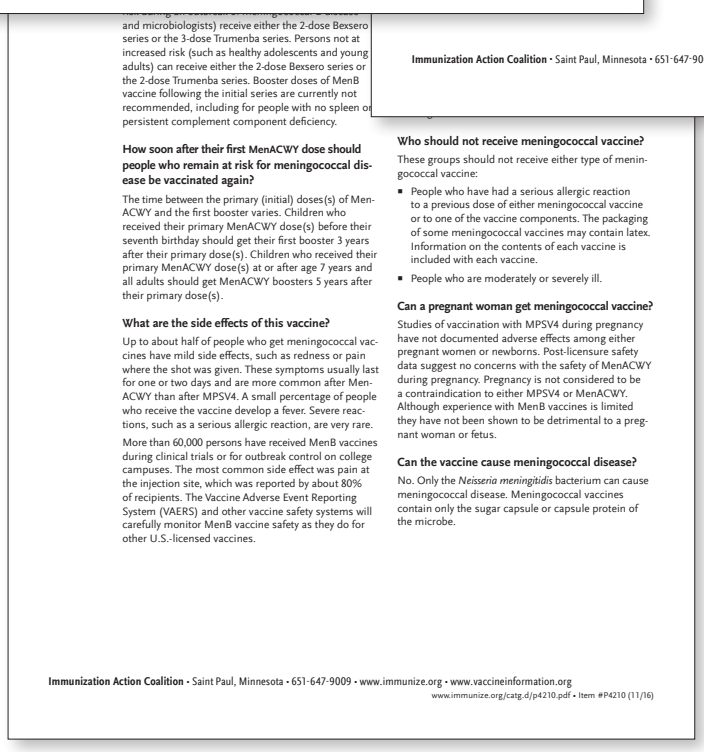
TRADE NAME	TYPE OF VACCINE	SEROGROUPS INCLUDED	YEAR LICENSED	APPROVED AGES
Menomune	Polysaccharide	A, C, W, Y	1981	2 years and older
Menactra	Conjugate	A, C, W, Y	2005	9 months–55 years*
Menveo	Conjugate	A, C, W, Y	2010	2 months–55 years*
Trumenba	Protein	B	2014	10–25 years†
Bexsero	Protein	B	2015	10–25 years†

*may be given to people age 56 years or older
†may be given to people age 26 years or older

MenB vaccines provide no protection against serogroup A, C, W or Y disease. For protection against all 5 serogroups of meningococcus it is necessary to receive meningococcal conjugate or polysaccharide (that contain serogroup A, C, W, and Y) and a MenB vaccine.

CONTINUED ON THE NEXT PAGE ▶

Immunization Action Coalition • Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p4210.pdf • Item #P4210 (11/16)



and microbiologists) receive either the 2-dose Bexsero series or the 3-dose Trumenba series. Persons not at increased risk (such as healthy adolescents and young adults) can receive either the 2-dose Bexsero series or the 2-dose Trumenba series. Booster doses of MenB vaccine following the initial series are currently not recommended, including for people with no spleen or persistent complement component deficiency.

How soon after their first MenACWY dose should people who remain at risk for meningococcal disease be vaccinated again?

The time between the primary (initial) doses(s) of MenACWY and the first booster varies. Children who received their primary MenACWY dose(s) before their seventh birthday should get their first booster 3 years after their primary dose(s). Children who received their primary MenACWY dose(s) at or after age 7 years and all adults should get MenACWY boosters 5 years after their primary dose(s).

What are the side effects of this vaccine?

Up to about half of people who get meningococcal vaccines have mild side effects, such as redness or pain where the shot was given. These symptoms usually last for one or two days and are more common after MenACWY than after MPSV4. A small percentage of people who receive the vaccine develop a fever. Severe reactions, such as a serious allergic reaction, are very rare.

More than 60,000 persons have received MenB vaccines during clinical trials or for outbreak control on college campuses. The most common side effect was pain at the injection site, which was reported by about 80% of recipients. The Vaccine Adverse Event Reporting System (VAERS) and other vaccine safety systems will carefully monitor MenB vaccine safety as they do for other U.S.-licensed vaccines.

Who should not receive meningococcal vaccine?

These groups should not receive either type of meningococcal vaccine:

- People who have had a serious allergic reaction to a previous dose of either meningococcal vaccine or to one of the vaccine components. The packaging of some meningococcal vaccines may contain latex. Information on the contents of each vaccine is included with each vaccine.
- People who are moderately or severely ill.

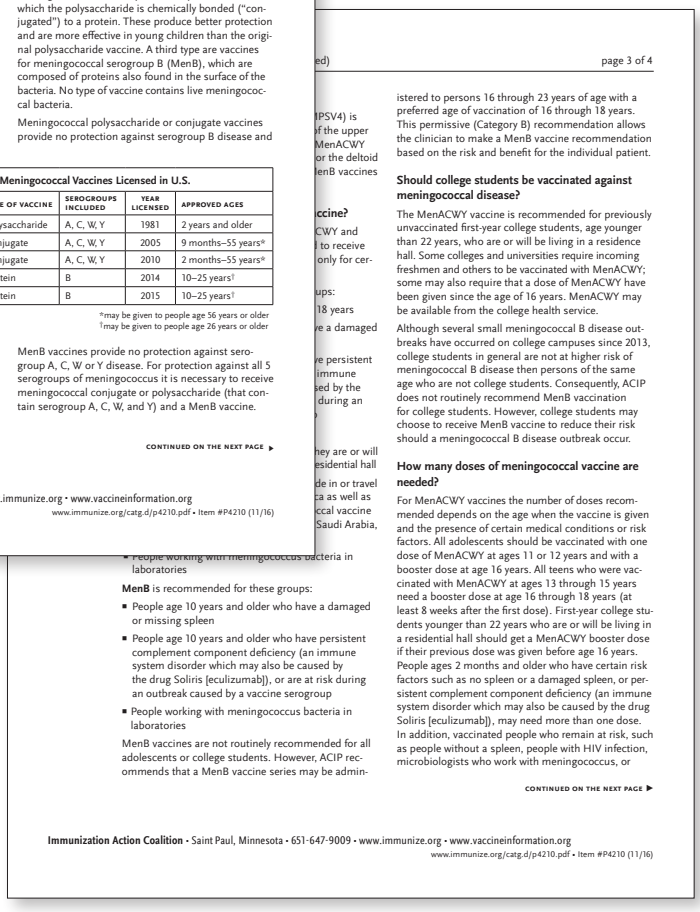
Can a pregnant woman get meningococcal vaccine?

Studies of vaccination with MPSV4 during pregnancy have not documented adverse effects among either pregnant women or newborns. Post-licensure safety data suggest no concerns with the safety of MenACWY during pregnancy. Pregnancy is not considered to be a contraindication to either MPSV4 or MenACWY. Although experience with MenB vaccines is limited they have not been shown to be detrimental to a pregnant woman or fetus.

Can the vaccine cause meningococcal disease?

No. Only the *Neisseria meningitidis* bacterium can cause meningococcal disease. Meningococcal vaccines contain only the sugar capsule or capsule protein of the microbe.

Immunization Action Coalition • Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p4210.pdf • Item #P4210 (11/16)



...PSV4) is ...f the upper ...MenACWY ...or the deltoid ...enB vaccines

...ccine? ...CWY and ...l to receive ...only for cer-

...ups: ...18 years ...e a damaged

...e persistent ...immune ...ed by the ...during an

...ney are or will ...esidential hall ...de in or travel ...ca as well as ...ccal vaccine ...Saudi Arabia,

...People working with meningococcus bacteria in laboratories

MenB is recommended for these groups:

- People age 10 years and older who have a damaged or missing spleen
- People age 10 years and older who have persistent complement component deficiency (an immune system disorder which may also be caused by the drug Soliris [eculizumab]), or are at risk during an outbreak caused by a vaccine serogroup
- People working with meningococcus bacteria in laboratories

MenB vaccines are not routinely recommended for all adolescents or college students. However, ACIP recommends that a MenB vaccine series may be administered to persons 16 through 23 years of age with a preferred age of vaccination of 16 through 18 years. This permissive (Category B) recommendation allows the clinician to make a MenB vaccine recommendation based on the risk and benefit for the individual patient.

Should college students be vaccinated against meningococcal disease?

The MenACWY vaccine is recommended for previously unvaccinated first-year college students, age younger than 22 years, who are or will be living in a residence hall. Some colleges and universities require incoming freshmen and others to be vaccinated with MenACWY; some may also require that a dose of MenACWY have been given since the age of 16 years. MenACWY may be available from the college health service.

Although several small meningococcal B disease outbreaks have occurred on college campuses since 2013, college students in general are not at higher risk of meningococcal B disease then persons of the same age who are not college students. Consequently, ACIP does not routinely recommend MenB vaccination for college students. However, college students may choose to receive MenB vaccine to reduce their risk should a meningococcal B disease outbreak occur.

How many doses of meningococcal vaccine are needed?

For MenACWY vaccines the number of doses recommended depends on the age when the vaccine is given and the presence of certain medical conditions or risk factors. All adolescents should be vaccinated with one dose of MenACWY at ages 11 or 12 years and with a booster dose at age 16 years. All teens who were vaccinated with MenACWY at ages 13 through 15 years need a booster dose at age 16 through 18 years (at least 8 weeks after the first dose). First-year college students younger than 22 years who are or will be living in a residential hall should get a MenACWY booster dose if their previous dose was given before age 16 years. People ages 2 months and older who have certain risk factors such as no spleen or a damaged spleen, or persistent complement component deficiency (an immune system disorder which may also be caused by the drug Soliris [eculizumab]), may need more than one dose. In addition, vaccinated people who remain at risk, such as people without a spleen, people with HIV infection, microbiologists who work with meningococcus, or

CONTINUED ON THE NEXT PAGE ▶

Immunization Action Coalition • Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p4210.pdf • Item #P4210 (11/16)

This 4-page Q&A for patients is ready for you to hand out in your medical setting.

Visit www.immunize.org/catg.d/p4210.pdf

▶ For IAC's ready-to-print Q&As about all vaccine-preventable diseases, visit www.immunize.org/handouts/vaccine-questions.asp