

Meningococcal B Vaccine: IAC Answers Your Questions

For complete information on CDC's recommendations for the use of meningococcal vaccine, go to www.immunize.org/acip

Experts from the Immunization Action Coalition (IAC) answer your questions about meningococcal serogroup B (MenB) vaccine. You'll find additional Q&As about meningococcal B vaccine on the "Ask the Experts" section of immunize.org at www.immunize.org/askexperts/experts_meningococcal_b.asp

Which meningococcal vaccines are available in the United States?

There are 2 types of meningococcal vaccine available in the United States. One type of vaccine (MenACWY) contains the surface polysaccharides of meningococcal serogroups A, C, W and Y chemically bonded (conjugated) to a protein. This vaccine is recommended for all adolescents at 11–12 years and a second dose at 16 years. A second 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 or intact meningococcal bacteria.

MenACWY vaccines provide no protection against serogroup B disease and 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 a MenACWY and a MenB vaccine.

Which individuals in risk groups are recommended to be vaccinated against meningococcal serogroup B disease?

CDC's Advisory Committee on Immunization Practices (ACIP) recommends routine MenB vaccination of the following individuals in certain risk 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) or taking a complement inhibitor (Soliris [eculizumab] or Ultomiris [revulizumab])

- People age 10 years and older who are at risk during a serogroup B meningococcal outbreak
- Microbiologists who work with meningococcus bacteria in a laboratory

Which individuals are recommended to be vaccinated against meningococcal serogroup B disease who are not in risk groups?

ACIP recommends that a MenB vaccine series may be administered to people 16 through 23 years of age with a preferred age of vaccination of 16 through 18 years, subject to shared clinical decision-making (SCDM). SCDM gives clinicians an opportunity to discuss the value of MenB vaccination with their patients to make a decision together about the individual's need or desire for the vaccine based on risks, benefits, and wish for protection from the disease.

What information should healthy people age 16 through 23 years and their healthcare provider consider when deciding on the use of MenB vaccine?

Considerations for shared clinical decision-making for vaccination against meningococcal B disease include:

- MenB disease is serious, with high rates of death and disability.
- MenB disease is rare (about 34 cases per year in people age 16 through 23 years in the U.S.).
- Risk of MenB disease is higher among college students, especially those who are freshmen, attend a 4-year university, live on campus, or participate in fraternities or sororities.
- MenB vaccines protect against most serogroup B strains.
- MenB vaccines provide short-term protection, with protective antibody levels declining within 1–2 years.
- MenB vaccines may prevent illness but a vaccinated person may still carry the serogroup B bacteria in their nose.

Should college students be vaccinated against meningococcal B disease?

With widespread use of MenACWY vaccines, the risk for meningococcal disease among college students is greatest for serogroup B, although serogroup B disease in this group is still rare. College students ages 16 through 23 may choose to receive MenB vaccine to reduce their risk of MenB disease.

Should international travelers receive both meningococcal conjugate vaccine and meningococcal serogroup B vaccine?

Travelers are not considered to be a group at increased risk for serogroup B meningococcal disease and are not recommended to receive serogroup B vaccine. Meningococcal conjugate vaccine (MenACWY) continues to be recommended for certain international travelers.

What is the schedule for administering the primary series of MenB vaccine?

Bexsero is a 2-dose series with dose #2 given at least 1 month after dose #1. Trumenba is either a 2-dose series with doses administered at least 6 months apart or a 3-dose series with dose #2 administered at 0, 1–2 months, and 6 months. The ACIP recommends that persons at increased risk of meningococcal serogroup B disease (complement component deficiency, complement inhibitor use (taking Soliris [eculizumab] or Ultomiris [ravulizumab]), functional or anatomic asplenia, at risk during an outbreak of meningococcal B disease and microbiologists who handle meningococcal isolates) 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. If the second dose of Trumenba is administered earlier than 6 months after dose #1, a third dose should be administered at least 4 months after dose #2.

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Can the MenB series be completed with a different MenB brand from the one the series was begun with?

No. MenB vaccines are not interchangeable. All doses must be of the same brand. If a person who has received one or more doses of MenB vaccine in the past needs vaccination but the brand of previous doses is unknown or unavailable, restart the primary series with the available brand.

Can meningococcal conjugate (MenACWY) and MenB vaccines be given at the same visit?

Yes. MenACWY and MenB vaccines can be given at the same visit or at any time before or after the other.

Which groups of patients should receive a booster dose of MenB vaccine after completion of the series?

People age 10 years and older with a damaged or missing spleen, persistent complement component deficiency (an immune system disorder) or who use a complement inhibitor (Soliris [eculizumab] or Ultomiris [revulizumab]), and microbiologists who handle meningococcal isolates should

receive booster doses after their primary series as long as they remain at increased risk. The first booster dose is recommended 1 year after completion of the primary series, followed by a booster dose every 2-3 years thereafter, as long as increased risk remains. Because MenB brands are not interchangeable, the booster doses must be of the same brand as the primary series. If the primary series brand is unknown or unavailable, restart the primary series with the available brand.

Previously vaccinated people who are determined by public health officials to be at risk due to a serogroup B outbreak should receive a booster dose if it has been 1 or more years since completion of their primary series. Depending upon the outbreak conditions, public health authorities may recommend a booster dose as little as 6 months after completion of the primary series. Do not delay vaccination during an outbreak if the primary series brand is unknown. However, if the primary series brand is unknown or is not the same as the outbreak dose, to ensure optimal protection, the recipient should return at least 4 weeks later to receive a booster dose of the primary

series brand or to proceed with completing the primary series of the brand used in the outbreak response.

What are the contraindications and precautions to MenB vaccine?

The only contraindication is a severe allergic reaction (such as anaphylaxis) to a previous dose or to a vaccine component. Precautions include moderate to severe acute illness (defer until resolved) and pregnancy.

What adverse reactions have been reported after MenB vaccine?

For both MenB vaccines, the most common adverse reactions observed in clinical trials were local reactions, including pain at the injection site (83%–85%), redness, and swelling.

REFERENCE

Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices. *MMWR*, 2020;69(No. RR-9):1-41. Available at www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6909a1-H.pdf.