

# Meningococcal B Vaccine:

## IAC Answers Your Questions

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](http://immunize.org) at [www.immunize.org/askexperts/experts\\_meningococcal\\_b.asp](http://www.immunize.org/askexperts/experts_meningococcal_b.asp)

### Which meningococcal vaccines are available in the United States?

Since 2005, two brands of meningococcal conjugate vaccines (MenACWY, Menactra, Sanofi Pasteur; Menveo, GSK) in which the polysaccharide is chemically bonded ("conjugated") to a protein to produce better protection, are available to provide protection against meningococcal serogroups A, C, W, and Y.

More recently, two meningococcal type B (MenB) vaccines (Bexsero, GSK; Trumenba, Pfizer) have become available that offer protection from meningococcal serogroup B disease. These vaccines are composed of proteins also found on the surface of the bacteria. Both MenB vaccines are approved by the Food and Drug Administration for use in persons 10 through 25 years of age.

MenACWY provides no protection against serogroup B disease and meningococcal serogroup B vaccines (MenB) provide no protection against serogroup A, C, W, or Y disease. For protection against all 5 serogroups of meningococcus, it is necessary to receive MenACWY and MenB vaccines.

### 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 functional or anatomic asplenia

- People age 10 years and older who have persistent complement component deficiency, including people taking eculizumab (Soliris) or revlizumab (Ultomiris)
- People age 10 years and older who are at risk during an outbreak caused by a vaccine serogroup, such as on a college campus
- Microbiologists who work with meningococcus bacteria in a laboratory

MenB vaccination of persons older than 25 years is an off-label use. For these high-risk groups, clinicians should use these vaccines off-label since it would be of benefit to their patients.

### 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. MenB vaccination is covered by the Vaccines for Children Program for anyone who is eligible. Under the Affordable Care Act, private insurance must also cover the costs of recommended vaccines that appear on the CDC immunization schedules.

### What is the difference between a Category A recommendation and shared clinical decision-making?

A Category A recommendation is made for all persons in an age- or risk-factor-based group. The meningococcal conjugate vaccine recommendation for all preteens at 11–12 years of age is an example of a Category A recommendation. A recommendation based

on shared clinical decision-making (SCDM) does not apply to everyone, but in the context of a clinician-patient interaction, vaccination may be found to be appropriate for a person as noted above for MenB vaccination of healthy adolescents.

### Should college students be vaccinated against meningococcal B disease?

Although several small meningococcal serogroup B disease outbreaks have occurred on college campuses since 2013, college students in general are not at higher risk of meningococcal B disease than 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 of serogroup B meningococcal 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 (residents of and travelers to sub-Saharan Africa and the Hajj in Saudi Arabia).

### What is the schedule for administering 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 ana-

tomic asplenia, at risk during an outbreak of meningococcal B disease 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. 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.

**What is the least amount of time allowable between doses (minimum intervals) when administering either of the MenB vaccines?**

The minimum interval between dose 1 and dose 2 of the Bexsero vaccine is 4 weeks. The minimum interval between dose 1 and dose 2 of the Trumenba 2-dose schedule is 6 months. The minimum interval between dose 1 and dose 2 of the 3-dose Trumenba schedule is 4 weeks. The minimum interval between dose 2 and dose 3 of the Trumenba 3-dose schedule is 4 months.

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

No. You may not switch MenB vaccines in order to complete a series. The series must be started and completed with the same MenB brand.

**I have a patient who was given Trumenba in August. Two months later she was given a dose of Bexsero. How should I proceed with her MenB vaccination series? We stock both vaccines.**

Since the ACIP meningococcal serogroup B vaccine recommendations state that the same vaccine must be used for all doses in the MenB series, the clinician needs to complete a series with one or the other vaccine. If a non-high risk person has already received 1 dose of Bexsero and 1 of Trumenba, then pick a brand and finish a recommended schedule with that brand. Ignore the extra dose of the other product that was already admin-

istered. If you choose to use Bexsero, it should be separated from the previous dose of Bexsero by one month. If you choose to use Trumenba, it should be separated from the previous dose of Trumenba by 6 months.

**We have a 1-year-old with congenital asplenia. He already received a series of meningococcal conjugate vaccine. Should we also give him MenB vaccine?**

Use of either meningococcal serogroup B vaccine in persons younger than age 10 years is off-label in the U.S. There is currently no ACIP recommendation for use of this vaccine for this age group.

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

Yes. Meningococcal conjugate 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 ages 10 years and older with complement deficiency, complement inhibitor use, asplenia, or who are microbiologists should receive a MenB booster 1 year following the completion of a MenB primary series, and then boosters every 2–3 years thereafter, for as long as increased risk remains. For persons age 10 years and older who are determined by public health officials to be at increased risk during an outbreak, ACIP recommends a one-time booster dose if it has been 1 or more years since completion of a MenB primary series. A booster dose interval of 6 months or more may be considered by public health officials depending on the specific outbreak, vaccination strategy, and projected duration of elevated risk.

**By what route should meningococcal B vaccines be administered?**

MenB vaccines are given by the intramuscular route.

**What are the contraindications and precautions to MenB vaccine?**

As with all vaccines, a severe allergic reaction to a vaccine component or a reaction following a prior dose is a contraindication to subsequent doses. The tip caps of the Bexsero pre-filled syringes contain natural rubber latex which may cause allergic reactions in latex-sensitive individuals. The only precaution for administering MenB vaccine is the presence of a moderate or severe acute illness. Vaccination should be deferred until the illness improves.

**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%), erythema, and swelling.

**How should MenB vaccines be stored?**

MenB vaccines should be stored refrigerated at 2°C to 8°C (36°F to 46°F). Do not freeze the vaccines. Discard any vaccine that has been exposed to freezing temperature. Protect the vaccine from light.

**REFERENCES**

- CDC. Use of Serogroup B Meningococcal Vaccines in Persons Aged  $\geq 10$  Years at Increased Risk for Serogroup B Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices, 2015. *MMWR* 2016;64(No.22):608–12. Available at [www.cdc.gov/mmwr/preview/mmwrhtml/mm6422a3.htm?s\\_cid=mm6422a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6422a3.htm?s_cid=mm6422a3_w)
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