

# Serogroup B Meningococcal (MenB) Vaccines

## Information for Providers



Two serogroup B meningococcal (MenB) vaccines have been licensed by the Food and Drug Administration. Each vaccine has its own schedule:

- Bexsero® is given as a 2-dose series, with the interval between doses at least 1 month apart.
- Trumenba® is currently recommended as a
  - 3-dose series at 0, 1-2, and 6 months for those at increased risk of MenB disease,
  - 2 doses at least 6 months apart for healthy persons 16 through 23 years of age who are not at increased risk for MenB disease

The same vaccine brand should be used for all doses in a series.

### 1. Who is currently recommended to receive MenB vaccine?

MenB vaccine is recommended routinely for people 10 years or older who are at increased risk for serogroup B meningococcal infections, including anyone:

- At risk during an outbreak of MenB disease
- Whose spleen is damaged or has been removed (functional or anatomic asplenia), including those with sickle cell disease
- With persistent complement component deficiency, a rare immune system condition.
- Taking a drug called eculizumab (also called Soliris®)
- Routinely exposed to isolates of *N. meningitidis* (e.g., microbiologists).

MenB vaccine may also be given to anyone 16 through 23 years old to provide short-term protection against most strains of MenB disease; 16 through 18 years are the preferred ages for vaccination.

### 2. What is the incidence of MenB disease in persons 16 through 23 years?

The risk of meningococcal disease increases during late adolescence and early adulthood, but is still low overall. From 2006-2015, 88 Californians who were 16-23 years of age were reported to have serogroup B meningococcal disease, and 6 died. Because the serogroup is not always known, actual numbers may be higher than reported. To help protect this age group, the preferred age for MenB vaccine is between 16 and 18 years of age.

The incidence of MenB disease in infants has been at least five times greater compared to the rate in adolescents and young adults; however, as of 2016 MenB vaccines are licensed in the U.S. only for persons 10 years of age or older.

### 3. Does quadrivalent meningococcal conjugate vaccine (MenACWY or MCV4, trade names Menactra® or Menveo®) protect against serogroup B disease?

No. MenACWY (MCV4) vaccines don't protect against serogroup B meningococcal disease but do protect against serogroup A, C, W-135 and Y disease. Please check immunization records and orders carefully to avoid errors.

### 4. Why aren't MenB vaccines routinely recommended for all adolescents, in contrast to MenACWY (MCV4) vaccines?

Before making broader recommendations for MenB vaccine, the federal Advisory Committee on Immunization Practices (ACIP) determined that given the current low incidence of meningococcal disease, additional data are needed regarding:

- The breadth of strain coverage by MenB vaccines; available data suggest the vaccines will protect against the majority of MenB strains currently circulating in the United States.
- Additional safety data (information to date is reassuring).
- Vaccine effectiveness
- Duration of protection; available data suggest short-term protection
- The impact of MenB vaccines on nasopharyngeal carriage and herd immunity.

Given the severity of MenB disease and the safety of the vaccine, ACIP agreed that MenB vaccine may be given based on clinical judgement to adolescents who are not at higher risk of MenB disease.



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### 5. How does the composition of the different meningococcal vaccines affect their coverage?

MenACWY (MCV4) vaccines are based on capsular polysaccharides. The antibody response to the capsular polysaccharides in the vaccine is broadly protective against strains throughout the US.

In contrast, MenB vaccines are based on surface proteins that have greater variation between circulating strains. As a result, MenB vaccines are believed to be effective against most, but not all, MenB strains. Additional data on the breadth of MenB vaccine coverage are expected in the future.

### 6. Given recent MenB outbreaks at colleges or universities, why is the recommendation for MenB vaccine not limited to college students?

Up to half of recent MenB disease cases in Californians aged 18–23 years did not attend college. Also, it may not be possible to identify at age 16-18 years all persons who will eventually attend college.

### 7. During outbreaks, what additional measures are needed for persons who have previously received MenB vaccine?

At this time, the duration of protection from MenB vaccine is unknown. Therefore, immunization now with MenB vaccine may not avoid the need later for antibiotic chemoprophylaxis or booster vaccination after future exposures to MenB disease; specific guidance will depend on the type of exposure and available information on the duration of immunity.

### 8. Is it possible to become ill with MenB disease after immunization?

Yes, immunization is not expected to be 100% effective. Consider the possibility of meningococcal disease when evaluating patients with consistent signs and symptoms, even if they have been previously immunized with MenB or MenACWY (MCV4) vaccines.

### 9. In addition to persons with the conditions identified in question #1, who else might benefit from MenB vaccine?

Any adolescent or young adult who wishes to receive short-term protection against most strains of serogroup B disease may be vaccinated.

Risk factors for meningococcal disease include

- Crowded living conditions
- Exposure to tobacco or marijuana smoke, or
- Attending parties, clubs and other crowded settings

<sup>1</sup>CDC. Use of Serogroup B Meningococcal (MenB) Vaccines in Persons Aged  $\geq 10$  Years at Increased Risk for Serogroup B Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices, 2015.

<sup>2</sup>CDC. Use of Serogroup B Meningococcal Vaccines in Adolescents and Young Adults: Recommendations of the Advisory Committee on Immunization Practices, 2015.