

Meningococcal Vaccine Q & A for Healthcare Providers

Available Meningitis Vaccines:

The most current comprehensive recommendations from the Advisory Committee on Immunization Practices (ACIP) for meningococcal vaccines is available on the MMWR website at <https://www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6909a1-H.pdf>. This document replaces all previously published reports and policy notes.

Trade Name	Type of Vaccine	Serogroups	Year Licensed	Approved Ages
Menactra	Conjugate	A, C, W, Y	2005	9 mos.–55 years*
Menveo	Conjugate	A, C, W, Y	2010	2 mos.–55 years*
MenQuadfi	Conjugate	A, C, W, Y	2020	2 years and older
Trumenba	Protein	B	2014	10–25 years*
Bexsero	Protein	B	2015	10–25 years*

*May be given to adults at increased risk older than the FDA-approved upper age limit (see ACIP recommendations, Table 11, page 41, www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6909a1-H.pdf)

School Meningococcal Vaccine Requirements:

Q1: When did the school meningococcal vaccine requirement take effect?

A1: The meningococcal vaccine school requirement took effect on September 1, 2016.

Q2: For what grades is meningococcal vaccine required?

A2: Meningococcal vaccine is currently required for students entering or attending grades 7 through 12 in public, private, and parochial New York State (NYS) schools.

Q3: How many doses of meningococcal vaccine are required for grades 7 through 11?

A3: One dose of meningococcal conjugate vaccine (MenACWY; sometimes abbreviated as MCV4; brand names Menactra, Menveo, or MenQuadfi) is required for entry into grades 7 through 11.

Q4: How many doses of meningococcal vaccine are required for grade 12?

A4: A total of two doses of MenACWY vaccine, administered a minimum of 8 weeks apart, are required for entry into grade 12. The second dose must be administered **no sooner than 16 years of age**. However, if the first dose of MenACWY vaccine was received at 16 years of age or older, then a second dose will not be required. The NYS school immunization requirements allow for a grace period of up to 4 days before the 16th birthday for receipt of the dose. **A dose of vaccine received 5 or more days before the 16th birthday will not meet the 12th grade meningococcal vaccine requirement.**

<https://www.immunize.org/catg.d/p2018.pdf>

Q5: Is serogroup B meningococcal vaccine (MenB vaccine) required for grade 12?

A5: No, MenB vaccine is not required for school attendance in NYS. In addition, doses of

MenB vaccine will not meet the NYS MenACWY vaccine requirement. MenB-FHbp (Trumenba) and MenB-4C (Bexsero) are the available MenB vaccines.

Q6: If a student received a dose of meningococcal vaccine prior to 7th grade, will they need an additional dose to enter 7th grade?

A6: The minimum age for MenACWY for grade 7 is 10 years of age. If the student's previous dose of MenACWY was given before age 10, it will not meet the 7th grade requirement and they would need an additional dose. Students with high-risk medical conditions (e.g., complement component deficiency or asplenia) will not be required to receive additional booster doses in order to enter 7th grade, but it is recommended that healthcare providers review their immunization histories and administer any vaccine doses that are due or overdue. Any dose of MenACWY vaccine received on or after 6 weeks of age will meet the grade 10 through 12 requirements in the 2022-2023 school year, however the requirement will roll out over additional grades in the coming years.

Q7: Is serology acceptable as evidence of immunity to meningococcal disease instead of vaccination?

A7: No. The Centers for Disease Control and Prevention (CDC) does not recognize any serologic tests as useful for determining immunity to meningococcal disease. Serologic evidence of immunity to meningococcal disease will not meet the meningococcal vaccine requirement for school in NYS. There are no acceptable serologic titers that can be used as evidence of protection against meningococcal A, C, W, and Y disease. In addition, the immunologic studies used for licensing purposes (serum bactericidal assay, SBA) are likely different from the serologic titers obtained at a doctor's office (IgG antibody, for example). It is not clear what sort of testing is shown in the results you sent. However, even if SBA results are available, they cannot be used to assess whether there is a level of protection at the individual level.

Q8: If an immunization record just says, "meningococcal vaccine", will it meet the school meningococcal vaccine requirements?

A8: Healthcare providers completing school immunization records should specify the meningococcal vaccine that was given, if known. Doses of MenACWY will satisfy the school immunization requirement, but doses of MenB will not. Schools will review available information to attempt to determine the specific vaccine that was given, but if a school is unable to determine the vaccine given, then the student might need to be revaccinated to attend school.

MenACWY Vaccine:

Q1: Are Menveo, Menactra and MenQuadfi interchangeable?

A1: Yes, Menveo, Menactra and MenQuadfi are interchangeable so long as they are used within their licensed approved ages. Menveo and Menactra are interchangeable for individuals aged 9 months and older, and Menveo, Menactra and MedQuadfi are interchangeable for individuals aged 2 years and older.

Q2: Why do older adolescents need a booster dose of MenACWY vaccine if they received

a first dose in their early teens?

A2: Although MenACWY vaccine is highly effective within 1 year of vaccination, the immune response to this vaccine declines by 3-5 years after vaccination. The risk of meningococcal disease peaks at ages 16-21 years, so an adolescent who was vaccinated at 11 or 12 years of age may not be sufficiently protected by the start of the higher risk years. For that reason, all adolescents should get a booster dose of MenACWY vaccine at 16 years of age or older in order to protect them throughout the higher risk years.

Q3: Should healthcare providers delay vaccination until just before entering college to maximize protection?

A3: There is a common misconception that only college students need MenACWY vaccine. In fact, the risk of meningococcal disease begins to peak at 16 years of age, before college entry for most students. Delaying vaccination until college entry leaves adolescents vulnerable to meningococcal disease at the start of their highest risk years.

Q4: Why do we give the first dose of MenACWY at age 11-12 years when disease peaks at ages 16-21 years?

A4: Although disease peaks at ages 16-21 years, cases do occur among younger adolescents. Administering a first dose at age 11-12 years with a booster dose at age 16 years is estimated to prevent twice the number of cases and deaths from meningococcal disease compared with a single dose at age 15 years, and with a similar cost effectiveness profile. In addition, serological studies demonstrate a strong immune response to a booster dose of MenACWY vaccine given 3-5 years after the first dose, with comparable safety to the first dose.

Q5: If a teen received a first dose of MenACWY vaccine at age 16 years, should they receive a second dose to complete the series?

A5: No. The booster (second) dose of MenACWY vaccine is not recommended nor required for adolescents who received a first dose on or after their 16th birthday.

Q6: If a teen received a first dose of MenACWY vaccine at age 15 years, should they receive a second dose to complete the series?

A6: Yes. Adolescents who received a first dose of MenACWY vaccine before their 16th birthday should receive a booster (second) dose at 16 years of age or older, a minimum of 8 weeks after the first dose, for 12th grade entry.

Q7: If a healthy teen received 2 doses of MenACWY vaccine before 16 years of age, will they need a third dose?

A7: Yes. The CDC recommends that all healthy teens have a booster dose of MenACWY vaccine on or after the 16th birthday, regardless of the number of doses received before 16 years of age. If the second dose was received more than 4 days before the 16th birthday then a third dose, received a minimum of 8 weeks after the second dose, will be required for grade 12.

Q8: For which high-risk groups is MenACWY vaccine recommended?

A8: In addition to the routine age-based recommendations, the following high-risk groups are recommended to receive MenACWY vaccine:

- Persons with a rare type of immune disorder called complement component deficiency
- Persons taking a type of medicine called a complement inhibitor (for example, Soliris® or Ultomiris®)
- Persons who have a damaged spleen or sickle cell disease, or their spleen has been removed
- Persons with HIV infection
- Persons who are traveling to or residing in countries in which serogroup A, C, W, or Y meningococcal disease is common
- Persons who are part of a population identified to be at increased risk because of a serogroup A, C, W, or Y meningococcal disease outbreak
- Persons who are not up to date with this vaccine and are a first-year college student living in a residence hall
- Military recruits
- Persons who are routinely exposed to *Neisseria meningitidis* in a lab

The dosing schedule depends on the indication, age and vaccine used. For specific recommendations refer to the Advisory Committee on Immunization Practices (ACIP) recommended immunization schedules located at: <https://www.cdc.gov/vaccines/schedules/hcp/index.html>

Persons who remain at increased risk and completed the primary dose or series at age:

- **2 mos-6 yrs:** Should receive additional dose of MenACWY 3 yrs after primary immunization; boosters should be repeated every 5 yrs thereafter.
- **≥7 yrs:** Should receive additional dose of MenACWY 5 yrs after primary immunization; boosters should be repeated every 5 yrs thereafter.

Healthcare providers are encouraged to call the NYSDOH if they have any questions about the high-risk recommendations. The NYSDOH Bureau of Immunization Medical Director is available for consultation upon request.

Q9: Some students who come to NYS from other countries were vaccinated in their country of origin with vaccines against one (A or C) or two (A and C) strains of meningococcal disease. Will MenA, MenC, or MenAC vaccines meet NYS school meningococcal vaccine requirements?

A9: No. MenA, MenC, and MenAC vaccines provide no protection against meningococcal serogroup Y, which causes approximately one-third of cases of meningococcal disease in the United States. Students entering grades 7 through 12 who received MenA, MenC or MenAC vaccine will still need to receive MenACWY vaccine in order to meet NYS school meningococcal vaccine requirements. MenACWY vaccine can be given at any time after receiving MenA, MenC or MenAC vaccine.

MenB Vaccine:

Q1: When should we recommend MenB vaccine for healthy patients?

A1: A MenB vaccine series may be administered to healthy young people 16 through 23 years of age based on shared clinical decision-making between the clinician, patient and/or parent or guardian. The preferred age of MenB vaccination is 16 through 18 years.

Q2: For which high-risk groups is MenB vaccine recommended?

A2: The following high-risk groups are recommended to receive MenB vaccine:

- Persons who have a rare type of immune disorder called complement component deficiency
- Persons taking a type of medicine called a complement inhibitor (for example, Soliris® or Ultomiris®)
- Persons who have a damaged spleen or sickle cell disease, or their spleen has been removed
- Persons who are part of a population identified to be at increased risk because of a serogroup B meningococcal disease outbreak

Q3: What MenB vaccines are available?

A3: There are two MenB vaccines licensed for use among persons aged 10-25 years, Bexsero and Trumenba. MenB vaccine can be used when indicated. However, the two MenB vaccines are not interchangeable, and the same vaccine product must be used for all doses in a series.

Q4: What is the interval between doses of Bexsero and Trumenba?

A4: Bexsero is given as a 2-dose series, with doses administered at least 1 month apart. Trumenba is given as a 2- or 3-dose series. For healthy young adults, who are not in a high-risk group, two doses should be administered at 0 and 6 months. If the second dose is administered earlier than 6 months, a third dose should be given at least 4 months after the second dose. For persons in an identified high-risk group, three doses should be administered at 0, 1-2, and 6 months. If the second dose is given at an interval ≥ 6 months after the first dose, a third dose is not needed.

Q5: Can you administer MenACWY and MenB at the same visit?

A5: Yes, MenACWY and MenB can be given at the same visit or at any time before or after each other.

Q6: Is it safe to give MenB vaccine along with other vaccines?

A6: MenB vaccine may be administered at the same visit as other adolescent vaccines, but at a different anatomic site, if feasible.

Q7: Is MenB approved by the State Education Department for administration using a non-patient specific order?

A7: The State Education Department authorizes registered nurses and pharmacists to administer any vaccine against meningococcal disease under non-patient specific standing orders. Template standing orders are available:

<https://www.immunize.org/catg.d/p3095.pdf>

Q8: Are booster doses of MenB vaccine recommended?

A8: Booster doses of MenB vaccine are not routinely recommended unless the person becomes at risk for meningococcal disease. Persons with persistent complement deficiencies, and anatomic or functional asplenia who remain at risk should receive a booster dose at 1 year after completion of the primary vaccination and every 2-3 years thereafter. For persons identified as being at increased risk during an

outbreak a single dose should be given if it has been 1 year or more after MenB primary series completion. Public health professional may consider a shorter interval during an outbreak.

Q9: Are travelers to the “meningitis belt” or to Mecca recommended to receive MenB vaccine?

A9: No, MenB vaccine is not recommended to travelers to the “meningitis belt” or to Mecca because meningococcal disease in these countries is predominantly caused by serogroup A.

Resources:

Advisory Committee on Immunization Practices (ACIP) for meningococcal vaccines is available on the MMWR website at www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6909a1-H.pdf. This document replaces all previously published reports and policy notes. CDC schedules can be found <https://www.immunize.org/cdc/schedules/>

IAC has prepared a document that provides a summary of the ACIP recommendations for use of MenACWY for people of all ages. The document is available at www.immunize.org/catg.d/p2018.pdf.

Ask the Experts: https://www.immunize.org/askexperts/experts_meningococcal_acwy.asp

Template Standing order for MenACWY: <https://www.immunize.org/catg.d/p3081.pdf>

Meningococcal CDC Educational documents: <https://www.cdc.gov/meningococcal/pubs-tools/multimedia.html>