Topple Meningococcal
TOOLKIT

TEXAS Health and Human Services
Texas Department of State Health Services

Let's protect our teenagers from Meningococcal Disease.

The Topple Meningococcal: A Vaccination Education Campaign focuses on increasing meningococcal vaccine rates among 16 to 18-year-olds in Texas through spreading awareness and education of meningococcal vaccines. Teenagers are at higher risk of contracting meningococcal disease, which can lead to lifelong disabilities and even death. Thankfully, there are several vaccines that can protect teenagers against meningococcal disease.

DSHS promotes outreach activities to increase awareness about vaccines and the diseases they prevent. DSHS community outreach empowers people with accurate health information and gives them resources to lead healthier lives. This toolkit is for high schools, colleges, health care providers, and public health professionals to provide support and education on stopping the spread of meningococcal disease and other vaccine-preventable diseases that can harm teenagers.

High school and college administrators are encouraged to review pages nine through 14. Health care providers are encouraged to incorporate the vaccine recommendation strategies outlined on pages 15–22 into their practice.

DSHS encourages you to share the educational materials in the appendix with your patients or students. Along with the materials in the appendix, DSHS has an online catalog with free DSHS immunization print materials that is recommended for schools and health care providers.

DSHS Immunization Section hopes you, your loved ones, and the community you serve benefit from the Topple Meningococcal Toolkit.

Every dose matters

Meningococcal disease prevention starts with you.

Contact Information
Immunization Program

Texas Department of State Health Services

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Austin, Texas 78756

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immunizetexas.com
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Meningococcal Disease Profile

An overview of meningococcal disease, vaccines, and personal testimonies.

Meningococcal Disease

According to the Centers for Disease Control and Prevention (CDC), meningococcal disease refers to any illness caused by bacteria called *Neisseria meningitidis*. The illness leads to an infection that can affect the lining of the brain and spinal cord (meningitis) and bloodstream.

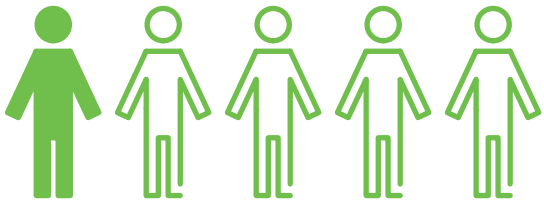
Common symptoms include:

- Fever
- Headache
- Stiff neck

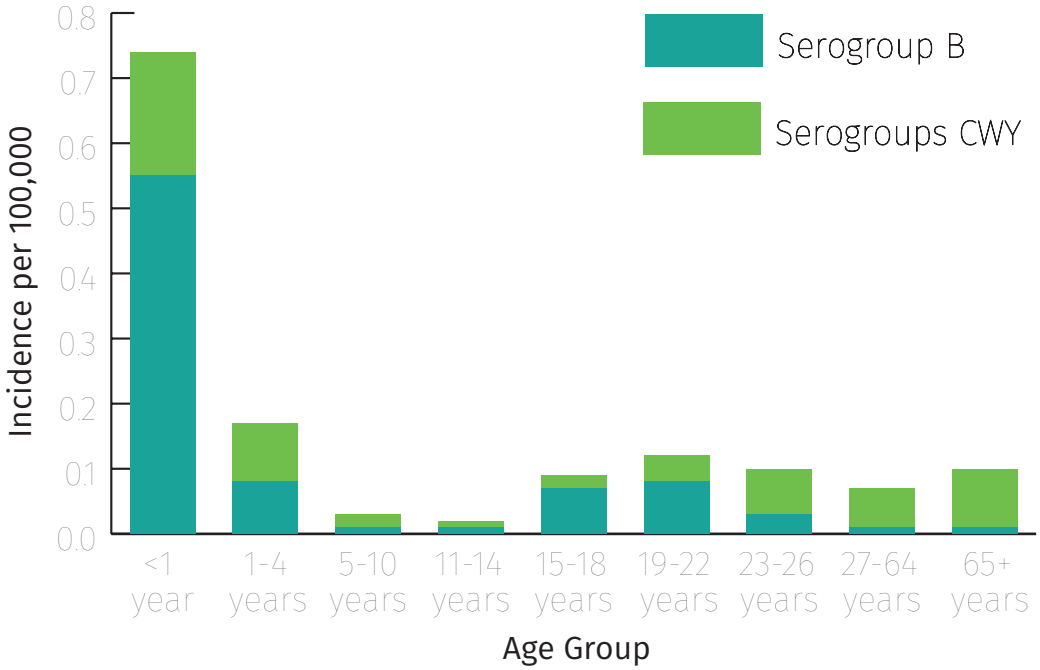
Additional symptoms include:

- Nausea
- Vomiting
- Sensitivity to light
- Confusion

One in five survivors will have long-term disabilities, such as loss of limb(s), deafness, nervous system issues, and brain damage.



Meningococcal Incidence By Serogroup* And Age-group, 2012-2021



*unknown serogroup (12%) and other serogroups (9%) excluded

Meningococcal disease impacts individuals of all ages regardless of demographics.

U.S. cases of meningococcal disease have increased sharply since 2021 and now exceed pre-pandemic levels. In 2023, 438 confirmed and probable cases were reported. This is the largest number of U.S. meningococcal disease cases reported since 2013.

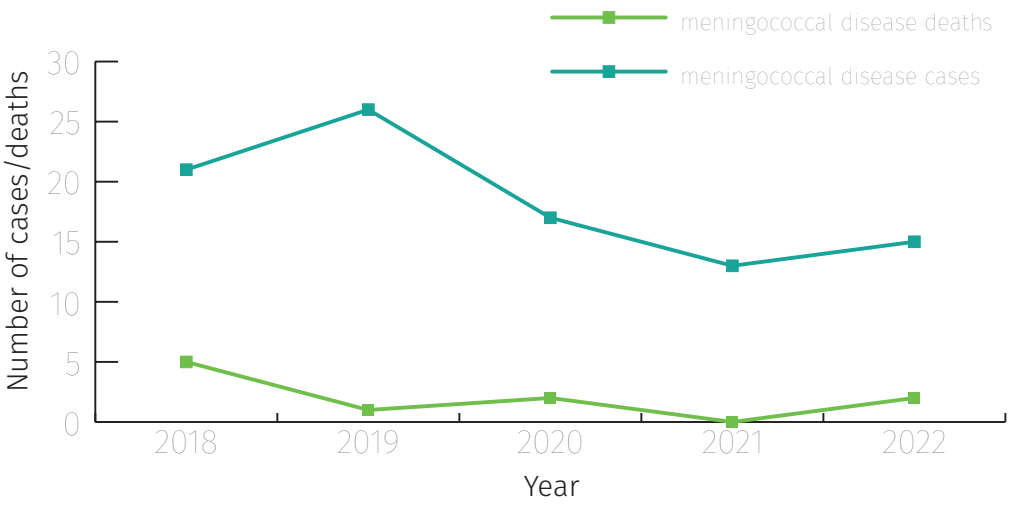
(CDC, 2024a) (National Center for Immunization and Respiratory Diseases, 2024).

Even with antibiotic treatment,

10–15%

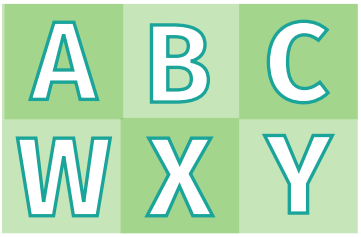
of people with meningococcal disease will die from the disease.

Meningococcal Cases And Deaths In Texas (All Ages)



Different subgroups (subtypes) of *Neisseria meningitidis* cause the same infection of the brain and spinal cord.

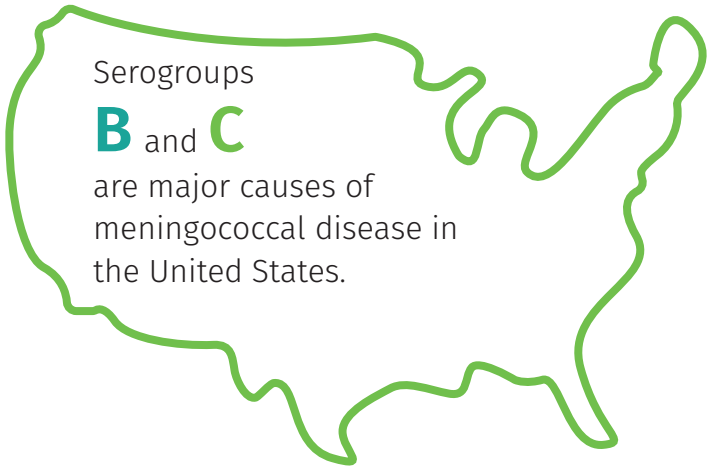
Six serogroups – A, B, C, W, X, and Y – cause most meningococcal disease worldwide.



Approximately

60%

of meningococcal disease cases among those under 24 years of age are caused by serogroup B.



There are three types of meningococcal vaccines.

Men B

Serogroup B Meningococcal vaccine**

MenACWY

Meningococcal conjugate vaccine*

MenABCWY

Pentavalent Meningococcal vaccine

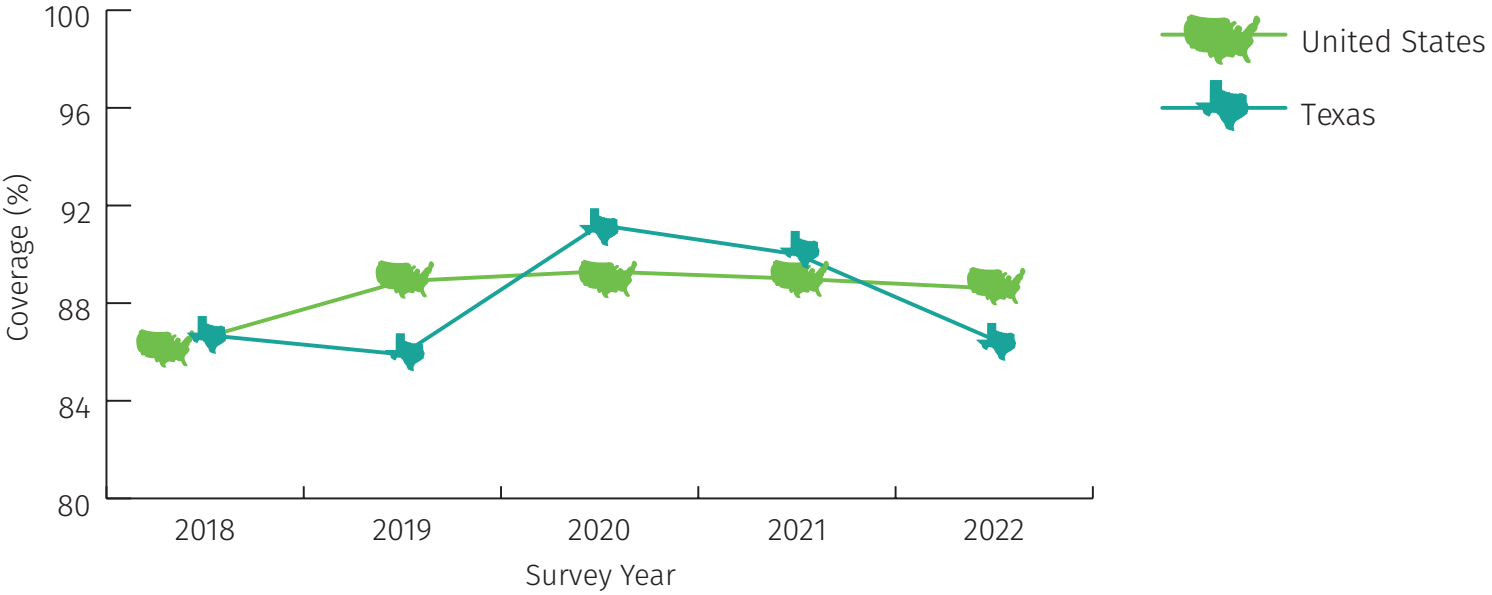
**Different brands of the MenB vaccine are not interchangeable.

* MenACWY brands are interchangeable, but the CDC recommends receiving the same brand for all doses.

(Mbaeyi et al., 2021). (Texas Immunization Registry, 2024) (CDC, 2023a)

Meningococcal Vaccine Rates (MenACWY) in Texas and the United States

One Or More Doses MenACWY Vaccination Coverage By Year Among Adolescents Age 13–17 Years, National Immunization Survey-Teen



The graph illustrates vaccine coverage estimates of 13 to 17-year-olds receiving the first dose of the MenACWY vaccine in the United States and Texas from 2018 to 2022.

2018
- United States had a MenACWY vaccine coverage rate of 86.6%
- Texas had a similar coverage of 86.7%

2019
- United States vaccine coverage increased to 88.9%
- Texas decreased to 85.9%

2020
- both the US and Texas had coverage rate increases, with the US reaching 89.3% and Texas reaching 91.2%

2021
- US had a coverage rate of 89%
- Texas had coverage decrease to 90%

2022
- The US had a coverage rate of 88.6%
- Texas had a coverage rate of 86.5%

According to this graph from the CDC, coverage for the first dose of the MenACWY vaccine for 13 to 17-year-olds declined after 2020 in both the United States and Texas.

Under-vaccinating adolescents for MenACWY leaves them at risk of contracting meningococcal disease, which can lead to life-altering disabilities and even death.

To guarantee the safety of adolescents and their communities, it is essential to reverse the current declining trend of MenACWY vaccine coverage.

(CDC, 2021d)

FAQ for the Three Types of Meningococcal Vaccines in the United States

Serogroup B Meningococcal (MenB)** vaccine

What serogroups does this protect against?

B

It helps protect against serogroup B bacteria.

What are the different brands of the MenB vaccine?

Bexsero® and Trumenba®.

**Different brands of the MenB vaccine are not interchangeable.

What is the recommended age and dosage for this vaccine?

The recommended age for MenB is 16 to 23 years old. However, the preferred age for the MenB vaccine is 16 to 18 years old. Vaccine providers can give a two-dose series of Bexsero® or Trumenba® to people 16 to 23 years old who are not at increased risk of meningococcal disease.

MenACWY Meningococcal conjugate vaccine*

What serogroups does this protect against?

A C W Y

MenACWY helps protect against four types of bacteria that cause meningococcal disease: serogroups A, C, W and Y.

What are/were the different brands of the MenACWY vaccine?

Menveo®, MenQuadfi®, and Menactra**†.

What is the recommended age and dosage for this vaccine?

First dose: 11 or 12 years of age.

Second (booster) dose: 16 years of age.

Doses may also be given to certain people at increased risk of meningococcal disease.

* MenACWY brands are interchangeable, but the CDC recommends receiving the same brand, but not required, for all doses.
** MenQuadfi replaced Menactra (August 2022) as the recommended vaccine from Sanofi.
† Previous doses of Menactra are effective.

MenABCWY Pentavalent Meningococcal vaccine

What serogroups does this protect against?

A B C W Y

The MenABCWY vaccine helps protect against five types of bacteria that cause meningococcal disease: serogroups A, B, C, W, and Y.

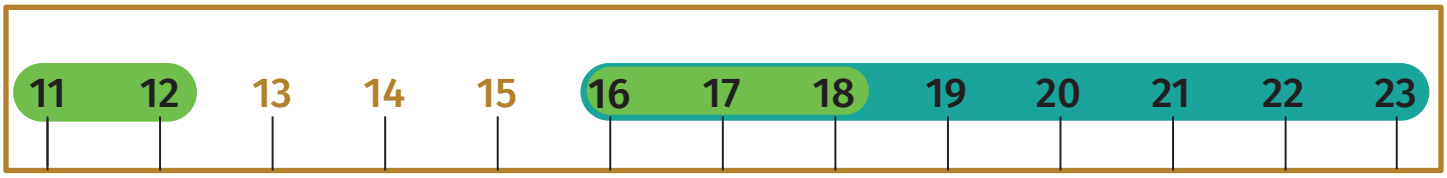
What are the brands of the MenABCWY vaccine?

Penbraya™ and Penmenvy™

What is the recommended age and dosage for this vaccine?

Vaccine providers may give one dose of Penbraya or Penmenvy to people 10 through 25 years of age instead of the separate MenACWY and MenB doses when both are indicated. Providers should still ensure that the MenACWY and MenB vaccine series are completed, and that the MenB series is completed with the same MenB vaccine they started with.

Key Takeaways:



MenACWY

11 to 12-year-olds should get a MenACWY vaccine, with a booster dose at 16 years old.

MenB

Teens and young adults (16 through 23 years old) may also get a MenB vaccine.

School Requirements

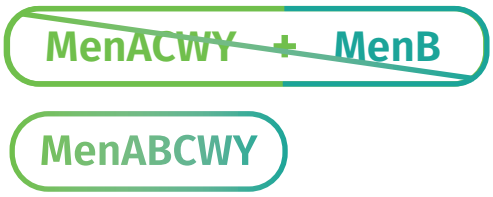
7th–12th grade

Texas requires all students attending grades seventh through twelfth have one dose of the quadrivalent meningococcal conjugate vaccine (MenACWY) on or after the student turns 11.

Colleges or universities

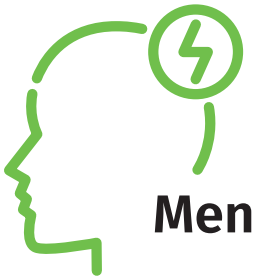
Texas requires students under the age of 22 years entering an institution of higher education to show proof of an initial meningococcal vaccine dose or a booster dose during the five years before enrollment.

(CDC, 2023c) (CDC, 2024e) (DSHS, n.d.)



Those who are getting MenACWY and MenB vaccines at the same visit may instead get a MenABCWY vaccine.

The CDC also recommends meningococcal vaccines for other children and adults who are at increased risk for meningococcal disease.



Meningococcal Vaccine Side Effects

Some vaccines may cause mild side effects, such as, pain, or redness at the site of the injection.

Most symptoms were mild to moderate and resolved within three to five days.

More serious or long-lasting side effects to vaccines are possible but rare. Vaccine side effects are monitored by authorities to detect any adverse events.

World Health Organization [WHO], 2021 (CDC, 2024c) (CDC, 2021)

Testimonies

"My biggest regret was not getting vaccinated against meningococcal disease."

– Gerald Pe

As a freshman in college, Gerald was enjoying a relaxing day at the beach with friends. He suddenly began to feel sore, exhausted, and experienced intense sensitivity to light. The next day, he was in the emergency room and given less than two hours to live.

He survived, but had both legs amputated as a result of the infection. Gerald knew about a vaccine, but didn't realize how serious meningococcal disease can be. If he had known, he would have gotten vaccinated.

"It could happen to anyone. Please make sure you are vaccinated. You won't regret it."

– Heather Tufano

Heather was a freshman in college when she suddenly developed a fever, chills, and pain in her joints so extreme that she could not walk. Then, a purplish rash spread quickly all over her legs. She was rushed to the hospital where she was given a five percent chance of survival. She was in the hospital for three months and underwent roughly eight surgeries, including the amputation of her right foot and two fingers. She hopes her story will encourage others to get vaccinated.

(National Foundation for Infectious Diseases, 2023)

Meningococcal Disease For High Schools and Colleges

This section prepares adolescents for higher education by outlining vaccine requirements for post-high school institutions and by providing information on low-cost vaccine programs. This section also contains information and educational resources on all vaccines that are recommended for adolescents by the Advisory Committee on Immunization Practices (ACIP). It is important that adolescents obtain all ACIP recommended vaccines prior to graduating high school and aging out of the Texas Vaccines for Children (TVFC) program, which provides affordable vaccines for eligible children until they reach their 19th birthday.

Why are vaccines important for adolescents?

Immunization is the best public health tool for preventing disease and death among fellow Texans. The rate of vaccinated adolescents in Texas is well below the national average in the United States. Health care providers in communities play an essential role in impacting behaviors and reinforcing trust in vaccines.

Even though adolescents may feel invincible, their immune systems are not yet ready for many challenges they will face. An adolescent's immune system has already been exposed to many viruses and bacteria, through illnesses and receiving vaccines, but it may not be prepared to fight off every infection.

Teens are particularly susceptible to certain vaccine preventable diseases, due to waning immunity, new exposures, evolving viruses and missed opportunities.

Waning Immunity – Vaccines for diseases, such as tetanus, diphtheria and pertussis that the adolescent may have been immunized for as a child do not offer lifelong protection. Teens become susceptible to these diseases again.

New Exposures – As teens go out into the world, they are going to be exposed to new viruses and bacteria. Ensuring teens are up-to-date on their vaccines can decrease their risk of infection from meningococcus bacteria and human papillomavirus.

Evolving Viruses – All children, six months and older, including adolescents, should get a yearly influenza vaccine. The influenza virus can change rapidly from year-to-year, making it essential to stay up-to-date.

Missed Opportunities – Adolescents who have not already received hepatitis B, measles-mumps-rubella, polio and hepatitis A should be caught up as soon as possible. Vaccines are just one way health care providers and parents can ensure teens are prepared to enter adulthood.

ACIP- Adolescent Recommended Vaccines

The CDC ACIP is a group of medical professionals who creates recommendations and guidelines for vaccines in the U.S., including the ages when these vaccines should be given, doses, and any precautions. The knowledge and expertise of not only the vaccine manufacturers but the ACIP guarantees the safety and effectiveness of vaccines.

Pertussis

Vaccines: Tdap

First dose of Tdap at ages 11-12, followed by a booster of Tdap every 10 years

Spread by: Air, direct contact

Symptoms: Severe cough, runny nose, apnea (a pause in breathing in infants)

Complications: Pneumonia (infection in the lungs), death

Tetanus

Vaccines: Tdap,Td

First dose of Tdap at ages 11-12, followed by a booster dose of Tdap every 10 years

Spread by: Exposure through cuts in skin

Symptoms: Stiffness in neck and abdominal muscles, difficulty swallowing, muscle spasms, fever

Complications: Broken bones, breathing difficulty, death

Diphtheria

Vaccines: Tdap, Td

First dose of Tdap at 11-12, after a DTaP series, followed by a booster dose of Tdap every 10 years.

Spread by: Air, droplet, direct contact with lesions

Symptoms: Sore throat, mild fever, weakness, swollen glands in neck

Complications: Airway obstruction, swelling of the heart muscle, heart failure, coma, paralysis, death

Influenza

Vaccines: ccIIV3, IIV3, LAIV3 Given yearly

Spread by: Air, droplet, direct contact

Symptoms: Fever, muscle pain, sore throat, cough, extreme fatigue

Complications: Pneumonia, bronchitis, sinus infections, ear infections, death

Human Papillomavirus

Vaccines: Human Paillomavirus (HPV) Vaccine

First dose at ages 9-14 as a two-dose series; first dose at ages 15-26 as a three-dose series

Spread by: Direct skin contact

Symptoms: May be no symptoms, genital warts

Complications: Cervical, vaginal, vulvar, penile, anal, oropharyngeal cancers

Meningococcal Disease

Vaccines: MenACWY, MenABCWY, and MenB

MenACWY – first dose at ages 11-12, second dose at age 16

MenABCWY – one dose to people 10 to 25 years old when both MenACWY and MenB are indicated.

MenB – With shared clinical decision-making, first dose at ages 16-23, second dose at least six months after.

Spread by: Respiratory droplets and throat secretions

Symptoms: Sudden onset fever, headache, stiff neck, dark purple rash

Complications: Loss of limb(s), deafness, nervous system disorder, stroke, death

Covid-19

Vaccines: COVID-19 vaccine protects against severe complications from coronavirus 2019

Spread by: Air, direct contact

Symptoms: May be no symptoms, fever, muscle aches, sore throat, cough, runny nose, diarrhea, vomiting, new loss of taste or smell.

Complications: Pneumonia (infection in the lungs), respiratory failure, blood clots, bleeding disorder, injury to liver, heart or kidney, multi-system inflammatory syndrome, post-COVID syndrome, death

(CDC, 2024b) (CDC, 2024d) (DSHS, 2024c) (DSHS, 2024d)

How to pay for ACIP-recommended vaccines

The Texas Department of State Health Services (DSHS) Immunization Section works daily to make vaccines more accessible through programs such as Texas Vaccines for Children (TVFC) and Adult Safety Network (ASN), which provide free vaccines to eligible children and low to no-cost vaccines to eligible adults. TVFC and ASN give vaccines to communities who would otherwise be without protection from vaccine-preventable diseases.

TVFC program

The TVFC Program provides vaccines at no cost to uninsured, underinsured, Children's Health Insurance Program (CHIP)-eligible, American Indian or Alaskan Native, or Medicaid-eligible children through 18 years of age. To look up TVFC providers near you, scan the QR code below:

ASN program

The ASN Program provides low to no-cost vaccines to adults 19 years of age and older who do not have health insurance. To look up ASN providers near you, scan the QR code below:

Overall, there are a few options to access ACIP-recommended vaccines. Options include the following:

- Private health insurance
- Most insurance plans cover the cost of vaccines. However, it is important to check with insurance providers to see if all ACIP-recommended vaccines are covered
- Military insurance
- Medicare
- Medicaid
- Children's Health Insurance Program (CHIP)
- TVFC Program
- ASN Program
- Indian Health Service (IHS)
- GoodRx

Higher Education Readiness – Texas

Immunization requirements college

- All students entering an institution of higher education are required to show proof of an initial meningococcal vaccine or a booster dose within five years before enrolling.
- They must receive the vaccine at least 10 days before the semester begins.

Health care and veterinary students

- There are additional requirements for students enrolled in healthcare or veterinary course work

Student Categories

Health Care (non-veterinarian)

Required vaccines

- Tetanus-diptheria
- Measles
- Mumps
- Rubella
- Hepatitis B
- Varicella

Veterinary Medicine

Required vaccines

- Tetanus-diptheria
- Rabies
- Hepatitis B

For more information visit:
dshs.texas.gov/immunize/school/healthcare-veterinary.aspx

Students, who claim to have had the complete series of a required vaccination, but do not have proper documentation, cannot participate in coursework activities involving direct patient contact with potential exposure to blood or bodily fluids in educational, medical, or dental care facilities, or direct contact with animals or animal remains, until such time as proper documentation has been submitted and accepted.

Three ways to show proof of vaccination

1. Form with signature of physician with date of vaccination
2. Immunization record from state or local health autority with date of vaccination
3. An official record received from school officials

The Texas Immunization Registry

The Texas Immunization Registry (ImmTrac2) is an opt-in immunization records system created and managed by DSHS.

ImmTrac2 stores vaccine records conveniently and securely for millions of people. Clients opting into ImmTrac2 may also request a copy of their immunization records.

To ensure no issues with college enrollment, all students should check their vaccine records to determine if they meet the minimum state vaccine requirements for college entry.

If a student's vaccine records are not stored in ImmTrac2, they should contact their family doctor or pediatrician to request their childhood vaccine records. To store future vaccines in ImmTrac2, a student will need to sign the ImmTrac2 consent forms found in the appendix.

To access vaccine records stored in ImmTrac2, students should:

1. Fill out the "Authorization to Release Official Immunization History Form"
2. Email it to ImmTrac2@dshs.texas.gov.

Scan the QR code to access the form.

Authorization to Release Form

Remember, if adolescents are not up-to-date on their childhood vaccine schedule, they may be at risk for additional vaccine preventable diseases.

Meningococcal Disease

For Health Care Providers and Public Health Professionals

Vaccine Recommendation Strategies

Increasing vaccine coverage starts at the individual level with patients making informed choices. As a health care provider or public health professional, refer to this section to instill vaccine confidence in your patients.

To improve meningococcal and other vaccine rates, the DSHS Immunization Section recommends providers implement the three strategies below:

- Tailor vaccine messages
- Initiate the conversation around vaccines
- Engage using motivational interviewing

Provider Recommendation Strategy: Tailor Vaccine Messages

The Centers for Disease Control and Prevention (CDC, 2021a) suggests three steps to create effective vaccine messages and educational materials.

1

Understand the community

- Consider knowledge, beliefs, motivations, and barriers related to vaccines
- Think about communication preferences
- Examine social and cultural factors like values, customs, and social class

2

Create tailored messages and materials

- Focus on your patients' motivations for getting vaccinated
- Use values that resonate with your patients
- Invite your patients to have conversations with you and other health care professionals
- Provide details on how to get vaccinated

3

Get input and feedback

- Include patients and community members in the design process
- Seek feedback on materials with your patients

Provider Recommendation Strategy: Initiate the Conversation Around Vaccinations

Initiating the conversation, otherwise known as presumptive style of communication, is associated with higher levels of meningococcal vaccination compared to other styles of communication.

Presumptive communication also addresses parental vaccine hesitancy.

Addressing parental hesitancy with persistence and continued use of presumptive communication tends to lead to same day vaccination. If parents express concerns, share your strong vaccine recommendation.

Examples of presumptive communication:

"I strongly recommend your children get these vaccines today...I believe in vaccines so strongly that I vaccinated my own children on schedule."

"I strongly recommend your child get these vaccines today ... this office distributed thousands of vaccines, and we have rarely seen a serious reaction."

"I strongly recommend your children get these vaccines today...these shots are very important to protect them from serious illness."

(Miller & Rollinick, 2002)

Provider Recommendation Strategy: Engage Using Motivational Interviewing

Motivational interviewing is an evidence-based approach to address behaviors that prevent individuals from making necessary changes in their lives. Providers can apply motivational interviewing to enact change for several health-related topics, including meningococcal vaccination.

Remember "OARS" to strategize motivational interviewing.

O	Open-ended questions
A	Affirmation
R	Reflective listening
S	Summarization

Open-ended questions

Invite the patient to have an active role in the conversation because these questions cannot be answered by a simple "yes" or "no."

"What are your concerns about the meningococcal vaccine?"

"Tell me about your last experience receiving a vaccine."

"What are some of the things you've heard about this vaccine?"

Affirmations

Give genuine comments and actions recognizing the strengths and accomplishments of the patient. Affirmations give the patient the confidence to make decisions and achieve a desired outcome.

"I appreciate your willingness to speak with me today about your concerns."

"I'm glad we're having this conversation. We need more people like you."

"There's a lot of discussion about vaccines, so I think it's great that we're talking and you're wanting to make an informed choice."

Reflective listening

Reflect the patient's message back using repetition and paraphrasing. It's important to also reflect the patient's feelings using summarizing and paraphrasing to build a true connection based on empathy and understanding.

"It sounds like you..."

"You are wondering if..."

"Please say more about..."

Summarize

Use summarizing as a tool throughout the conversation or between topics.
Begin by showing you are summarizing and point out the patient's statements that showed an openness to change.

"So, let me see if I got this right..."

"So, you have been saying... is that correct?"

"Here is what I heard. Please tell me if I missed anything."

(Miller & Rollinick, 2002)

Introduction to At Risk Populations

Increasing access to vaccines helps protect communities against vaccine-preventable diseases, but efforts that may work for most of the population may not address unique circumstances at the community level. At risk populations with factors such as a low income or a rural environment require unique solutions for promoting vaccines and providing health care in these populations. Other factors including geographic location, sex, race, ethnic group, religious belief, mother's country of origin, education, employment, and family income may also impact populations.

General Solutions

While the at risk populations listed in this section require unique immunization solutions, some areas of overlap include:

- Reminder-recall systems
- Community outreach activities
- Increased clinic hours
- Vaccine-only clinic visits
- Education for parents
- Low cost or subsidized vaccines

Implementing multiple immunization solutions at one time is generally shown to be more effective than implementing only one solution at a time.

Rural Communities

Vaccination Barriers

- Parental concerns and misunderstandings about vaccines
- Negative clinic experiences because of factors like limited appointment availability
- Lack of a medical home
- Low reimbursement rates lead private rural providers to refer patients elsewhere for affordable vaccines
- Structural barriers like transportation and primary care provider shortages
- Lack of automated prompts in Electronic Health Record (EHR) systems notifying providers of due or overdue vaccines

Solutions to Vaccination Barriers

- Positive family-provider relationships using tools such as OARS
- Vaccine-only clinic visits
- Referrals and incentives
- School-based promotion activities and mobile vaccine clinics
- Use of reminder-recall systems, including ImmTrac2

Non-Native English Speakers

Vaccination Barriers

- Computer literacy (online appointment registrations)
- English language literacy
- Limited access to health insurance
- Lack of trust in the health care system
- Low access to health care due to limited transportation and clinic hours of operation
- Poor access to vaccine and health education
- Health lines with language interpreters

Solutions to Vaccination Barriers

- Multilingual vaccine resources
- Third party immunization programs to expand coverage to bypass high cost
- Collaboration with cultural and religious organizations
- Mobile vaccine clinics
- Strong health care provider recommendations

Low-Income Populations

Vaccination Barriers

- Limited access to immunization services due to cost
- Busy schedules (unable to take time off work or school, family obligations, etc.)
- Outdated contact information due to moving frequently

Solutions to Vaccination Barriers

- Programs like TVFC and ASN that offer free or low-cost vaccines
- School-based promotion activities including enrollment requirements and vaccine clinics offered at schools
- Routine updates of contact information

(Hofstetter et al., 2017) (Herrera-Restrepo et al., 2024) (Harris et al., 2009)

Adolescents with Chronic Medical Conditions

Vaccination Barriers

- Miscommunication between primary and specialty care providers
- Parental concern due to the complexity of their child's condition
- Parents' limited understanding of adolescent health issues

Solutions to Vaccination Barriers

- Participation in ImmTrac2 to keep track of vaccines
- Education for parents on the benefits and safety of vaccines and strong recommendations when appropriate
- Adolescent-specific immunization toolkits

Unhoused People

Vaccination Barriers

- Lack of information on vaccines
- Vaccines possibly low priority
- Inability to travel to or locate a vaccine clinic
- Reluctance to trust health care providers
- Inability to pay for vaccines

Solutions to Vaccination Barriers

- Educational outreach activities
- Vaccines as part of routine health and social care
- Mobile vaccine clinics and non-traditional settings for vaccines such as shelters and community centers
- Strong partnership through stakeholder collaboration with health and social care staff who work with unhoused people
- Programs like TVFC or ASN that offer free or low-cost vaccines

(Community Preventative Services Task Force, 2009) (Albers et al., 2022).(Machado et al., 2021) (Das et al., 2016) (March et al., 2022) (Choi et al., 2018) (The Community Guide, 2023) (Bach et al., 2019) (Frew & Lutz, 2017) (Lehmann et al., 2016) (Stokley et al., 2011).(McCosker et al., 2022).

Vaccine Reminder Template

If you are a provider, use this template for a meningococcal vaccine reminder letter for patients and families.

[INSERT NAME], [INSERT TITLE]

[INSERT OFFICE ADDRESS]

[INSERT CURRENT DATE]

Dear Parent or Guardian:

We hope this letter finds you and your family well. Our records indicate that [INSERT NAME OF PATIENT] has not yet [initiated; completed] the [type of meningococcal vaccine] series. We encourage you to schedule an appointment for your children to receive the meningococcal vaccine. Vaccinating your children as soon as possible will provide the greatest amount of protection from meningococcal disease.

Meningococcal disease is an illness caused by bacteria called Neisseria meningitidis. The illness leads to an infection of the lining of the brain and spinal cord (meningitis) and bloodstream. Meningococcal disease is extremely deadly. Even after receiving antibiotic treatment, 10 percent to 15 percent of those infected with meningococcal disease will still die. Immunization is the best preventative measure to make sure your loved ones are protected.

You may contact our office at [PHONE NUMBER] to make an appointment or ask any questions about vaccines for your children. To learn more about the meningococcal vaccine, please visit cdc.gov/vaccines/vpd/mening/public/index.html and dshs.texas.gov/meningococcal-invasive-disease.

Meningococcal Disease

Appendix

High school and college resources for meningococcal vaccines

Meningitis B in 90 seconds

Scan the QR code to access a video detailing the importance of MenB vaccination. This video can be shared with your students, patients, and the community.

QR code from American Society for Meningitis Prevention.
Link: youtube.com/watch?v=1CHVDso42a8

WHAT IS MENINGOCOCCAL MENINGITIS?

The most common form of bacterial meningitis in adolescents and young adults.

MENINGOCOCCAL BACTERIA can cause a life-threatening bloodstream infection (that may lead to sepsis) or meningitis (infection of the membranes that surround the brain and spinal cord) - or both.

MAINLY CAUSED BY

5 types of meningococcal bacteria:

A **B** **C** **W** **Y**

IT IS EASY TO SPREAD

from person-to-person.

sharing anything that comes in contact with **SALIVA**

being in **CLOSE** quarters

being **SNEEZED** or coughed upon

KISSING

E-CIGS and **VAPES**

It can attack without warning and

SYMPTOMS INCLUDE:

MENINGOCOCCAL MENINGITIS CAN AFFECT ALL AGES, but adolescents and young adults are among the high-risk groups.

IT CAN BE DEADLY. It can kill in as little as 24 hours or cause permanent complications: brain damage, hearing loss, learning disabilities or limb amputations.

IT'S PREVENTABLE!

Get vaccinated against ALL 5 types of meningococcal bacteria most likely to cause meningococcal meningitis – ABCWY.

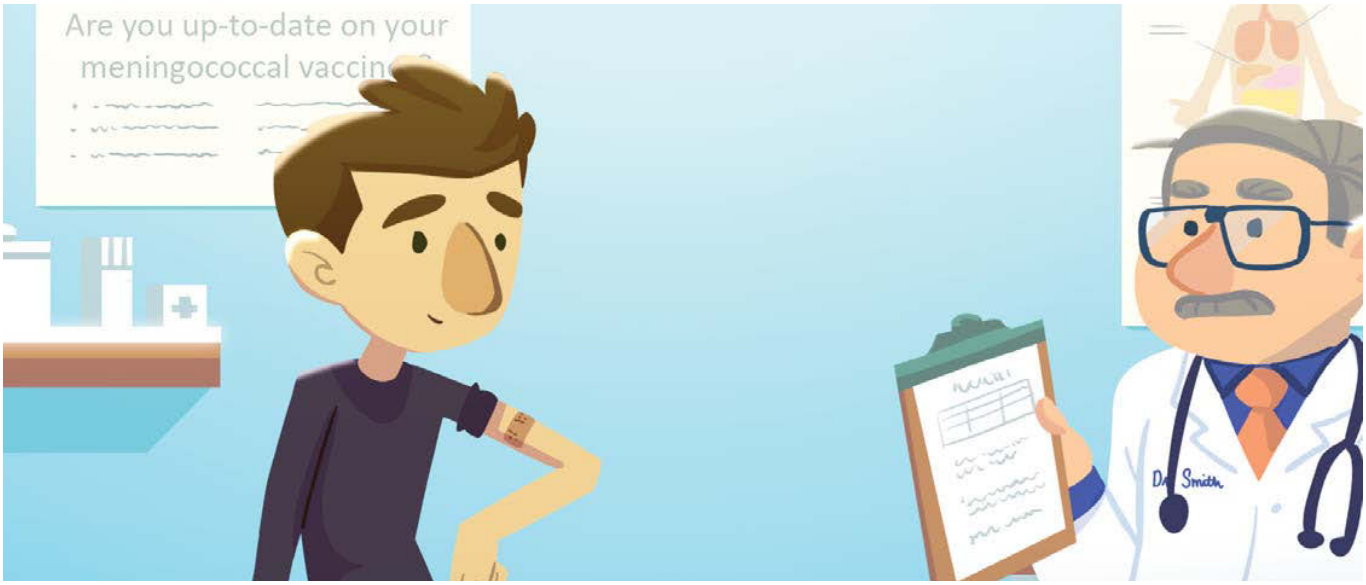
Start the conversation with your healthcare provider now.

AMERICAN SOCIETY FOR MENINGITIS PREVENTION

MENINGITISPREVENTION.ORG

YOU MAY REGRET SOME THINGS IN LIFE...

But you won't regret getting vaccinated against meningococcal disease.



FIVE FACTS ABOUT SEROGROUP B MENINGOCOCCAL DISEASE:

1. Adolescents and young adults are at increased risk of meningococcal disease, often referred to as meningitis, a serious disease that can lead to lifelong complications and even death.

2. Meningococcal disease is a bacterial infection caused by *Neisseria meningitidis*. The bacteria can invade the body, leading to severe swelling of the tissue surrounding the brain and spinal cord (meningitis) or bloodstream infection.

3. Vaccination is the best protection against meningococcal disease. There are two types of vaccines available to help prevent it:
   - Routine vaccination is recommended for all adolescents at age 11-12 years, with a booster dose at age 16 years to protect against four major meningococcal serogroups (A, C, W, and Y)
   - Meningococcal serogroup B vaccination may be administered to adolescents and young adults age 16-23 years, with a preferred age of 16-18 years.

4. Serogroup B is the most common cause of meningococcal disease in US adolescents and young adults. It is also the cause of recent outbreaks of the disease on US college campuses.

5. Early symptoms are often mistaken for flu or other less serious illnesses. Symptoms can progress quickly and may include high fever, headache, stiff neck, confusion, nausea, vomiting, exhaustion, and a purplish rash.

ASK ABOUT VACCINES TO PREVENT MENINGOCOCCAL DISEASE

National Foundation for Infectious Diseases®

Planning for Prevention: Tips to Manage Meningococcal Disease Outbreaks on Campus

Meningococcal disease (meningitis) is a rare but deadly bacterial infection. In addition to the serious medical impact, even one case on a college campus can cause social anxiety and fear among students and parents, often taking up a great deal of campus resources. Serogroup B is the most common cause of meningococcal disease in US adolescents and young adults. It is also the cause of recent college outbreaks of the disease. Parents may think their college-age children are protected against meningococcal disease because they received the routinely recommended quadrivalent vaccine (ACWY) – but, that vaccine does not protect against serogroup B disease. Students may request the serogroup B vaccine from their healthcare professional. Vaccines to protect against serogroup B became available in the US in 2014. Yet, very few adolescents and young adults have received it. The National Foundation for Infectious Diseases (NFID), a nonprofit organization dedicated to educating the public and healthcare professionals about the causes, prevention, and treatment of infectious diseases, offers the following tips to help increase and maintain a high level of awareness about meningococcal disease and prevention through vaccination:

- Encourage all incoming and returning students to get vaccinated according to CDC and state recommendations. Take every opportunity to inform students and their parents, including welcome packets, orientation, health center visits, website updates, and social media, about vaccines available to help protect against the disease.
- Educate students, prospective students, and parents with credible information. Use resources from reliable sources, such as NFID and CDC, for access to the latest information. Links to valuable resources are available at: www.nfid.org/meningitis-toolkit.
- Evaluate resources and discuss how you would respond to a meningococcal disease case on campus.
    - Meet with relevant department heads/administrators, student and community leaders, and healthcare and local public health professionals to discuss the level of knowledge about the disease, symptoms, potential impacts on campus, and college vaccine requirements/recommendations.
    - Establish relationships with local news media so that they understand the issue, can help promote information about the disease, and can help during a crisis. Provide easy access to information on all aspects of meningococcal disease, including diagnosis, treatment, transmission, and prevention to inform current and future media coverage.
- Establish a meningococcal disease response team, including representatives from health services, communications, administration, local public health, and the local community. Encourage team members to review the recommendations in the NFID report (http://www.nfid.org/meningococcal-b), based on real experiences with meningococcal disease serogroup B cases/outbreaks. Meet on a regular basis to discuss how your students can best be protected.

7201 WISCONSIN AVENUE • SUITE 750 • BETHESDA, MD 20814
T: 301.656.0003 • F: 301.907.0878 • www.nfid.org

Meningococcal Meningitis Vaccination Algorithm (MenACWY and MenB)

This algorithm for MenACWY and MenB vaccination has been designed to facilitate meningococcal vaccination in clinical practice.

The Centers for Disease Control and Prevention (CDC) recommendations for meningococcal vaccination are:

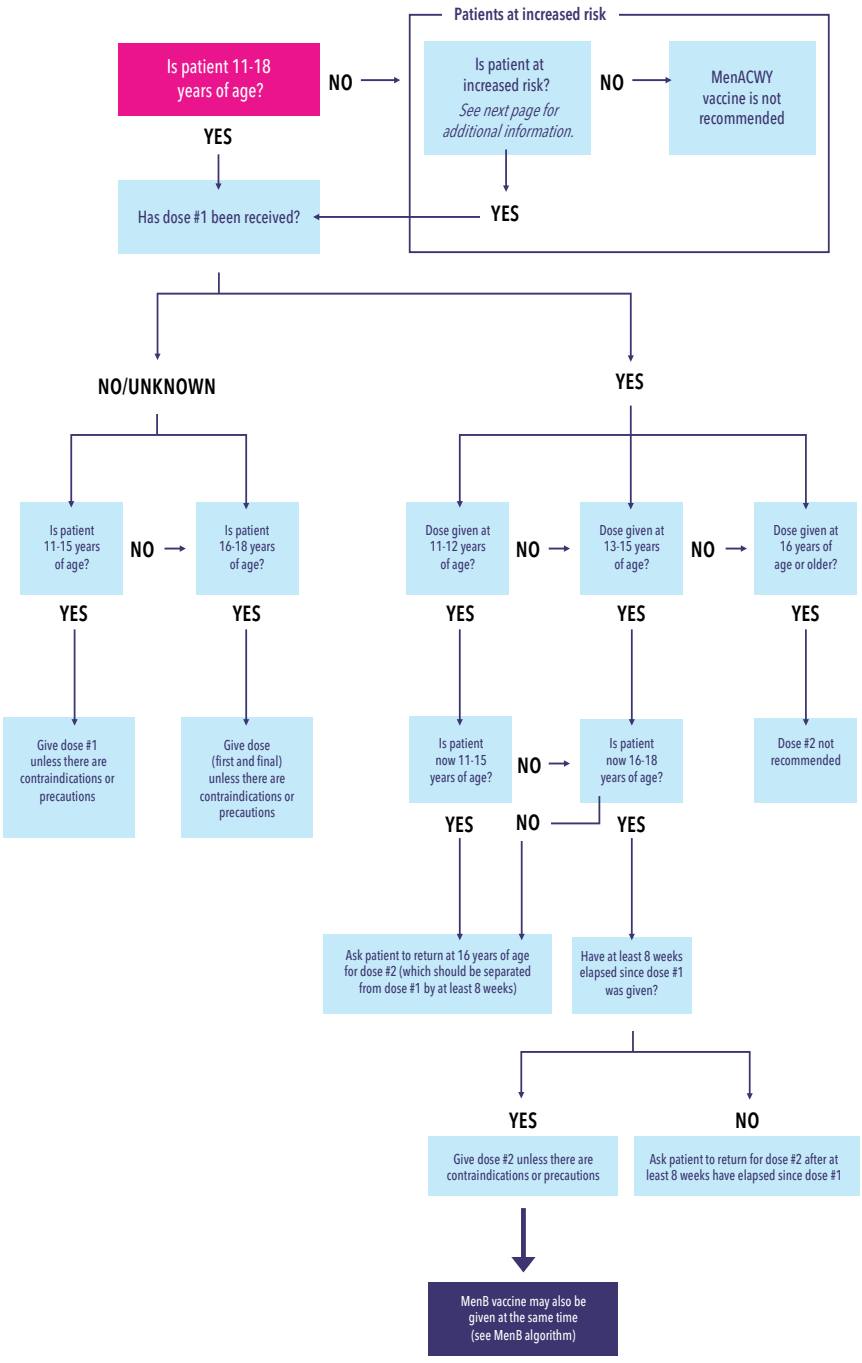
- **MenACWY:** All 11-12-year-olds should receive a meningococcal conjugate vaccine, followed by a booster dose at 16.[1]
- **MenB:** Healthy adolescents and young adults 16 through 23 years of age may also receive a serogroup B meningococcal vaccine. If given, the preferred age is 16 through 18 years.[1] For these individuals, MenB vaccination decisions should be made through shared clinical decision-making (SCDM) informed by discussions among the healthcare provider, patient, and/or parent or guardian. [1-2]

CDC also recommends meningococcal vaccination for other children and adults who are at increased risk for meningococcal meningitis.

This resource was developed by the American Society for Meningitis Prevention.
All information included has been reviewed by the ASMP medical council.

Algorithm for MenACWY Vaccination in Healthy Adolescents

11-18 Years of Age*



* Developed with reference to IAC MenACWY vaccine algorithm:
https://www.give2menacwy.org/pdfs/adolescent-algorithm.pdf

ADDITIONAL INFORMATION[3]

Menveo® is approved for 2 months to 55 years and MenQuadfi® is approved for ≥2 years. Some recommendations included herein are off-label.

Persons at Increased Risk for Whom MenACWY Immunization is Recommended

- First year college students living in a residential hall who have not had a dose of MenACWY since turning 16 or who received a dose after turning 16 but the dose was given 5 years or more before enrollment
- People living with a persistent complement component deficiency caused by an immune system disorder or by taking a complement inhibitor (eculizumab [Soliris®] or ravulizumab [Ultomiris®])
- People living with HIV
- People living with anatomic or functional asplenia
- Microbiologists routinely exposed to *Neisseria meningitidis* isolates
- Travelers to or residents of countries where meningococcal meningitis is hyperendemic or epidemic
- United States military recruits

Dosing

MenACWY vaccines are interchangeable; the same vaccine product is recommended, but not required for all doses.

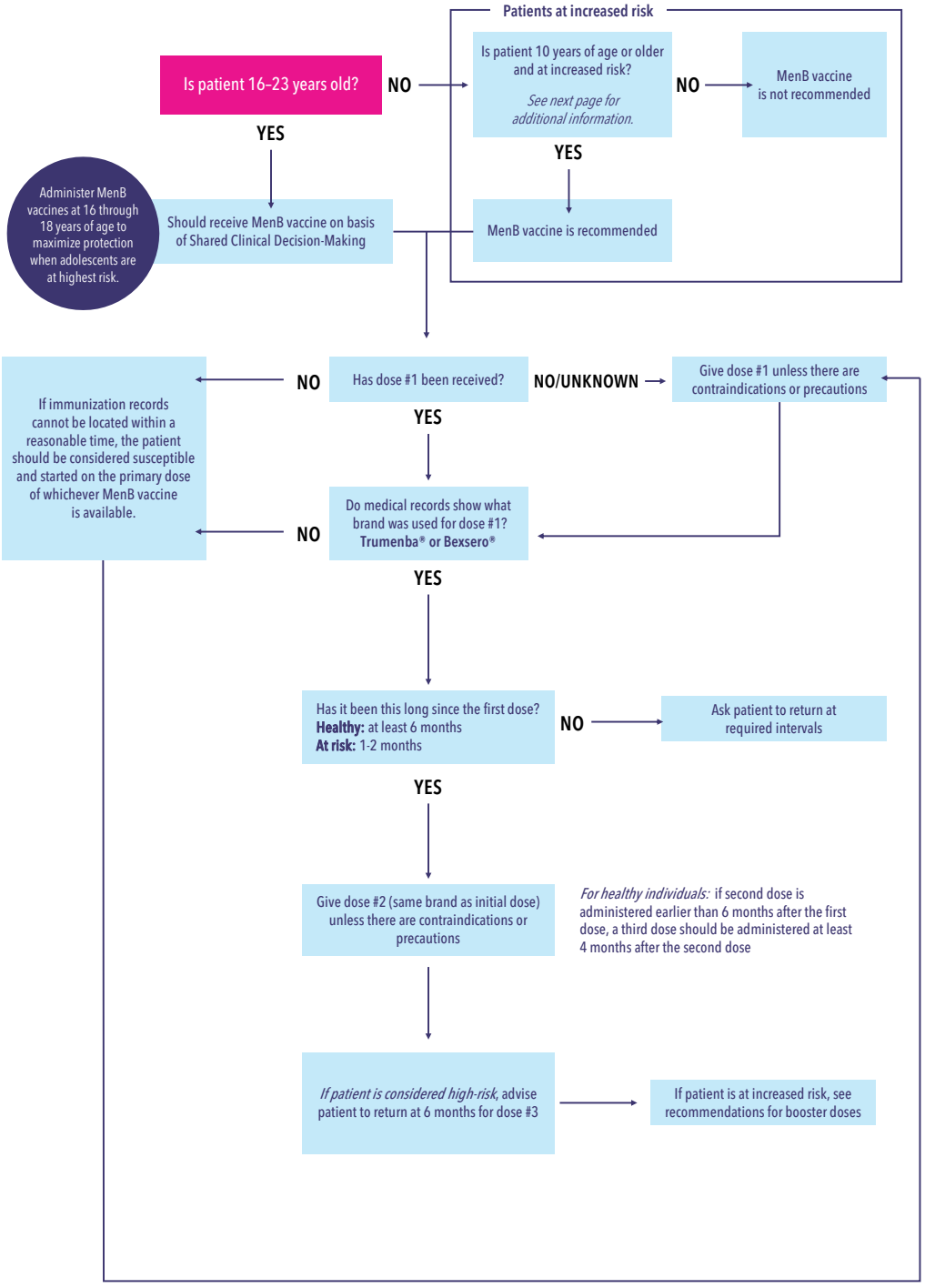
- Administer MenACWY vaccines to adolescents as 1 primary dose at 11 to 12 years of age
- Administer 1 booster dose at 16 years of age. The minimum interval between doses is at least 8 weeks
- MenACWY may be given through 21 years of age as a catch-up vaccination for those who have not received a dose after their 16th birthday
- Adolescents who receive their first dose of MenACWY vaccine at or after age 16 years do not need a booster dose
- For patients at prolonged increased risk for meningococcal meningitis, CDC recommends MenACWY booster doses after completion of the primary series. Vaccine product, number of doses, and booster dose recommendations are based on age and risk factors. *See reference 3 for additional information*
  - For patients who received their most recent dose before age 7, administer the booster dose 3 years later
  - For patients who received their most recent dose at age 7 or older, administer the booster dose 5 years later
  - Administer boosters every 5 years thereafter throughout life as long as the person remains at increased risk for meningococcal meningitis

Contraindications and Precautions

- Do not administer meningococcal vaccines to a person who has ever had a severe allergic reaction (e.g., anaphylaxis) after a previous dose or who has a severe allergy to any vaccine component
- Vaccine providers may administer meningococcal vaccines to pregnant or breastfeeding women
- Vaccine providers may administer meningococcal vaccines to a person who has a moderate or severe acute illness with or without fever

Algorithm for MenB Vaccination in Healthy Adolescents and Young Adults

10-25 Years of Age



ADDITIONAL INFORMATION[3]

Bexsero® and Trumenba® are FDA-approved for ages 10-25. Some recommendations included herein are off-label.

Persons at Increased Risk for Whom MenB Immunization is Recommended

Groups at increased risk include:

- Those having certain medical conditions: Complement component deficiency (e.g., C5- C9, properdin, factor H, factor D); Functional or anatomic asplenia (including sickle cell disease)
- People taking a complement inhibitor (eculizumab [Soliris®] or ravulizumab [Ultomiris®])
- Microbiologists routinely exposed to *Neisseria meningitidis* isolates
- Being a part of a community experiencing a serogroup B meningococcal meningitis outbreak

Dosing

The CDC has no preference as to which MenB vaccine is used, but the same vaccine product must be used for all doses.

- Healthy adolescents (2 doses): One dose at 0 and one dose at 6 months. If the second dose is administered earlier than 6 months after the first dose, a third dose should be administered at least 4 months after the second dose
- For persons aged ≥10 years who are in a MenB outbreak situation or at increased risk for meningococcal meningitis (3 doses): one dose at 0, one dose at 1-2 and one dose at 6 months

People desiring more rapid protection against serogroup B (e.g., students with less than 6 months before college entry) may receive a 3-dose series (0, 1–2, 6 months).

Those at increased risk need regular booster doses:

- Administer a booster dose of MenB vaccine 1 year after series completion and then every 2-3 years thereafter
- For those at increased risk due to an outbreak who previously received the MenB series, CDC recommends a booster dose if a year or more has passed since primary series completion

Contraindications and Precautions

- Do not administer meningococcal vaccines to a person who has ever had a severe allergic reaction (e.g., anaphylaxis) after a previous dose or who has a severe allergy to any vaccine component
- Vaccine providers may administer meningococcal vaccines to pregnant or breastfeeding women
- Vaccine providers may administer meningococcal vaccines to a person who has a moderate or severe acute illness with or without fever

Meningitis B Vaccination and Shared Clinical Decision-Making

According to the CDC, MenB vaccination should be based on shared clinical decision-making (SCDM) for healthy teenagers and young adults. SCDM allows the clinician and patient to decide together if MenB vaccination is appropriate based upon the risks and benefits of vaccination for the individual patient.

To enhance SCDM for MenB vaccination, the Advisory Committee on Immunization Practices (ACIP) has recently highlighted several considerations:[2]

- Seriousness of invasive meningococcal meningitis, including the risk for death or permanent complications
- Low incidence of serogroup B meningococcal meningitis (approximately 34 cases annually in the US among adolescents and young adults)
- Elevated risk in college students, especially freshman, people living on campus housing, those attending a 4-year school, or those in sororities or fraternities
- Protection provided by vaccination against most strains of disease-causing serogroup B
- Duration of MenB protection (antibodies wane 4 to 7.5 years after completion of vaccine series)[4]
- Evidence suggesting limited effects of MenB vaccination on meningococcal carriage (i.e., individual protection occurs, but herd immunity is unlikely)

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Learn more about the Meningitis B Action Project and meningococcal vaccination at MENINGITISBACTIONPROJECT.ORG.

MeningitisBActionProject.org

info@meningitisbactionproject.org

/MeningitisBActionProject

@MeningitisBActionProject

@MenBAction

Meningitis B Action Project

a joint initiative by The Kimberly Coffey Foundation and The Emily Stillman Foundation

Texas Immunization Registry (ImmTrac2) resources

What is the Texas Immunization Registry?

The Texas Immunization registry is a free service for Texans which stores immunization records in a secure and confidential centralized system (ImmTrac2).

Why should I enroll in the Registry?

Having accessible immunization records assists you in every stage of your life.
You may need your immunization records for:

- Travel
- College entrance requirements
- Living abroad
- Military enlistment
- Employment, mainly health and safety fields
- When changing doctors
- Verifying which vaccines you have received and what vaccines are due

Texas Immunization Registry (ImmTrac2)

Contact Us:

800-252-9152

immtrac.com

ImmTrac2@dshs.texas.gov

Texas Department of
State Health Services
Immunizations Section
MC-1946, P.O. Box 149347
Austin, TX 78714

TEXAS Health and Human Services | Texas Department of State Health Services

Texas Department of State Health Services
Immunizations Section

Stock No 11-13708
Rev. 11/2024

A Lifetime Registry

TAKE CHARGE OF YOUR RECORDS

What are benefits of the Registry?

- Vaccine records are stored in one place
- Records are only accessible by authorized health care providers and yourself
- Schools and universities can verify your vaccine records
- It is a free, secure and confidential service

How do I sign up for the Registry?

Scan the QR code or visit dshs.texas.gov/public/forms. Send the completed and signed form to your authorized Public Health Region, Local Health Department, or the Texas Immunization Registry.

Scan me

If your records were stored in the registry as a child you must complete the ImmTrac2 Adult Consent form (F11-13366) between 18 and 26 years of age to keep childhood vaccinations in the registry. If this form is not completed before you turn 26, your childhood records will be deleted.

How do I request a copy of my official immunization history?

To request a copy of your official immunization record:

- Scan the QR code, complete the ImmTrac2 Authorization to Release Official Immunization History form (F11-11406).

Scan me

- Send your completed and signed authorization to your local Public Health Region, Local Health Department, or email to the Texas Immunization Registry at immtrac2@dshs.texas.gov
- You can also mail completed forms to:
  Immunization Section,
  Department of State Health Services
  ImmTrac2 (MC 1946)
  P.O. Box 149347
  Austin, TX 78714

Introducing ImmTrac2.

You won't believe your eyes.

Enroll today at ImmTrac.com

TEXAS Health and Human Services | Texas Department of State Health Services

Texas Department of State Health Services
Immunizations Section
Stock # 11-15065 Rev. 11/2024

Texas Immunization Registry

Become an authorized ImmTrac2 organization

ImmTrac makes seemingly impossible tasks easy:

History And Forecasting

- Access received immunizations records
- See recommended immunization schedules

Enhanced Recall And Reminder Functions

- Send needed vaccines notices
- Send missed vaccines reminders

Better EMR Data Exchange

- Generate and submit data with HL7 interface.

Ad Hoc Reports

- Get reports specific to an organization or client

School And Childcare Reports

- Manage reports independently

Passwords

- Reset your password any time.

Free And Secure

- No cost to you or your patients

Improved Search Functions

- Easily find patients out of compliance

Who can become an authorized user?

- Health care providers
- Schools
- Childcare facilities
- Hospitals
- Pharmacies

ImmTrac by the numbers

19.8 Million
Texans' immunization records

36,000
Organizations utilize ImmTrac2 to store their immunizations

She'll need vaccine records for a lifetime.

Let's help her keep them organized.

Enroll today at ImmTrac.com

Adult consent form

(English and Spanish) from DSHS

To learn more about ImmTrac2, visit dshs.texas.gov/immunizations/public, call 800-348-9158, or email ImmTrac2@dshs.texas.gov.

Minor consent form

(English and Spanish) from DSHS

A parent or legal guardian will need to fill out one form per child. Only one consent form is needed until a child turns 18.

Scan the QR codes provided or visit dshs.texas.gov/immunizations/public/forms.
Send your completed ImmTrac2 Adult or Minor Consent Form to your authorized health care provider, local health department, or DSHS ImmTrac2 Service Offices.

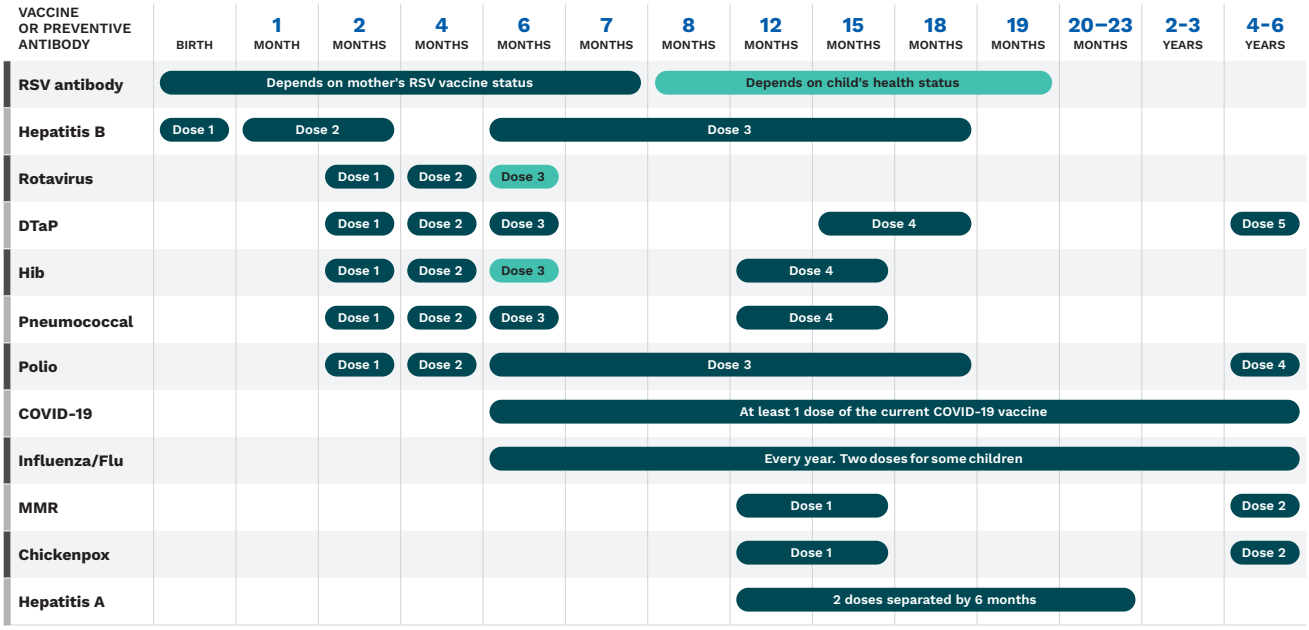
Immunization Schedules

cdc.gov/vaccines-children/schedules/index.html

Your child needs vaccines as they grow!

2025 Recommended Immunizations for Birth Through 6 Years Old

Want to learn more?
Scan this QR code to find out which vaccines your child might need. Or visit **www2.cdc.gov/vaccines/childquiz/**



KEY

- ALL children should be immunized at this age
- SOME children should get this dose of vaccine or preventive antibody at this age

Talk to your child's health care provider for more guidance if:

1. Your child has any medical condition that puts them at higher risk for infection.
2. Your child is traveling outside the United States. Visit **wwwnc.cdc.gov/travel** for more information.
3. Your child misses a vaccine recommended for their age.

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

FOR MORE INFORMATION
Call toll-free: **1-800-CDC-INFO (1-800-232-4636)**
Or visit: **www2.cdc.gov/vaccines/childquiz/**

AAFP AMERICAN ACADEMY OF FAMILY PHYSICIANS

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

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