

Getting It: A Disease...A Vaccine



Note to Educator

Meningococcal disease, commonly known as meningococcal meningitis, is a serious bacterial infection that can lead to death or permanent disability within hours of first symptoms. Teenagers and college students are at increased risk for contracting this devastating disease and account for nearly 30 percent of all cases in the U.S. However, nearly 85 percent of cases among this age group can be potentially prevented through immunization.

The Centers for Disease Control and Prevention (CDC) recommends meningococcal vaccination for pre-teens at their preadolescent doctor's visit (age 11-12). For those not previously vaccinated, the CDC recommends immunization before entering high school (about age 15) or for college freshmen living in dormitories.

Given the quick progression and devastating nature of meningococcal disease, it is important for parents and students to be educated about its symptoms and how to prevent infection, including immunization. To assist you in this effort, the National Meningitis Association (NMA) has developed the enclosed educational video and materials that can be easily incorporated into a lesson on the disease. NMA is a nonprofit organization founded by parents of children who have died or live with permanent disabilities as a result of meningococcal disease, whose mission is to educate families, medical professionals and others about bacterial meningitis and prevention approaches to the disease.

Getting It: A Disease... A Vaccine Lesson Plan

GRADE LEVEL 6+
ESTIMATED TIME 40-45 MINUTES, INCLUDING VIDEO

Objective

To provide students with a broad understanding of the severity of meningococcal disease, its symptoms and risk factors, and the importance of prevention.

Required Materials

- Getting It: A Disease ... A Vaccine Educational Video DVD
- Letter to Parents
- Meningococcal Disease Fact Sheet
- Questions and Answers
- Interactive Student Activity
- Symptoms Poster

Suggested Lesson

Begin the lesson by assessing students' current knowledge and awareness of meningococcal disease through a class discussion. Show the "Getting It: A Disease ... A Vaccine" meningococcal disease educational video to the class. Following the video, gauge students' reactions to the subject (e.g., how the stories in the video made them feel). Utilizing the enclosed fact sheet, questions and answers document and symptoms poster, discuss the risks and symptoms of meningococcal disease as well as the available methods of prevention. Photocopy and distribute the enclosed meningococcal disease fact sheet to students to bring home to their parents, along with the sample letter to parents (you may choose to mail this instead, or deliver directly to the parents at a school function or back-to-school night). Use the enclosed interactive activity to test students' understanding of the disease by assigning it as a homework assignment for extra-credit, or during class as a tool for further discussion.

Interactive Activity Answers

1-Meningococcal disease is a rare but serious bacterial infection; symptoms include sudden high fever, headache, stiff neck, nausea, vomiting and exhaustion and/or a rash; 2-pre-teens at preadolescent doctor's visit (age 11-12), teenagers before entering high school (about age 15), college freshmen living in dormitories; 3-b; 4-possible answers: brain damage, hearing loss, kidney disease, limb amputations, death; 5-d; 6-f; 7-answers may vary; 8-answers may vary; 9-answers may vary; 10-answers may vary.

Dear Parent,

As part of your child's health curriculum, we have incorporated a lesson about the dangers of meningococcal disease, a potentially deadly bacterial infection that can strike adolescents and young adults.

Meningococcal disease, commonly known as meningococcal meningitis, affects 1,400 to 2,800 Americans each year. Teenagers and college students are at increased risk for contracting meningococcal disease compared to the general population, and account for nearly 30 percent of all cases in the U.S.

Though rare, the disease comes on quickly and can lead to death or permanent disability, such as brain damage, hearing loss, kidney disease and limb amputations, within hours of first symptoms. The disease is often misdiagnosed, since early symptoms resemble the flu. Symptoms may include sudden high fever, headache, stiff neck, nausea, vomiting, exhaustion and sometimes a rash.

Our school has joined efforts with the National Meningitis Association (NMA) to inform students and parents about the risks of meningococcal disease and the benefits of immunization. Vaccination can potentially prevent almost 85 percent of cases occurring among teenagers and college students.

The Centers for Disease Control and Prevention (CDC) recommends meningococcal vaccination for pre-teens at their pre-adolescent doctor's visit (11- to 12-year-olds), previously unvaccinated adolescents before entering high school (15-year-olds) and college freshmen living in dormitories.

Immunization is the most effective means of preventing meningococcal disease, but students can also reduce their risk of contracting the disease by not sharing water bottles, utensils or any items that touch a person's mouth, since the disease is transmitted through saliva.

We encourage you learn more about meningococcal disease and prevention and speak to your child's doctor about immunization. We also urge you to speak to your child about good hygiene, not sharing personal items that may help transmit the disease and the school discussion about meningitis and prevention. For more information visit the NMA Web site at www.nmaus.org.

Sincerely,

Meningococcal Disease Quick Facts

- Meningococcal disease is caused by the bacteria *Neisseria meningitidis*.
- Meningococcal disease can take two forms: a swelling of the brain and spinal cord (meningitis) or an infection of the blood (meningococemia).
- Lifestyle factors common among teenagers and college students are thought to be linked to the disease.
- Up to 20 percent of meningococcal disease survivors have long-term disabilities such as brain damage, hearing loss or loss of limbs.
- One out of four cases in teenagers and college students will result in death.
- Vaccination protects against four of the five types of bacteria that cause meningococcal disease and the majority of cases in teenagers and college students.

Facts about Meningococcal Disease and Vaccination

What is meningococcal disease?

Meningococcal disease, commonly known as meningococcal meningitis, is a rare but serious bacterial infection that can strike teenagers and college students. The disease can cause swelling of the tissues surrounding the brain and spinal cord or cause blood infection. It can lead to death or permanent disability, such as hearing loss, brain damage or loss of arms and legs, within hours of first symptoms.

Who can get meningococcal disease?

Anyone can get meningococcal disease, but teenagers and college students are more susceptible to infection. Nearly 85 percent of cases among teenagers and college students can potentially be prevented by getting vaccinated.

Why are teenagers and college students more likely to get meningococcal disease?

There are certain factors that are common among teenagers and college students that may put them at higher risk for getting the disease. These include living in crowded areas like dormitories, boarding schools and sleep-away camps; not getting enough sleep, which weakens the immune system; sharing things that touch a person's mouth, like drinking glasses or utensils, since the disease can be spread through saliva; and cigarette smoking and alcohol use.

How is the disease spread?

Meningococcal disease is spread through direct contact with saliva and other respiratory droplets from carriers of the bacteria that cause meningococcal disease, like through kissing, coughing, sneezing and sharing items that touch the mouth.

What are the symptoms of meningococcal disease?

The symptoms of meningococcal disease are like those of the flu and may include sudden high fever, headache, stiff neck, nausea, vomiting and exhaustion. Some people may also develop a rash. The disease moves quickly, so it is very important to see your doctor if you have two or more of these symptoms, and they occur suddenly or are severe.

Can meningococcal disease be prevented?

Getting vaccinated is the best way to prevent meningococcal disease. You also can help prevent the disease by not sharing certain items that touch a person's mouth, like utensils and drinking glasses, as the disease can be spread through saliva. Also, strengthening your immune system by not smoking cigarettes or drinking alcohol and getting enough sleep and exercise can help reduce your risk of getting the disease.

Who should be vaccinated against meningococcal disease?

The Centers for Disease Control and Prevention (CDC) recommends meningococcal vaccination for pre-teens during their pre-adolescent doctor's visit (11- to 12-year-olds), previously unvaccinated teenagers before they enter high school (15-year-olds) and college freshmen living in dormitories.

Where can I find more information?

For more information visit the National Meningitis Association Web site at www.nmaus.org or the CDC Web site at www.cdc.gov.

Take this quiz to test your knowledge of meningococcal disease.

1) What is meningococcal disease? What are some of its symptoms?

2) Who should be immunized against meningococcal disease?

3) Meningococcal disease can only be spread to another person by those who are very sick and showing symptoms of the disease.

- a) True
- b) False

4) Name three potential consequences of meningococcal disease.

- a) _____
- b) _____
- c) _____

5) What percentage of meningococcal disease among teenagers and college students can be potentially prevented by getting vaccinated?

- a) 10%
- b) 45%
- c) 73%
- d) 85%

6) How can someone contract meningococcal disease?

- a) Sneezing
- b) Kissing
- c) Coughing
- d) Sharing drinks
- e) Smoking cigarettes
- f) All of the above

7) How did you feel while watching the video? Describe your emotions while hearing the stories of the teenagers who were affected by meningococcal disease.

8) You just watched the stories of McKenzie, Robert, Ashley, Kayla, and Evan, whose lives were cut short or changed dramatically because of meningococcal disease. Of all their stories, which touched you the most, and why?

9) How can meningococcal disease be prevented? What are the things you will do now to protect yourself from getting meningococcal disease?

10) What do you think is the take-away message from the meningococcal disease video?
