

Menacing Meningitis

By Guy Falotico

This rare but dangerous disease can be stopped.



*Courtesy of Lauren
Leeber*

Lauren Leeber

You wouldn't know it now, but Lauren Leeber of New York was once very sick. She got sent home from day care on the day before Halloween, and by the next day, she was in the hospital with a type of the disease called *meningitis*, fighting for her life. It got so bad that she lost a hand, some fingers, and parts of her legs. Later, she needed a new kidney.

Although it's been six years since Lauren, now 10, came down with meningitis, she recalls enough from that time to know that what she went through was very difficult. "I would not wish meningitis on my worst enemy," she says.

What Is It?

Meningitis is a disease that involves swelling of the meninges, which are tissues that cover your brain and spinal cord. The disease is *contagious* and spreads easily. That means it is passed when an infected person has direct contact with another person. That usually happens through coughing, sneezing, or kissing.

Meningitis is hard to diagnose because its early symptoms are similar to those of the flu. They include fever, headache, stiff neck, and throwing up.

Rashes are also common. But if meningitis is not picked up by a doctor quickly, serious problems— even death—can occur in just a few hours.

When meningitis is caught early enough, people have a greater chance of beating it. For example, take Kaeley Hamilton, of Florida, who was 8 when she got sick with meningitis.

"I had all the typical symptoms of the flu, but the fever was really high and made my mom nervous, so we went to the doctor," recalls Hamilton, now 19. "They caught the meningitis early."

There are two types of meningitis. One, *viral meningitis*, is caused by a virus. There is no medicine to treat viral meningitis, but it is not as dangerous as the other type. People sick with viral meningitis usually get better on their own. *Bacterial meningitis* is the more dangerous form, especially when it is caused by a type of bacterium called *meningococcus*. It is treated with antibiotics. But those drugs work only if the disease is caught early.

Meningococcal meningitis is rare. It strikes about 3,000 Americans each year. Still, teens and young adults have a greater chance of getting the disease compared with other people. That's because they are more often in crowded settings that can give this type of meningitis a chance to spread, such as schools, college dormitories, or summer camps.

Teens with meningococcal meningitis die of the disease more often than younger or older people. About one in five of those who survive it end up with other health problems, such as brain damage, kidney disease, or damaged arms and legs.

Kayla St. Pierre, of Massachusetts, had meningococcal meningitis when she was 10. "One day I felt sluggish at school, and the nurse said I had the flu and sent me home," says St. Pierre, now 20. "The next morning I had a rash all over my body. I didn't know what it was, but my parents knew something was wrong, so we went to the emergency room."

Once she got there, they found out what was wrong. But the disease had already taken hold. Both of her legs needed to be *amputated*, or removed, at the knee. She lost a few fingers too. St. Pierre went through months of surgeries to repair the skin damage from the rash and physical therapy to strengthen her muscles.

Fighting Back

The good news is that meningococcal meningitis can be prevented with a vaccine. Health experts recommend that most people between the ages of 11 and 18 get the shot.

Not everyone should get vaccinated, however. Some people have allergies to the vaccine's ingredients. People who have a disease called Guillain-Barré syndrome should not receive the vaccine either. But for almost everyone else, the benefits of getting the vaccine far outweigh the risks.

"The most important message is to get vaccinated," says Dr. John Sinnott. He is an infectious disease specialist at the University of South Florida in Tampa. Vaccination against meningitis is "absolutely essential," he says, "and one of the greatest advances in medicine."

Meningitis Signs

It can be hard to tell whether a person has meningitis. That's because the symptoms, or signs, of the disease can look similar to other illnesses. Meningitis symptoms are serious. They include:



Stiff neck



Headache



Fever



Light sensitivity



Drowsiness



Joint pain



Throwing up



Confusion



Rash

Jason Lee

How to Protect Yourself

The best way to avoid meningitis is by getting the vaccine. Here are some other ways to keep from being infected.

- **Don't share water bottles**, drinking glasses, or eating utensils with friends.
- **Don't share lip balms** or lip glosses.
- **Wash your hands often**, especially before eating. Use warm water and soap, and lather for at least 20 seconds.
- **Eat healthy foods.**
- **Get enough sleep each night.**

What Is a Vaccine?

A vaccine is a shot that prevents a certain disease. It's made with very small parts of the germs it was created to fight. The vaccine teaches your body how to fight the disease for itself. Usually the germs have been killed before they are made into vaccines. They won't come back to life inside you! Some types of vaccines need only one shot to protect you for the rest of your life. Other types, such as the one for seasonal flu, change from year to year and need to be given annually.



Istock

Name: _____

Date: _____

1. According to the passage, how many Americans get meningitis each year?

- A 3,000
- B 3,200
- C 300
- D 30,000

2. Meningitis has many symptoms. Which of the following is NOT one of the effects of meningitis described in the passage?

- A headache
- B fever
- C nosebleeds
- D rash

3. Based on the passage, which of the following people would be most likely to get meningitis?

- A a very young baby
- B an elderly person
- C a teenager who spends a lot of time at camp
- D an adult who works from home

4. Read the following sentences and answer the question below: "Some types of vaccines need only one shot to protect you for the rest of your life. Other types, such as the one for seasonal flu, change from year to year and need to be given annually."

What does the word **annually** mean?

- A every year
- B once in your life
- C once a month
- D every day

5. This passage is mostly about

- A the effects of the flu and how to avoid getting it
- B the effects of meningitis and how to avoid getting it
- C where you might get meningitis
- D what types of vaccines you should get

6. According to the passage, what are the types of meningitis?

7. Based on the passage, why is it often difficult for most people to diagnose meningitis early?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Meningitis is a serious disease, _____ there is a vaccine that can prevent you from getting it.

- A after
- B because
- C since
- D but

9. Answer the following questions based on the sentence below.

People may not be able to identify meningitis because its early symptoms are similar to those of the flu.

Who? people

(may not) What? _____

Why? _____

10. Read the vocabulary word and definition below and complete questions 10a, 10b, and 11.

Vocabulary Word: essential (es · sen · tial): absolutely necessary; most important.

10a. Read the sentences below and underline the word **essential**.

1. Doctors think that vaccinations, like the one for meningitis, are essential to avoid certain diseases.
2. The teacher sent home a back-to-school list with the essential school supplies we needed for the year.
3. Flour is an essential ingredient for making bread.
4. Water is an essential part of human life because we could not live without it.
5. Most flowers die if they never get sunlight, because light is essential for plants to grow.

10b. Which is essential for plants to grow?



11. What are some essential things someone must do to make sure he or she is in good health?

Teacher Guide & Answers

Passage Reading Level: Lexile 880

Featured Text Structure: Cause/Effect – the writer presents the reason an event happened and its results

Passage Summary: This passage describes meningitis, which causes the meninges to swell over the brain and spinal cord. The passage describes the disease, its effects on people, the symptoms of the disease, and how to protect your body from the disease.

1. According to the passage, how many Americans get meningitis each year?
 - A 3,000**
 - B 3,200
 - C 300
 - D 30,000
2. Meningitis has many symptoms. Which of the following is NOT one of the effects of meningitis described in the passage?
 - A headache
 - B fever
 - C nosebleeds**
 - D rash
3. Based on the passage, which of the following people would be most likely to get meningitis?
 - A a very young baby
 - B an elderly person
 - C a teenager who spends a lot of time at camp**
 - D an adult who works from home
4. Read the following sentences and answer the question below: "Some types of vaccines need only one shot to protect you for the rest of your life. Other types, such as the one for seasonal flu, change from year to year and need to be given annually."

What does the word **annually** mean?

 - A every year**
 - B once in your life
 - C once a month
 - D every day
5. This passage is mostly about
 - A the effects of the flu and how to avoid getting it
 - B the effects of meningitis and how to avoid getting it**
 - C where you might get meningitis
 - D what types of vaccines you should get
6. According to the passage, what are the types of meningitis?

Suggested answer: There are two types of meningitis: viral meningitis and bacterial meningitis. [paragraph 7]

7. Based on the passage, why is it often difficult for most people to diagnose meningitis early?

Suggested answer: Meningitis is hard to diagnose because the symptoms are similar to those of the flu. People may think that their illness is not really serious and may not get to the doctor in time for treatment. [paragraphs 4-6]

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Meningitis is a serious disease, _____ there is a vaccine that can prevent you from getting it.

- A after
- B because
- C since
- D **but**

9. Answer the following questions based on the sentence below.

People may not be able to identify meningitis because its early symptoms are similar to those of the flu.

Who? People

(may not) What? **be able to identify meningitis**

Why? **because its early symptoms are similar to those of the flu**

10. ReadWorks recommends that you teach this vocabulary word to the whole class out loud using the four steps listed below.

Vocabulary Word: essential

Step 1: Introduce the word

- a. Teacher writes the word on the board and divides it into syllables: (es · sen · tial)
- b. Teacher says: "This word is essential. What is the word?" [All students reply together out loud: "essential."]

Step 2: Provide a child-friendly definition

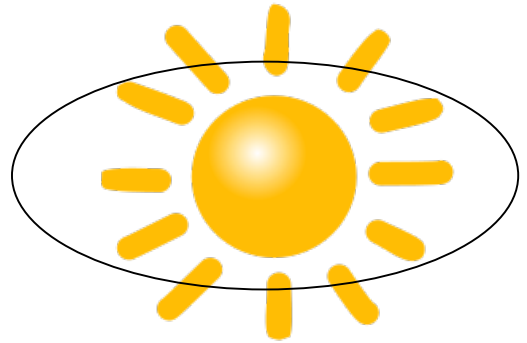
- a. Teacher says: "Essential means absolutely necessary."
- b. Teacher says: "In the passage the writer tells us that Dr. John Sinnott thinks that vaccination against meningitis is essential, which means that he thinks it is absolutely necessary."
- c. Teacher says: "What is the word?" [All students reply together out loud: "essential."]

Step 3: Practice the word

Teacher provides examples and additional opportunities to repeat the word. Read the first sentence out loud to your students. Begin reading it again and when you come to the vocabulary word prompt students to say the vocabulary word out loud. Then, finish reading the sentence out loud to your students.

- 10a.**
1. Doctors think that vaccinations, like the one for meningitis, are essential to avoid certain diseases.
 2. The teacher sent home a back-to-school list with the essential school supplies we needed for the year.
 3. Flour is an essential ingredient for making bread.
 4. Water is an essential part of human life because we could not live without it.
 5. Most flowers die if they never get sunlight, because light is essential for plants to grow.

10b. Which is essential for plants to grow?



11. What are some essential things someone must do to make sure he or she is in good health?

Suggested answer: It is essential to get all of your vaccinations, go the doctor regularly, and make sure you are eating healthy, getting exercise, and sleeping enough.

Suggested Additional Vocabulary: swelling, contagious, symptoms, sluggish, outweigh, annually