

What doctors want patients to know about West Nile virus

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Sara Berg, MS

News Editor

AT A GLANCE: Here are the key things you will learn about West Nile virus from Chad C. Braden, MD, a family physician, and Erica Kaufman West, MD, an infectious diseases physician, in this article:

- West Nile virus spreads through the bite of an infected mosquito, and cases typically peak in August and September.
- About 80% of people who are infected with the West Nile virus have few or no symptoms, while others may develop fever, fatigue, body aches, rash, nausea or vomiting.
- About 1% of infections lead to neuroinvasive disease, which can cause severe headache, neck stiffness, confusion, tremors, balance problems or paralysis.
- Adults 65 or older and people with weakened immune systems or chronic conditions face a higher risk of severe illness.
- There is no vaccine for West Nile virus, so using insect repellent, wearing protective clothing and removing standing water around the home are important to preventing bites.

Mosquito bites are often little more than an itchy annoyance. But some mosquitoes can spread West Nile virus, the leading cause of mosquito-borne disease in the continental U.S. In fact, each year more than 1,300 people develop severe illness that affects the central nervous system and more than 130 people die, according to the Centers for Disease Control and Prevention (CDC). Cases are most common during summer and fall, when mosquito activity is highest.

Most people infected with West Nile virus do not develop symptoms while others may experience fever, headache, body aches, vomiting, diarrhea or a rash. In rare cases, the infection can cause serious inflammation of the brain—called encephalitis—or the tissues surrounding it (meningitis), leading to lasting health problems or death.

There is no vaccine or medication that prevents West Nile virus disease in people, which makes avoiding mosquito bites an important part of lowering risk. Understanding how West Nile virus spreads, which symptoms require medical attention and how to protect yourself can help make mosquito season safer.

The AMA's What Doctors Want Patients to Know™ series gives physicians a platform to share what they want patients to understand about today's healthcare headlines.

In this installment, two physicians took time to discuss what patients should know about West Nile virus and how to prevent infection. They are:

- [Chad C. Braden, MD](#), a family physician at Ochsner Health in Baton Rouge, Louisiana.
- [Erica Kaufman West, MD](#), an infectious diseases physician and director of infectious diseases in the department of science, medicine and public health at the AMA.

[Ochsner Health](#) is part of the [AMA Health System Member Program](#), which provides enterprise solutions to equip leadership, physicians and care teams with resources to help drive the future of medicine.

Most people with West Nile virus have no symptoms

“West Nile virus is a virus that is spread through the bite of an infected mosquito,” said Dr. Kaufman West. “Typically, birds are the hosts of West Nile virus, but humans can become incidental hosts if a mosquito bites us instead of another bird.”

The CDC estimates about 2,000 cases per year and about “80% of people who are infected don’t develop symptoms at all,” Dr. Braden said. “So, only 20% of people develop symptoms, and then a much smaller percentage of people actually develop very scary

symptoms. The symptoms of West Nile virus can kick in within a couple of days of being infected. It can also be a couple of weeks before you have symptoms.”

Symptoms of West Nile virus typically include “fevers, muscle and joint aches, fatigue, a transient pink rash and occasionally nausea and vomiting,” Dr. Kaufman West said. Meanwhile, “about 1% of people will develop neuroinvasive disease. This is marked by symptoms such as severe headache and neck stiffness, confusion, tremors or loss of balance.”

“Rarely, West Nile virus can lead to acute flaccid paralysis—like polio—and even death,” Dr. Kaufman West said. “Over 50% of people who survive a neuroinvasive illness will have ongoing symptoms a year later.”

West Nile virus season is summer through fall

“The typical West Nile virus season is mid-summer to early fall,” said Dr. Braden, noting that it also “depends on what part of the country you’re in. Some parts of the country this year have been seeing a little bit earlier in the summer season.”

Ultimately, West Nile virus season “is June to October with cases peaking in August and September,” Dr. Kaufman West said, noting that “a typical case count for June would be 10 human cases.”

However, “in June 2026, the CDC had 48 cases reported,” she said, adding that the “CDC tracks [West Nile virus activity](#) at the county level, so you can monitor activity close to you.”

Know if you are at risk for West Nile virus

“Anyone who is bitten by a mosquito is at risk for West Nile virus. That’s really the only way you can get it,” said Dr. Braden. “You can’t get it from some other person next to you who has West Nile virus.”

“So, people who are bitten by a mosquito, people who are outside are going to be at more risk, especially during the dawn and dusk times when there are more mosquitoes out,” he

said.

Additionally, “people who are at risk for developing severe disease are those over 65 years old,” Dr. Kaufman West said, “and those with immunocompromising conditions.”

You are also at risk if you have “chronic disease such as diabetes, hypertension and kidney disease,” she said, noting people are both at risk for West Nile and also the severe disease.

West Nile virus is spread by *Culex* mosquitoes

“There are a few types of mosquitoes that are most likely to carry West Nile virus,” said Dr. Braden. West Nile virus is primarily carried and spread by *Culex* mosquitoes, specifically the *Culex pipiens*, *Culex tarsalis* and *Culex quinquefasciatus* species.

These mosquitoes pick up the virus after biting birds that are infected with West Nile virus and then pass it to people and animals when they bite.

Diagnosing West Nile virus starts with an exam

“The initial provisional diagnosis is based on symptoms and risk factors, such as having a lot of mosquito bites,” Dr. Braden said. “But the actual confirmatory testing is the blood test that is done for the typical West Nile virus infections.”

“For those with neuroinvasive symptoms, doctors will do a lumbar puncture and send spinal fluid for evaluation,” Dr. Kaufman said. Also, “there is a blood test that can be completed to diagnose West Nile virus. But because West Nile often causes asymptomatic disease, it can be difficult to know if the positive test is new or old.”

There is no cure for West Nile virus

“There is no cure, no real treatment per se for West Nile virus,” said Dr. Braden. Treatment for West Nile virus focuses on managing symptoms through “rest, fluids and time.”

Treatment also includes over-the-counter pain relievers for mild cases or hospital care for severe infections.

If you get West Nile virus once, you may be immune

“It’s not impossible to get it a second time, but it’s felt to be lifetime immunity once you get infected with the West Nile virus,” Dr. Braden said.

However, said Dr. Kaufman West, lifelong immunity or protection from West Nile virus may not happen if “you have an immunocompromising condition,” such as cancer.

You may also not have lifelong immunity or protection from West Nile virus if you “take a medication that weakens the immune system,” she said. In these instances, your immunity might wane over time, placing you at risk again.

Take steps to prevent West Nile virus

There are no licensed vaccines or medicines available to prevent West Nile virus in people. That is why the best way to protect yourself and loved ones from West Nile virus is to prevent mosquito bites.

First, “keep mosquitoes from breeding in your yard,” said Dr. Kaufman West. You can do this by removing “toys or empty flowerpots, anything that can hold water. Any decorative water features should always be one with moving water.”

Additionally, “keep screens on any doors and windows that you plan to leave open,” she said, noting that “mosquitoes are typically active at dusk and in the evening, so wear an EPA-registered mosquito repellent and loose-fitting long sleeves and pants and avoid open-toed shoes.”

But remember, “small babies can’t use mosquito repellents so keep a net over their stroller to avoid bites,” Dr. Kaufman West said.

Know when to call your doctor

It is important to contact your physician if you or a member of your family is exhibiting “signs of meningitis—fevers with headache and neck stiffness,” Dr. Kaufman West said, “or encephalitis, which is fever with new confusion, tremors or loss of balance.”

Additionally, “anyone with new onset of muscle weakness or paralysis should also seek care,” she said.

“If there’s concern for West Nile virus, if you develop a fever, profound muscle weakness, disorientation or delirium, severe headache those are very scary signs and you should contact your physician,” Dr. Braden emphasized. “Those can be from many different things, but if you’re in the right setting at the right time of year, West Nile virus infection has to be one of the considerations.”