Each summer brings picnics, barbeques, and, unfortunately, the possibility of mosquito-born West Nile Virus. Today, I'm talking with Jennifer Lehman, an epidemiologist with CDC who's joining me by phone from CDC's Fort Collins facility in Colorado. She’s going to explain West Nile virus and how to avoid infection. Welcome to the show, Jennifer.

[Jennifer Lehman] Thanks, Matthew. It’s good to be here.

[Matthew Reynolds] What is West Nile virus and how is it spread?

[Jennifer Lehman] Well, West Nile virus is an arbovirus that is spread from mosquitoes. It has moved westward from 1999 to present and it’s now considered endemic throughout the U.S., which means it’s pretty much here to stay. All of our 48 mainland states have actually had human cases except for Maine.

[Matthew Reynolds] What are the symptoms of a West Nile Virus infection?

[Jennifer Lehman] Well the symptoms depend on the severity of the case. So if you have a severe case, otherwise know as West Nile encephalitis or meningitis, the symptoms can include headache, a high fever, stiff neck, maybe you might even be disoriented, you could go into a coma, have tremors, convulsions, maybe even paralysis. Then you can have West Nile fever and it’s estimated that about 20 percent of people who become infected with West Nile will develop West Nile fever. Those symptoms include fever, headache, tiredness, maybe some body aches, some people have reported a skin rash, and maybe even swollen lymph glands. But most people who are infected with West Nile virus will not develop any type of illness, but you can not know ahead of time if you are going to get sick or not when you are infected, and these people are called asymptomatic, which just means you don’t have any symptoms.

[Matthew Reynolds] For the people that do have symptoms, can those people seek treatment? Can this disease be treated?
You know, there isn’t really a specific treatment for West Nile virus infection. In the more severe cases, sometimes they involve hospitalization, IV fluids, maybe even being put on a ventilator, and even good nursing care.

Well it sounds then that prevention is the best strategy for West Nile virus.

Correct.

So what can people do to protect themselves?

The most important thing to do is for people to avoid the mosquito bites. You know, you can use an effective insect repellent, such as some products that contain DEET or Picaridin, or even oil of lemon eucalyptus. You know, you want to put this on when you go outdoors; you can wear long pants or you can wear long sleeves for additional protection, but the mosquitoes that spread West Nile virus are most likely to bite from dusk to dawn, so you should be either using mosquito repellent then or limit your time outdoors during those hours. You can empty any standing water around your home and you can also support your community-based mosquito management program in your area.

So what should I do if I’m out hiking or at the family barbeque, and I find a mosquito that’s attached to my arm? Should I be concerned; should I see a doctor or wait for symptoms to develop and hope for the best?

Kill the mosquito first. But, usually it takes 2 to 15 days for symptoms to occur, so I would wait for your symptoms to occur. I wouldn’t necessarily go see a doctor, but if you or your family members develop symptoms, such as a high fever, confusion or muscle weakness, or even severe headaches, then you should see your doctor or health care provider immediately.

A number of people are probably wondering too, is this a disease that can affect my pets or if I own livestock, are they at risk too?

Actually, unvaccinated horses are at risk, but other household pets and livestock can become infected. We’ve actually had a very small number of dogs and cats that have been reported to CDC that have had West Nile. It’s mainly a cycle between birds and mosquitoes and actually, initially, illness and fatality in horses was a big concern. But, now there’s a vaccine available for your horses, so you should make sure you vaccinate your horses if you have them.

Any precautions that people should take for pets?
[Jennifer Lehman] You know, I would bring them in doors, especially if they’re going to be spraying. Keep your windows closed, keep them in doors. But otherwise, they’re pretty immune to getting the virus, so you should be OK just doing what you normally do with your pets.

[Matthew Reynolds] Jennifer, thanks for taking the time to share this information with our listeners today.

[Jennifer Lehman] No problem. It was great to be here.

[Matthew Reynolds] That’s it for this week’s show. Don’t forget to join us next week. Until then, be well. This is Matthew Reynolds for A Cup of Health with CDC.

[Announcer] To access the most accurate and relevant health information that affects you, your family and your community, please visit www.cdc.gov.