

A Microscopic Menace

The vast majority of people infected with West Nile virus don't even feel sick.

Question: How common is the West Nile virus, and how can I keep from getting it?

C.H.

Rancho Palos Verdes, California

Answer: The West Nile virus infection is very rare. In fact, less than 1 percent of mosquitoes actually carry it, and less than 1 percent of people infected by it develop encephalitis.

Those with a higher risk than normal of developing encephalitis include the elderly, people taking medications that suppress the immune system and anyone with HIV or any other immune-suppressing illness. According to the Centers for Disease Control and Prevention (CDC), four people have become infected with the virus from organ transplants. The agency also says the virus probably can be transmitted by transfusion.

When a mosquito bites a bird or an animal that is infected with the virus, the virus stays in the mosquito's salivary glands. When that mosquito then bites a human, the virus can be transmitted.

The vast majority of people who have been infected with the virus do not have any symptoms at all. They don't even feel sick. According to the CDC, about 20 percent of people infected with the virus develop flulike symptoms, which begin between three and 14 days after the person is bitten.

Approximately 1 in 150 people will develop an infection in the brain or spinal cord. When this occurs to a person, he many times will develop a high fever, severe headache, stiff neck, disorientation or muscle weakness. If you have these symptoms, it is possible you have developed encephalitis, and you should contact your physician immediately.

The best way to protect yourself from the virus is to stay indoors when mosquito activity is at its greatest—dusk, dawn and early evening. Wear long pants and a long-sleeved shirt when going outdoors.

Insect repellent can be applied sparingly to exposed skin. Repellents usually contain either permethrin or DEET. Brands with greater than 35 percent DEET do not provide any additional protection, and I do not recommend their use, especially on young children. You should consult your pediatrician before using insect repellents with DEET on youngsters.

Nutritional supplements that may help with mild cases of West Nile virus include buffered vitamin C, approximately 2,000 mg (milligrams) three times a day; also Lysine, 1,000 mg three times a day; freeze-dried garlic; olive leaf extract; and Transfer Factor, all of which can be found in health-food stores.

Question: I have a friend who has severe arthritis caused by Lyme disease. What can I do to avoid getting this illness?

M.L.

Le Mars, Iowa

Answer: Lyme disease is not spread from human to human. It is

transmitted from certain kinds of ticks. It is caused by a bacteria called *Borrelia burgdorferi* that usually lives in the salivary glands of these infected ticks. After the tick attaches to the skin, it takes usually 36 to 48 hours for the bacteria to transmit and an average of 10 days after the bite for symptoms to occur.

Many times an expanding red rash, called erythema migrans (EM), develops at the bite. It may look like a bull's eye that slowly enlarges. This is early Lyme disease, and it can be treated easily with antibiotics such as Doxycycline.

Approximately 12,000 cases of Lyme disease are reported in the United States every year. It is much more common among young children and those who work or live in wooded areas.

Unfortunately, most people don't recall being exposed to ticks. The expanding red rash of an EM might be missed by a physician, and early flulike symptoms may be diagnosed and treated as such.

If this occurs, later symptoms of Lyme disease can develop, including joint aches and pains, arthritis, memory loss, severe fatigue, neuropathy with weakness or numbness in the arms and legs, and irregular heartbeats.

If you are experiencing any of these symptoms of late Lyme disease, I strongly recommend you see your doctor and have a complete physical examination and blood test for the disease.