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## ***West Nile Virus...concerns and precautions***

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While its true that April showers bring May flowers, they also create the breeding grounds for one of the most unpleasant parts of any spring and summer outdoor activity: **MOSQUITOES**. Certain mosquitoes can act as carriers for disease, for instance the West Nile Virus.

Mosquitoes can carry the virus between birds or between birds and humans. West Nile virus has been commonly found in animals including humans in Africa, Eastern Europe, West Asia, and the Middle East. In 1999 a connection was made between a U.S. outbreak of human West Nile virus infection and disease in birds, especially in American crows in the New York City area. Of the 62 persons with severe illness, seven died. In 2000, 21 cases were reported in this same area, including two deaths. Last fall, several birds were reported to have died from this same viral infection in DuPage County. Although no human cases of West Nile virus have yet occurred in this area, the potential exists for an outbreak.



- ***On site - Report dead or dying crows to Roads and Grounds (x3303). They will arrange transportation to local health authorities for testing.***
- ***Off site - Direct questions to your local Health Department.***

Most people infected with West Nile virus have no symptoms at all. However, some become ill three to 15 days following a bite from an infected mosquito. Based on preliminary evidence, about 25% of infected persons will have a mild form of the illness consisting of fever, headache, body aches, skin rash and swollen lymph glands. People with more severe infections may experience high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions and paralysis. In a few cases, mostly among the elderly, death may occur. There is no documented evidence that a pregnancy would be at risk due to infection with West Nile virus. Persons with severe or unusual headaches following exposure to mosquitoes should seek medical attention as soon as possible.

Even in areas where mosquitoes are known to carry the virus, less than 1% are actually infected. Further, fewer than 1% of people bitten by an infected mosquito will become severely ill. Therefore, the chances that you will become severely ill from any one-mosquito bite are extremely small. People over 50 years of age and those with compromised immune systems have a greater risk of developing severe illness. In a fraction of severe cases, the infection may develop into West Nile encephalitis. This is an inflammation of the brain caused by infection. There is no specific treatment for West Nile virus infection. While most people fully recover, hospitalization may be needed in some cases.

Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then transmit West Nile virus to humans or animals while taking a blood meal. It is important to note that West Nile encephalitis is NOT transmitted from person-to-person. This includes touching or kissing a person who has the disease or a health care worker who has treated someone with the disease. In addition, there is no evidence that a person can get the virus from handling live or dead infected birds. However, persons should avoid barehanded contact when handling any dead animals and use gloves or double plastic bags to place the carcass in a garbage can.



Locally, our most common mosquito, the inland floodwater mosquito, does not carry the West Nile virus. A less common mosquito, the northern house mosquito, can carry the virus and prefers breeding sites that are dirty, stagnant, or polluted: that are often man-made. Mosquitoes can reproduce in any standing water that lasts more than four days. To reduce the mosquito population, minimize or eliminate all standing water and debris.

The best insect repellent to minimize biting contains 25-30% DEET. Always follow label directions; avoid misuse or overuse. Make sure window screens are properly installed and in good repair.

Fermilab has conducted mosquito abatement for more than 25 years. Roads and Grounds uses a ULV spray from a pick up truck-mounted sprayer a couple times a week during mosquito season. This program targets adult mosquitoes. Spray areas typically include Site 29 and Site 58, as well as locations for certain laboratory events. Roads and Grounds will have a larvicide on hand this summer should West Nile virus become a local problem. To help out, building managers and other employees should be vigilant to eliminate mosquito breeding sites such as man-made containers and other items that hold water for long periods of time. Employees with questions about eliminating breeding spots should call Roads and Grounds.

### ***HELP REDUCE THE MOSQUITO POPULATION***

- *Prevent the collection and stagnation of water. Remove, tip, drain, or puncture potential water-holding containers.*
- *Use landscaping to eliminate stagnant water that collects on your property.*
- *Clean and chlorinate swimming pools, outdoor saunas and hot tubs.*
- *Clean vegetation and debris from the edges of ponds and add fish to ornamental ponds.*