

## **Prevention Best Advice for Protection from Mosquitoes**

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While the recent rains have been a blessing and relief from the drought, it has brought an increase in the nuisance of dealing with the bites of mosquitoes. The potential rise in mosquito populations caused by the pools of stagnant water could also increase the chances of mosquito borne diseases such as West Nile virus and the latest mosquito spread threat, the Zika virus.

Zika is a disease caused by the Zika virus, which is spread to people primarily through the bite of an infected *Aedes* species mosquito. The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild with symptoms lasting for several days to a week after being bitten by an infected mosquito. People usually don't get sick enough to go to the hospital, and they very rarely die of Zika. For this reason, many people might not realize they have been infected. However, Zika virus infection during pregnancy can cause a serious birth defect called microcephaly, as well as other severe fetal brain defects. Once a person has been infected, he or she is likely to be protected from future infections.

Mosquitoes act as the vector carrying the virus from avian reservoirs to other mammals, particularly humans and horses. While there have been no reported cases in either in Kansas in 2014, there were 92 reports of West Nile in the state in 2013 and 57 in 2012.

About 80 percent of people who contract West Nile exhibit no symptoms and simply develop long-lasting immunity as a result of exposure. Many of these cases are unreported. The other 20 percent experience flu-like symptoms and may not be diagnosed with the virus. According to the CDC, only one in 150 positive cases of West Nile will develop into the neuro-invasive form of the virus that can lead to paralysis and death.

The best way to prevent contracting any mosquito borne disease is to avoid mosquito bites. Recommendations include wearing long sleeves and pants, as well as a DEET-based insect repellent, especially at dawn and dusk or in areas where mosquito populations are high.

Usually about 30 percent DEET concentration is plenty. Higher concentrations don't offer better protection. Read the label to see how often to reapply.

People can also reduce the mosquito population by eliminating standing water around their home and property. Smaller containers of water, such as pet dishes or birdbaths, should be dumped at least once a week. Also drain any standing water, empty kiddie pools, buckets, and anything else that holds water. Eliminating these breeding environments will reduce populations. Livestock watering tanks can be treated with larvicide in the form of briquets and donuts. These products need to be enclosed in a screen enclosure, because while safe for animals, they will not be effective if eaten.

There are many other precautions that can be taken and some chemical control methods that can be found in the Extension publication; Pest that Affect Human Health - Mosquitoes and West Nile Virus. You can pick one up at our office or get it online at:  
<http://www.ksre.ksu.edu/bookstore/pubs/MF2571.pdf>

The end of the summer is typically the peak for human West Nile cases, but people need to be aware and take necessary precautionary measures against mosquitoes at all times.