

Tree Squirrels: A New Surveillance Tool for West Nile Virus

Why are tree squirrels useful for West Nile virus (WNV) surveillance?

Similar to birds, tree squirrels are susceptible to WNV and can get sick and die from the disease. Reporting and testing dead tree squirrels helps to inform public health and mosquito and vector control agencies when and where there may be WNV-infected mosquitoes that can transmit the infection to people.

Birds have typically been used for WNV surveillance, why include tree squirrels?

Although reporting and testing of dead birds are important tools of the WNV surveillance system, tree squirrels, because they do not fly, provide evidence of highly localized WNV transmission to mammals. The detection of WNV in a dead tree squirrel prompts local vector control agencies to enhance WNV surveillance and control activities in the area where the squirrel was found.

What tree squirrel species are affected?

Western Gray, Fox, and Eastern Gray Squirrels have been tested and found positive for WNV in California.

What are some of the signs of WNV infection in tree squirrels?

Tree squirrels with WNV may display neurological signs such as uncoordinated movement, paralysis, shaking, or circling. It should not be assumed that every squirrel with neurological signs has WNV as there are other factors that cause these symptoms. Do not handle a sick squirrel as they are wild animals and may bite.

What does it mean if a tree squirrel in my neighborhood tests positive for WNV?

There is no evidence that WNV can be acquired by handling dead squirrels, however squirrels often carry fleas and occasionally other diseases. Do not handle dead squirrels with bare hands, instead use a shovel to collect the dead squirrel and place it into a plastic bag – keeping it away from your hands. You can also pick up a dead squirrel by reaching through a plastic bag, grasping the animal and pulling it back into the bag (reversing the bag in the process). This will help prevent any fleas from jumping from the squirrel onto you. You may safely dispose of dead tree squirrels in your trash; alternatively it is acceptable to bury them on your property.

How do tree squirrels get West Nile virus?

Like birds, horses, and people, tree squirrels generally acquire WNV from the bite of an infected mosquito.

Does WNV also affect ground squirrels and chipmunks?

There is currently no evidence to suggest that WNV makes ground squirrels or chipmunks sick. If you notice dead ground squirrels or chipmunks in your neighborhood, contact your county health department.

How should people report dead squirrels?

The public should call the WNV hotline (1-877-WNV-BIRD or 1-877-968-2473) to report dead birds and tree squirrels. In some areas of California, local mosquito and vector control agencies can pick up tree squirrels that have been dead for less than 24 hours and submit these for testing.

More information on WNV and tree squirrels can be found at the California West Nile virus website: <http://westnile.ca.gov>