West Nile Virus and Tree Squirrels

In some regions of California, tree squirrels have tested positive for West Nile virus. Tree squirrels with West Nile virus may display neurological signs such as uncoordinated movement, paralysis, shaking, or circling. It should not be assumed that every squirrel with neurological signs has West Nile virus, as there are other factors that cause these symptoms. Do not handle a sick squirrel as they are wild animals and may bite. Tree squirrels are classified as game mammals by the California Fish and Game Code and can be controlled only as provided by hunting regulations.

What types of tree squirrels have tested positive for West Nile virus in California?
The Western Gray Squirrel (*Sciurus griseus*), Fox Squirrel (*Sciurus niger*), and Eastern Gray Squirrel (*Sciurus carolinensis*) have been found infected with West Nile virus. Western Gray Squirrels are native to California and can be found in oak woodlands and in pine/oak forests. Fox and Eastern Gray Squirrels were introduced from eastern North America and are now established in many California cities. Fox Squirrels are the most commonly encountered tree squirrels in urban areas of California.

**Fox Squirrel** (*Sciurus niger*)
- Body: 13 in. Tail: 11 in.
- Common in urban parks
- Fur on tail and hind feet reddish-orange
- Back is brown to grayish
- Belly cream to orange

**Western Gray Squirrel** (*Sciurus griseus*)
- Body: 12 in. Tail: 12 in.
- Large squirrel
- Native to California
- Found in woodlands
- Back is silver gray
- Belly white
Eastern Gray Squirrel  
(*Sciurus griseus*)
- Body: 10 in.  Tail: 10 in.
- Found in urban parks
- Similar to Western Gray Squirrel but yellow or rusty color on back
- Belly white
- Sometimes occurs as “melanistic” form (all black)

Douglas’s Squirrel  
(*Tamiasciurus douglasii*)
- Body: 7 in.  Tail: 5 in.
- Found in coniferous forests
- Tufted ears may be visible
- Back is reddish olive
- Belly is white
- Also known as “Chickaree”

What does it mean if a tree squirrel in my neighborhood tests positive for West Nile virus? There is no evidence that people can become infected with West Nile virus by being near an infected squirrel or in the yard with a dead one. However, the presence of an infected squirrel does mean that there could be infected mosquitoes nearby, and people should use protective clothing and repellent, and remove standing water on their property where mosquitoes might breed.

How do tree squirrels get West Nile virus? Like birds, horses, and people, tree squirrels generally acquire West Nile virus from infected mosquitoes.

Does West Nile virus also affect ground squirrels and chipmunks? There is currently no evidence to suggest that West Nile virus makes ground squirrels or chipmunks sick. If you notice dead ground squirrels or chipmunks in your neighborhood, contact your county health department.
California Ground Squirrel
(*Spermophilus beecheyi*)
- **NOT TESTED FOR WEST NILE VIRUS**
- Body: 11 in. Tail: 7 in.
- Tail is gray and NOT bushy
- Back is gray-brown with light flecks
- Belly is off-white
- Spends most of time on ground

Chipmunks
(*Neotamias spp.*)
- **NOT TESTED FOR WEST NILE VIRUS**
- Body: 4 - 6 in.
- Tail: 3 - 6 in.
- Side stripes distinct on body and face.
- Commonly observed in campgrounds.

**If I find a dead tree squirrel, can it be tested for West Nile virus?**  If you find a dead squirrel on your property, please report by phone to the West Nile virus hotline at 1-877-WNV-BIRD (1-877-968-2473). In some areas of California, local mosquito and vector control agencies may be able to pick up tree squirrels that have been dead less than 24 hours and submit these for testing. If the squirrel tests positive, you will be notified of the test results within two weeks. If you are not called, then the squirrel tested negative for West Nile virus.

**How should I dispose of dead tree squirrels?**  There is no evidence that West Nile virus can be acquired by handling dead squirrels, but it is best not to handle a dead squirrel or any other dead animal with your bare hands. Use gloves, a shovel, or a plastic bag to place the squirrel in a trash bag for disposal. You may safely dispose of dead tree squirrels in your trash. Alternatively, it is acceptable to bury dead squirrels on your property.