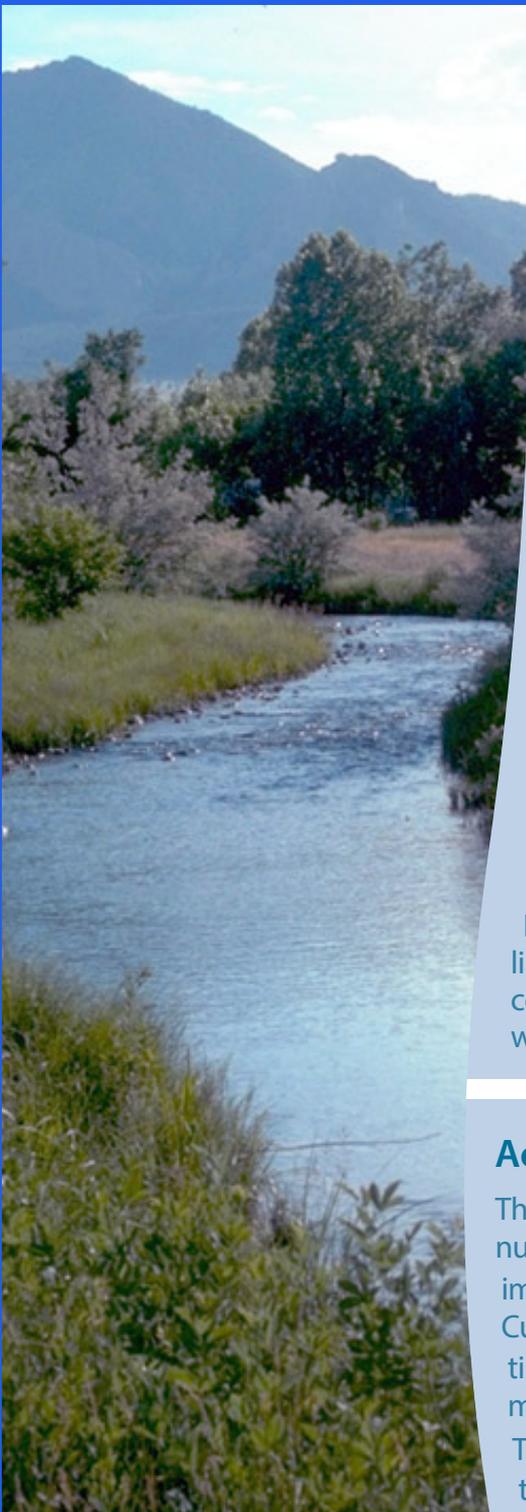


# Preventing West Nile Virus: A Community Effort



## What is West Nile virus?

West Nile virus (WNV) is a disease that is transmitted from mosquitoes to people. In Colorado, only three species of the *Culex* group of mosquitoes can effectively transmit WNV. *Culex* mosquitoes feed on birds that can act as a reservoir for the virus. Once WNV reaches a high enough level in the bird population, the virus can eventually be spread to humans when bitten by an infected mosquito.

## Who is at risk of getting West Nile virus?

Anyone can get WNV if bitten by an infected mosquito. Most mosquitoes are not infected, so the odds of contracting the virus are relatively low, although this risk increases as the percentage of infected mosquitoes rises.

## What happens if you're bitten by an infected mosquito?

- ❖ Most people - approximately 80 percent - will have no symptoms or be aware that they have been infected by the virus.
- ❖ About 20 percent will have symptoms similar to a bad case of the flu.
- ❖ About 1 in 150 people will develop a serious form of the disease that can result in permanent disability or even death.

People who are over the age of 50 or those with an underlying condition are more likely to experience serious complications. Although the odds are low of contracting the severe form of WNV, the consequences are serious enough to warrant community action to reduce the risk.

## Actions We Can All Take to Decrease the Risk

The city's mosquito management program was developed specifically to reduce the number of *Culex* mosquitoes to decrease the risk of WNV transmission, but it's important for the whole community to work together to reduce the number of *Culex* mosquitoes. All *Culex* mosquitoes lay their eggs on standing water and even tiny amounts of water can breed mosquitoes. If water persists for several days, mosquitoes can lay their eggs and complete the life cycle to adult very rapidly. The warmer the temperature, the faster mosquitoes can develop, and under the right conditions, mosquitoes can emerge as adults in less than a week. Learn what you can do to reduce the risk of WNV for you and your family.



For more information, visit  
[BoulderColorado.gov/services/ecological-mosquito-management](https://BoulderColorado.gov/services/ecological-mosquito-management)  
or call 303-441-1901

## What the city is doing

The most effective way to decrease the *Culex* mosquito population is to **reduce the breeding habitat** or areas with standing water where mosquitoes lay eggs. The city maps all potential mosquito breeding sites on public lands. During mosquito season from May through September, these sites are monitored weekly and treated with *Bacillus thuringiensis israelensis* or *Bti*. This soil bacterium targets mosquitoes and other aquatic flies to effectively kill the larvae, while they are concentrated in specific locations and before they emerge as biting adults.

The city is making improvements to the irrigation systems of agricultural systems to enable water to drain more quickly.

The city is also restoring native vegetation in wetland areas, enhancing biodiversity and mosquito predators. Restoration to healthier and more diverse wetlands reduces the number of mosquitoes and reduces the risk of mosquito-borne disease.

A grid of adult mosquito traps is maintained throughout the city to assess the number of mosquitoes and mosquito samples are tested for WNV to **estimate the risk to people**.

City staff from multiple departments, experts from the city's mosquito contractor, and Boulder County Public Health officials work together to provide the best program possible to prevent WNV and are prepared to take quick action if risk becomes elevated.

## What You Can Do

*Culex* mosquitoes can breed readily in the environments found in urban properties. The role of the public is crucial for reducing the risk of WNV.

### Mosquito-Proof Your Property

**Reduce standing water** to keep mosquitoes from breeding on your property. Any item or depression in your yard that can hold a small quantity of water longer than a few days can breed mosquitoes.

**Inspect your property and empty water** from lawn ornaments, plant pots, toys, garbage cans and lids, recycle containers, bottles, wheelbarrows, birdbaths, pool and hot tub covers, etc. Keep gutters clear and flowing and avoid over-watering your lawn. Keep mosquitoes from entering your home by keeping your **screens tight-fitting and free from holes**.

If an area collects water and can't be drained, use mosquito dunks or bits (*Bti*) to kill mosquito larvae.

In outdoor areas like patios, decks or backyards, use a fan for extra protection against mosquitoes. Mosquitoes cannot navigate the fast-moving air and it also disrupts their ability to locate you.

### Protect Yourself from Mosquito Bites

**The only way to ensure that you will not get WNV is to prevent mosquito bites.** Avoid being outdoors during peak *Culex* activity from **dusk until dawn**. If you're outside during this time, keep your skin from being exposed by dressing in **long sleeves and long pants**.

**Always wear an insect repellent** when outdoors during peak mosquito hours. DEET, picaridin or oil of lemon eucalyptus can provide several hours of protection, depending on the concentration. Always follow label directions for all repellents.



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