

Fight The Bite

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- CENTER FOR -
ENVIRONMENTAL STUDIES
- AT THE -
URBAN - RURAL INTERFACE

Back ground

- *Where did West Nile virus come from?*

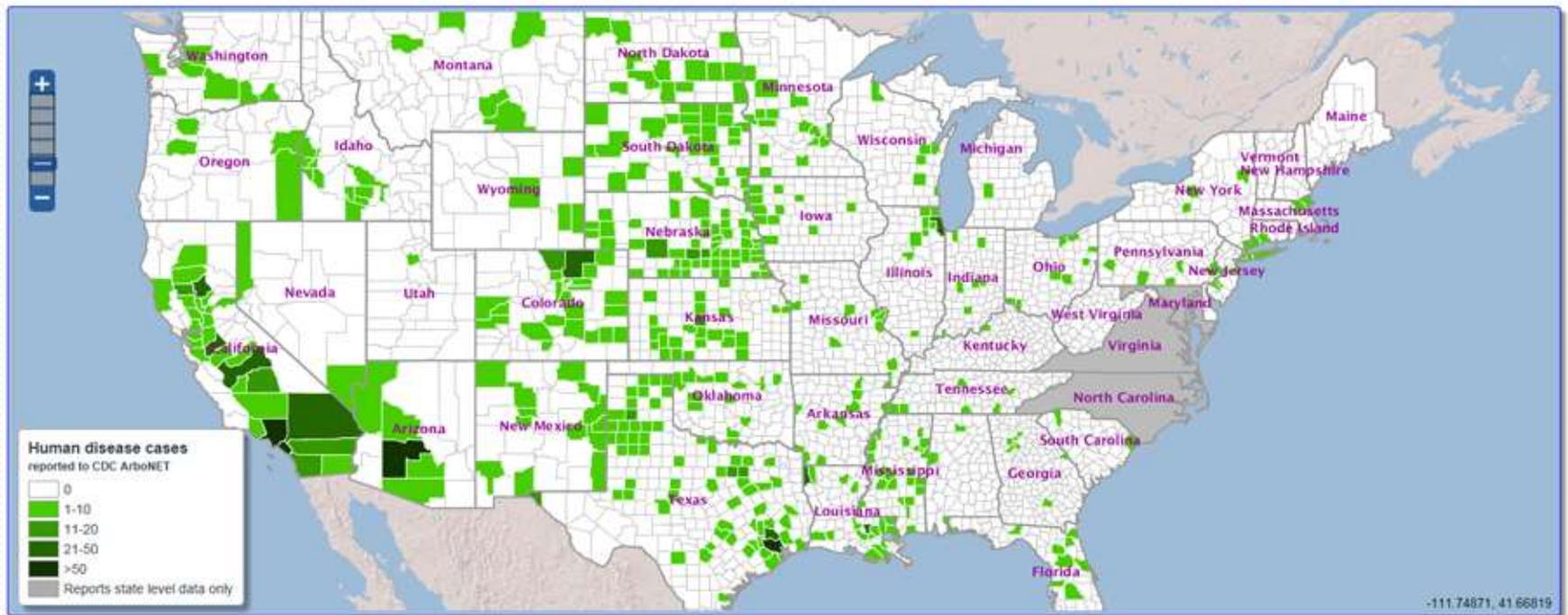
The first case of this disease was found in the West Nile area (Uganda) of Africa in 1937.

August New York City 1999

Since 1999, nearly 42,000 people have been reported with West Nile virus. Almost 1,800 have died.

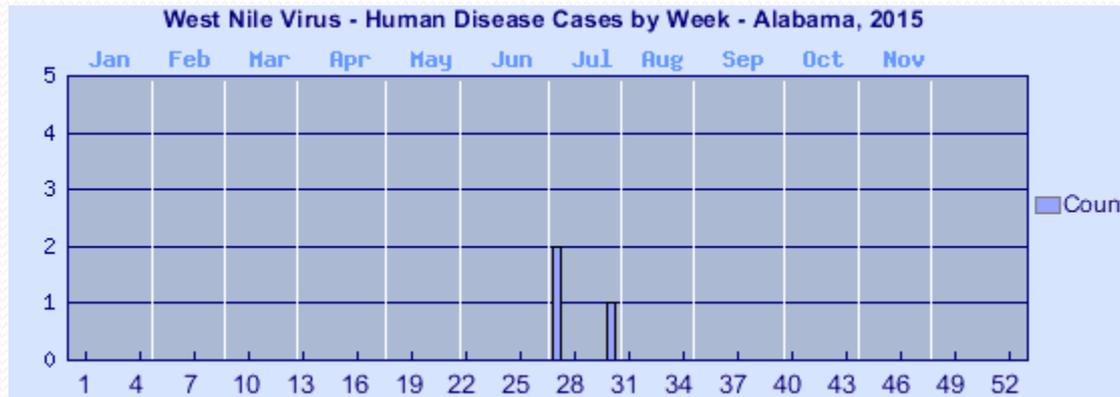
Only a Female Can Carry the Disease

West Nile Map



Alabama

Alabama cumulative human disease cases reported to CDC ArboNET for 2015: 3 disease cases



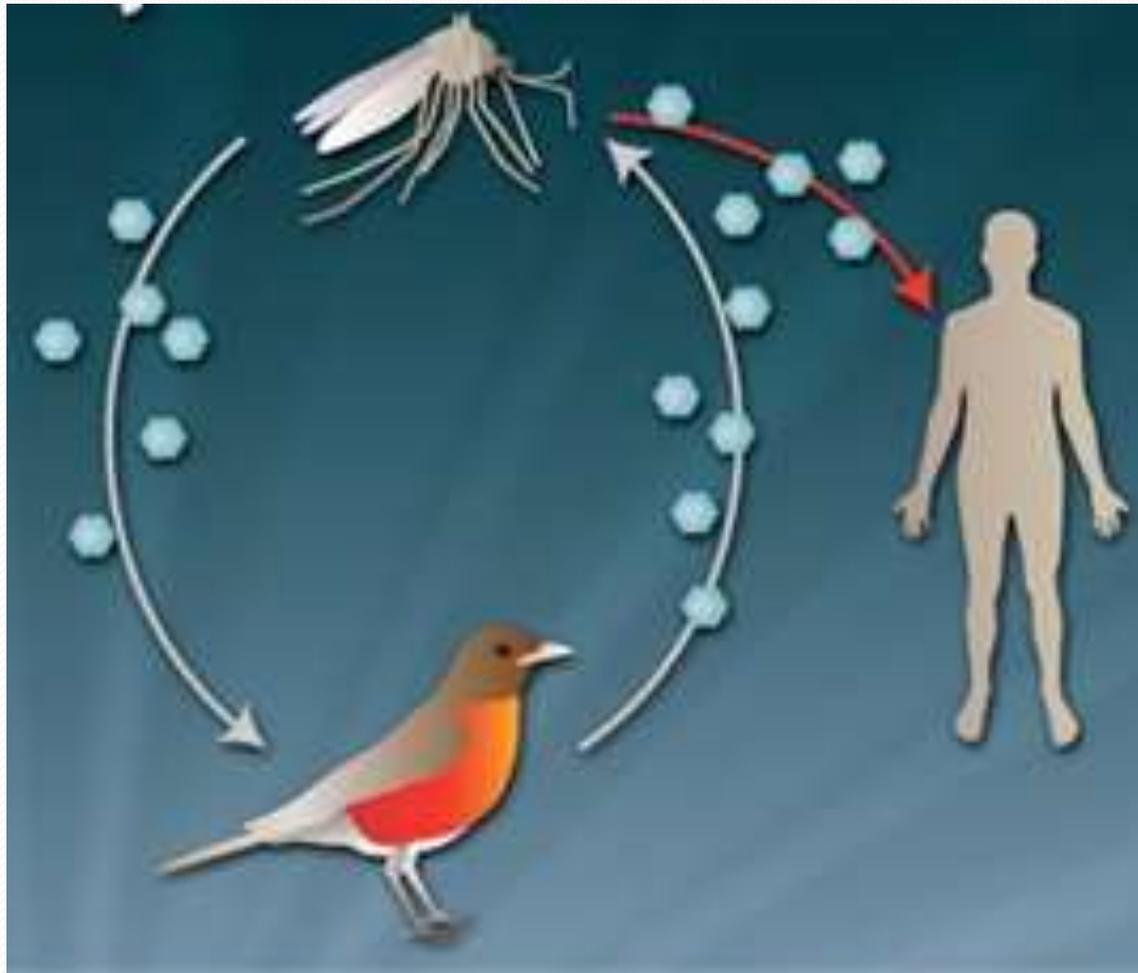
West Nile

- Just recently in 2012, 48 states have reported WNV infections in people, birds, or mosquitoes to CDC. West Nile infection is caused by a virus transmitted by mosquitoes.
- Most people infected with West Nile virus don't experience any signs or symptoms, or may experience only minor ones, such as fever and mild headache. However, some people who become infected with West Nile virus develop a life-threatening illness that includes inflammation of the brain.

West Nile

- Typically, West Nile virus spreads to humans and animals via infected mosquitoes. Mosquitoes become infected when they feed on infected birds.
- You can't get infected by touching or kissing a person with the virus.

West Nile



West Nile

- Most West Nile virus infections occur during warm weather, when mosquito populations are active. June – September
- The incubation period — the period between when you're bitten by an infected mosquito and the appearance of signs and symptoms of the illness — ranges from three to 14 days.

West Nile

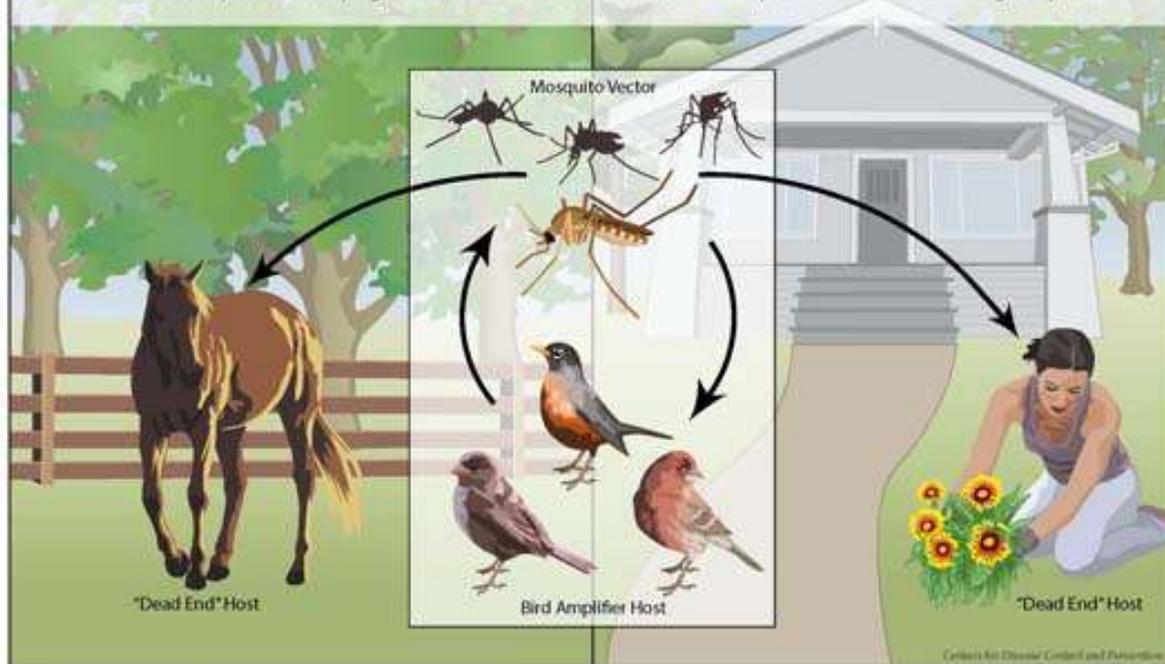
- Exposure to mosquitoes where West Nile virus exists increases your risk of getting West Nile virus infection. Protect yourself from mosquitoes by using mosquito repellent and wearing clothing that covers your skin to reduce your risk.
- Lets use common sense here, its hot already.

West Nile Transmission Cycle

West Nile Virus Transmission Cycle

In nature, West Nile virus cycles between mosquitoes (especially *Culex* species) and birds. Some infected birds, can develop high levels of the virus in their bloodstream and mosquitoes can become infected by biting these infected birds. After about a week, infected mosquitoes can pass the virus to more birds when they bite.

Mosquitoes with West Nile virus also bite and infect people, horses and other mammals. However, humans, horses and other mammals are 'dead end' hosts. This means that they do not develop high levels of virus in their bloodstream, and cannot pass the virus on to other biting mosquitoes.



West Nile

- West Nile is a virus capable of causing disease in humans. Symptoms and signs include **fever**, **headache**, body aches, skin **rash**, and swollen lymph glands. Severe symptoms may include **stiff neck**, **sleepiness**, **disorientation**, coma, tremors, convulsions, and **paralysis**. Most cases of West Nile virus are mild and go unreported.

Symptoms

- **Most cases of West Nile virus are mild and probably unrecognized. The health department says that only 20% of infected patients develop a fever or other symptoms. The timing between a mosquito bite and symptoms is generally 3 to 14 days. Symptoms, when they develop, generally last 3- 6 days.**
- **What are the symptoms? Flu-like symptoms such as headache, feeling weak and tired, fever, nausea, vomiting, eye pain, muscle aches, and rash.**

Potential Mosquito Breeding Habitats

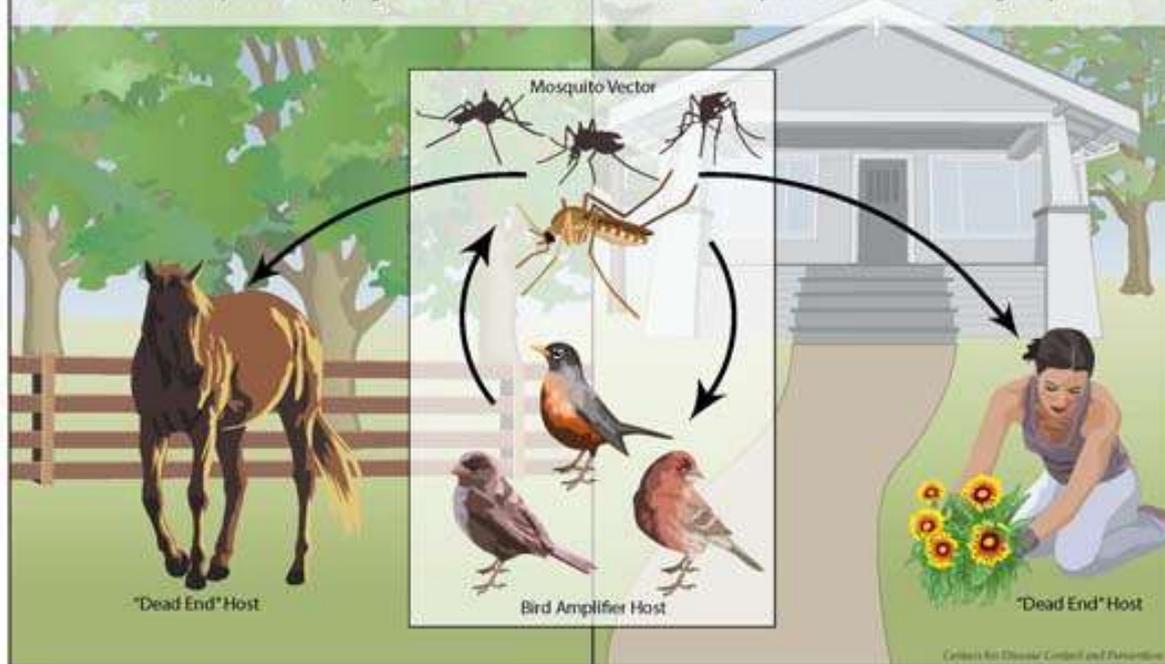


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- Don't hang out near puddles or other pools of standing water like gutters or wading pools — they are common breeding grounds for mosquitoes.
 - Get rid of mosquito breeding sites by emptying standing water found in flower pots, buckets, old tires, etc.
 - I'll tell you just like I tell the kids if you see a dead bird don't touch it

SUMMARY AND CONCLUSION

- **How do people get infected with West Nile virus?**

Most people get infected with West Nile virus by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then spread the virus to humans and other animals. In a very small number of cases, West Nile virus has been spread through blood transfusions, organ transplants, and from mother to baby during pregnancy, delivery, or breastfeeding.

Who is at risk for infection with West Nile virus?

- Anyone living in an area where West Nile virus is present in mosquitoes can get infected. West Nile virus has been detected in all lower 48 states (not in Hawaii or Alaska). Outbreaks have been occurring every summer since 1999. The risk of infection is highest for people who work outside or participate in outdoor activities because of greater exposure to mosquitoes.

Is there a vaccine available to protect people from West Nile virus?

- No. Currently there is no West Nile virus vaccine available for people. Many scientists are working on this issue, and there is hope that a vaccine will become available in the future.

How soon do people get sick after getting bitten by an infected mosquito?

- The incubation period is usually 2 to 6 days but ranges from 2 to 14 days. This period can be longer in people with certain medical conditions that affect the immune system.

Where do most cases of West Nile virus disease occur?

- West Nile virus disease cases have been reported from all 48 lower states. The only states that have not reported cases are Alaska and Hawaii. Seasonal outbreaks often occur in local areas that can vary from year to year. The weather, numbers of birds that maintain the virus, numbers of mosquitoes that spread the virus, and human behavior are all factors that can influence when and where outbreaks occur.

How can people reduce the chance of getting infected?

- Use insect repellents when you go outdoors. Wear long sleeves and pants from dusk through dawn when many mosquitoes are most active. Help reduce the number of mosquitoes around your home. Empty standing water from containers such as flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths.

NUCFAC Grant

- **West Nile Virus**

In response to the alarming increase of West Nile virus in some communities, researchers at Auburn University have been studying factors that influence outbreaks of the disease. One factor they studied was the effect of urbanization on mosquito populations. To help educate others about West Nile virus, PLT has teamed up with Auburn University to develop an activity for middle and high school students. The activity can be used in general science, biology, ecology, environmental science, and health classes. Download the activity "[West Nile Virus: Forests Help Reduce the Risk](#)".

West Nile Virus: Forests Help Reduce the Risk".

- The *Exploring Environmental Issues: Focus on Forests* module is designed to foster student understanding of- and appreciation for- the forested lands throughout North America. The module's activities provide an opportunity for hands-on study of forest resources while addressing concepts in biology, civics, ecology, economics, forest management, and other subject areas.
- <https://www.plt.org/focus-on-forests>

High School Students



Fight the Bite



Extension Program



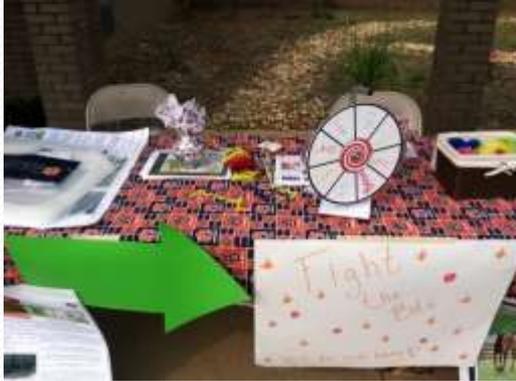
Spin the Wheel



Me



War Eagle!



Poster Contest



The West Nile Dance

- Watch me – Mosquito Mosquito

