

West Nile Virus Fact Sheet

General Information

What is West Nile virus?

West Nile virus (WNV) is a virus commonly found in Africa, West Asia, and the Middle East. It is carried by mosquitoes. West Nile can cause disease in humans, birds, horses, and some other mammals. The virus was found in the U.S. in 1999 and in Utah in August 2003.

How do people get West Nile virus?

- The most common way is through the bite of an infected mosquito. That's why [prevention](#) is key!
- Very rarely, it can be transmitted by:
 - ♦ Blood transfusion or transplant
 - ♦ Mother to baby (no reported infant deaths)
 - ♦ Lab workers through a needle stick (bird sample, not human)

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

No. Currently there is no West Nile virus vaccine available for humans. Many scientists continue to work on vaccine development. It is hopeful that a vaccine will become available in the next few years.

Who gets West Nile virus?

Anyone who is bitten by an infected mosquito can get the disease. Persons over the age of 50 or those with poor immune systems are more likely to develop a serious illness if they are infected.

How does the disease spread?

Wild birds can carry West Nile virus, and the virus is spread to birds by mosquitoes. Infected mosquitoes can spread West Nile virus to humans or other animals through biting. Not all mosquitoes carry West Nile virus.

Can you get West Nile virus from another person or animal?

No. There is no proof that West Nile virus can be spread between humans or from animals. West Nile virus is spread from infected mosquitoes.

I like to do outdoor activities. Am I at greater risk for West Nile virus?

Outdoor activities are an important part of a healthy lifestyle. Just because West Nile virus is in Utah does not mean that people should stay indoors! You can continue to enjoy the outdoors and easily protect yourself by using mosquito repellent with DEET.

How can I tell if I was bitten by a mosquito carrying West Nile virus?

You can't tell when you are bitten by a mosquito that is carrying West Nile virus. Mosquitoes carrying West Nile virus do not look or act differently than any other mosquito. The bite from a mosquito carrying West Nile virus does not look different than any other mosquito bite.

I have some really large mosquitoes at my house. Do they carry West Nile virus?

There are some insects that look just like mosquitoes, but are much larger. They are not mosquitoes and do not carry West Nile virus.

For more information about West Nile virus, visit the [Centers for Disease Control and Prevention](#).

Horses, Dogs, and Cats

Can West Nile virus cause illness in horses?

Yes. The West Nile virus can cause serious illness or death in horses. It is important to fully vaccinate all horses against West Nile virus. For more information, talk to your veterinarian or call the Utah Department of Agriculture and Food at 801-538-7161.

Can West Nile virus cause illness in dogs or cats?

Dogs and cats can become infected, but they rarely show any symptoms or unusual behavior.

Is there a vaccine for cats or dogs?

No.

Can my I get West Nile virus from my horse, dog, or cat?

There is no evidence that horses, dogs, or cats spread West Nile virus to humans.

Should a dog or cat infected with West Nile virus be killed?

No. There is no reason to kill an animal just because it has been infected with West Nile virus. Full recovery from the infection is likely. Talk to your veterinarian for more information.

Can I use insect repellent on my pets?

DEET-based repellents, which are recommended for humans, are not approved for use on pets (largely because animals tend to lick their fur.) Talk with your veterinarian for advice about the right product to use on your pet.

Human Prevention and DEET Information

Protect from dusk to dawn

That is when mosquitoes that carry the virus are most active. Protect yourself and your family during these times to prevent mosquito bites.

Protect yourself from mosquitoes

Use mosquito repellents that contain DEET (N, N-diethyl-m-toluamide) when outdoors from dusk to dawn. Follow the label instructions carefully. For adults and children over two months of age, use repellents containing up to 30% DEET. Concentrations higher than 50% do not provide additional protection. Do not use DEET on children's hands or feet.

Use DEET when outdoors – even sitting on your porch in the evening or taking a morning walk around the block.

Take cover

For extra protection, wear long-sleeved shirts and long pants while outdoors. Use mosquito netting when sleeping outdoors or in an unscreened structure. Protect small babies any time they are outdoors.

Reduce mosquitoes around your house. Control mosquitoes – get rid of all standing water.

- Turn over or remove containers in your yard where water collects, such as old tires, potted plant trays, buckets, toys, etc.
- Clean out birdbaths and wading pools at least once a week.
- Remove standing water on tarps or flat roofs.
- Clean clogged rain gutters and downspouts.
- Clean and stock garden ponds with mosquito-eating fish or mosquito dunks.
- Recycle old bottles, buckets, and cans.
- Repair leaky faucets and sprinklers.
- Keep swimming pools clean or drain them.
- Make sure screen doors and window screens are in good condition.
- Keep weeds and tall grass cut short. Adult mosquitoes look for these shady places to rest during the hot daylight hours.
- Keep window screens on campers, tents, and boats "bug-tight."
- Keep campsites neat. Get rid of mosquito breeding sites. Electric "bug zappers" do not help since they usually attract more mosquitoes than they kill.

If you can't get rid of the water (ornamental ponds, stock tanks, etc.):

- Use "mosquito dunks." These are small round disks containing *Bacillus thurengensis* that prevent mosquito larvae from hatching. They are available in many garden stores and supply catalogs.
- Use mosquito fish. These are fish known as *Gambusia affinis*, and are available from mosquito abatement districts.

Why should I use a mosquito repellent that contains DEET?

DEET is the most effective insect repellent available. The more DEET an insect repellent contains, the longer it will protect you. A higher percentage of DEET does not mean it will protect you better, just that it will last longer. For example, a product containing approximately 10% DEET will last about two hours, and 24% DEET will last about five hours. However, DEET concentrations higher than 50% do not increase the length of protection.

Is DEET safe?

Yes, products containing DEET are safe when used according to the directions. Always follow these steps:

- Use enough repellent to cover exposed skin or clothing. Don't apply repellent to skin that is under clothing. Heavy application is not necessary for protection.
- Do not apply repellent to cuts, wounds, or irritated skin.
- After returning indoors, wash treated skin with soap and water.
- Do not spray aerosol or pump products in enclosed areas.
- Do not apply aerosol or pump products directly to your face.
- Spray your hands and then rub them carefully over the face, avoiding eyes and mouth.

Should pregnant or nursing women use DEET?

Women who are pregnant or nursing can use DEET. Be sure to follow the directions carefully.

Is there a vaccine for West Nile virus?

There is no vaccine for West Nile virus at this time for humans, however there is a vaccine for horses.

For more scientific information about DEET, visit the [National Pesticide Information Center](#).

Dead Bird Information

What should you do if you find a dead or ill bird?

- What kind of bird is it?
Only some kinds of birds are appropriate for testing for West Nile Virus. These birds are ravens, crows, jays, owls, hawks, falcons, and eagles. Visit the [Division of Wildlife Resources](#) to learn more about identifying birds. If you see a dead bird that is not one of the types described, carefully throw the bird in the trash. (Read “How do I dispose of the dead bird?” below for instructions on how to properly dispose of a dead bird.)
- Did lots of birds die at one time?
West Nile virus will not kill a large group of birds in the same area at the same time. If you see a lot of dead birds in your backyard or in one area, they were probably poisoned.
- How long has the bird been dead?
Only birds that have recently died can be tested for West Nile Virus. The feathers should be shiny, and there should be no maggots or other signs of rot. If the bird hasn't recently-died, then carefully throw the bird in the trash. (Read “How do I dispose of the dead bird?” below for instructions on how to properly dispose of a dead bird.)
- How do you report the dead bird?
At this time, the State of Utah is not testing dead birds for West Nile virus. However, the Salt Lake Valley Health Department is conducting a special study on dead birds that are found within Salt Lake County. If you live in Salt Lake County and have a dead bird that fits testing criteria, call the Salt Lake Valley Health Department at 801-534-4600.
- What happens after I report the dead bird?
Collect the dead bird, but do not place it in the garbage can. Instead, place it in a cool, shaded area. If possible, someone will come within 24 hours and test the bird for West Nile virus. If no one comes within 24 hours, discard the bird in an OUTSIDE garbage container.

How do I dispose of the dead bird?

- Avoid touching the dead bird with your bare hands.
- Use rubber gloves or put a double plastic bag over your hand.
- Invert the bag over your hand, grab the bird, wrap it up, and tie off or seal the bag.
- Throw the double bag and dead bird into an OUTSIDE garbage container.
- Wash your hands thoroughly with soap and water.
- You cannot get West Nile virus from the dead bird.

Bird feeder cleaning instructions

For routine cleaning: Clean feeders once a week using a bleach solution - use one part bleach to nine parts water. Rinse feeder thoroughly with water after cleaning, and allow it to dry completely before refilling it with fresh seed. Remove waste grains from below feeders.

If you birds have died near your feeder

Use a stronger bleach solution to clean your feeder - one part bleach to three parts water. Rinse feeder thoroughly with water after cleaning, and allow it to dry completely before refilling it with fresh seed. Also, remove waste grains from below feeders and empty water for 7-10 days after an incident where birds have died near your feeder.

Human Symptoms and Treatment

What are the symptoms of West Nile virus?

- Most people will not even know they are infected.
- About 20% of infected people develop flu-like symptoms. This is called West Nile fever. These people may have a fever, body aches, and possibly a rash.
- Of those that become infected, 1 person in 150 will develop a more severe form of the disease.
- Symptoms may include have a stiff neck, and muscle weakness, and they may become confused or disoriented. Some people may have seizures, go into a coma, and, in rare occasions, may die. People over 50 years of age are at highest risk of getting the severe infection.

How soon do symptoms appear?

Symptoms can appear between 3 and 15 days after a mosquito bite from an infected mosquito.

How long do symptoms last?

Symptoms of West Nile fever will generally last a few days, although even some healthy people report being sick for several weeks. Symptoms of severe disease (encephalitis or meningitis) may last several weeks, and some symptoms may become permanent.

How do I know if I have West Nile virus?

Other illnesses can cause symptoms like those described for West Nile virus. The only way to know if you have West Nile virus is to see your healthcare provider. Your healthcare provider can run laboratory tests to find out if you have West Nile virus. If you are concerned about your health or about the health of someone in your family, please contact your healthcare provider.

What is the treatment for West Nile virus?

There is no specific treatment for disease caused by West Nile virus. Antibiotics do not work. There is no vaccine for humans. Prevention is your best defense.

If bitten by a mosquito, should I be tested for West Nile virus?

No. People rarely become sick from a mosquito bite. However, people with a high fever, severe headache, and muscle weakness or confusion should see a doctor immediately. Even in areas where mosquitoes carry the virus, very few mosquitoes are infected. The chance that one mosquito bite will be from an infected mosquito is very small.

If I have West Nile fever, can it turn into West Nile Encephalitis?

Usually, no. West Nile fever generally goes away after several days. Some people may develop a brief, West Nile fever-like illness (early symptoms) before they develop more severe disease, although it is not known how often this occurs.

Virus Spread to Humans

How do people get infected with West Nile virus?

The main way that humans become infected with West Nile virus is through the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Humans do not become infected through direct contact with other humans, horses, birds, or other animals.

Can West Nile virus be spread through blood transfusions?

Yes, but it occurs rarely. Blood banks screen blood to make sure that it does not contain the West Nile virus.

I am pregnant. If I get West Nile virus, is my baby at risk?

During 2002, one case was documented in the United States where a mother passed West Nile virus to her baby. Experts don't yet know how much risk there is to an unborn baby. Pregnant women should try to avoid infection by wearing protective clothing and using repellents containing DEET. Pregnant women who become sick with a high fever and stiff neck should see their healthcare provider as soon as possible.

Are hunters who field dress wild game birds at risk for West Nile virus?

There is no evidence that West Nile virus can be spread directly from birds or mammals to humans through direct blood contact. However, hunters are always urged to take proper precautions and wear rubber gloves when field dressing game.

Can a person get West Nile virus by eating infected game birds?

Proper cooking kills the virus. There is most likely no danger associated with eating well-cooked wild game that might be infected.

West Nile Virus Human Cases 2003 – 2011										
2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	Average per year
1	11	54	174	70	27	2	2	3	344	38.2

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