
West Nile Virus

What You Need to Know



What is West Nile Virus (WNV)?

West Nile Virus (WNV) is a potentially serious illness. Experts believe it is established as a seasonal epidemic in North America that flares up in the summer and continues into the fall. It can infect humans, birds, horses and some other mammals. In a small number of people infected by the virus, the disease can be serious, even fatal.

How is WNV spread?

- WNV is most often spread to humans by the bite of an infected mosquito that gets infected by biting a bird that carries the virus. Horses and other mammals bitten by mosquitoes that carry the virus can also become infected. Whenever mosquitoes are active, there is a risk of getting WNV. The risk is highest from late July through September.
- In a very small number of cases, WNV has been spread through blood transfusions, organ transplants, breastfeeding and during pregnancy from mother to baby.
- WNV is not spread through casual contact such as touching or kissing a person with the virus.

What are the symptoms of West Nile Virus?

If symptoms develop, they usually appear 3 to 14 days after the bite of an infected mosquito.

- **Serious Symptoms in a Few People.** About one in 150 people infected with WNV will develop severe illness. Symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent.
- **Milder Symptoms in Some People.** Up to 20% of the people who become infected display symptoms such as fever, headache, body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last for as short as a few days; though, even healthy people have been sick for several weeks.
- **No Symptoms in Most People.** Most people (80%) infected with WNV do not have any symptoms.

What is the treatment for WNV?

There is no treatment for WNV infection. Illness may last weeks to months, even in healthy persons. In more severe cases people may need hospital care for supportive treatment such as intravenous fluids, help with breathing, or nursing care.

What should I do if I think I have WNV?

Milder WNV illness usually improves without medical attention. A person may choose to see their doctor. Seek medical attention immediately if symptoms of severe WNV illness develop, such as unusually severe headaches or confusion. Severe WNV illness usually requires hospitalization. Pregnant women and nursing mothers who develop symptoms that could be WNV are encouraged to see their doctor.

What is the risk of getting sick from WNV?

- **People over 50 years of age at higher risk of severe illness.** People over the age of 50 are more likely to develop serious symptoms of WNV if they do get sick and need to take special care to avoid mosquito bites.
- **Being outside means you're at risk.** Avoid mosquito bites when outside working, playing or relaxing.
- **Risk of infection through medical procedures is very low.** All donated blood is checked for WNV before being used. The risk of getting WNV through blood transfusions and organ transplants is very small, and should not prevent people from having surgery. If you have concerns, talk with your doctor.
- **Pregnancy and nursing do not increase the risk of becoming infected with WNV.** The risk that WNV may pass to a fetus or an infant through breastmilk is still being evaluated. Talk with your doctor if you have concerns.

How can West Nile Virus be prevented?

The best way to avoid WNV infection is to prevent mosquito bites:

- Use insect repellent. The Centers for Disease Control and Prevention (CDC) recommends the use of insect repellents containing active ingredients registered with the U.S. Environmental Protection Agency (EPA). Always follow manufacturer's directions carefully.
- Be careful using repellent on the hands of children because repellents may irritate the eyes and mouth.
- Wear protective clothing such as long sleeved shirts and pants.
- Limit outdoor activity from dusk to dawn when mosquitoes are most active.
- Avoid areas where mosquitoes may be present (i.e. shaded and wooded areas).
- Maintain window and door screens to keep mosquitoes out of buildings.
- Get rid of mosquito breeding sites by emptying standing water that collects in birdbaths, boats, buckets, tires, unused pools, roof gutters and other containers.



NURSE ON CALL PUBLIC HEALTH INFORMATION HOTLINE
800.848.5533 NOC@OAKGOV.COM
OAKGOV.COM/HEALTH



@PUBLICHEALTHOC

The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.

Zika Virus



What You Need to Know

What is Zika virus (Zika)?

Zika is a disease caused by the Zika virus that is spread to people mainly from the bite of an infected *Aedes* species mosquito. About one in five people infected with Zika will get sick. The illness is usually mild with symptoms lasting for several days to one week. Most people will not realize they have been infected.

What are the symptoms of Zika virus?

The most common symptoms of Zika virus are fever, rash, joint pain, or conjunctivitis (red eyes). Symptoms typically begin two to seven days after being bitten by an infected mosquito.

How is Zika virus transmitted?

Zika is mainly transmitted through the bite of an infected *Aedes* mosquito. A mosquito becomes infected from biting a person already infected with the disease. Infected mosquitos can then spread Zika to other people through bites. Transmission may also occur from a pregnant mother to her baby during pregnancy or around the time of birth.

Spread of the virus through blood transfusion and sexual contact has been reported. Centers for Disease Control and Prevention (CDC) recommends that men who have traveled to an area of active Zika virus transmission and who have a pregnant partner not engage in sexual activity without taking appropriate precautions such as using condoms for the duration of the pregnancy. For more information about how Zika is transmitted, click here (<http://www.cdc.gov/zika/transmission/index.html>).

How can Zika virus be prevented?

There is no vaccine to prevent Zika. The best way to prevent diseases spread by mosquitoes is to avoid being bitten. The following can help protect you and your family from mosquito bites:

- Use Environmental Protection Agency (EPA)-registered insect repellent. All EPA-registered insect repellents are evaluated for safety and effectiveness.
 - Always follow the product label instructions.
 - Do not use insect repellent on babies younger than 2 months of age.
 - Do not apply insect repellent on a child's hands, eyes, mouth, cut or irritated skin.
 - Adults: spray insect repellent on your hands and then apply to a child's face.
- Wear protective clothing such as long-sleeved shirts and pants.
- Avoid outdoor activities during daylight for about two hours after sunrise and several hours before sunset. Protect yourself from mosquito bites at night in well-lit areas.
- Avoid areas where mosquitoes may be present, including indoor areas.
- Maintain window and door screens to keep mosquitoes out of buildings. Do not prop open doors.
- Get rid of mosquito breeding sites by removing standing water in and around your home:
 - Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, roof gutters, or trash containers.

How is Zika virus diagnosed?

If you have recently traveled to areas with local Zika transmission and you develop symptoms (fever, rash, joint pain, red eyes), consult a healthcare provider immediately. Currently, Zika testing is coordinated with the CDC and your healthcare provider.

What is the treatment for Zika virus?

There is no vaccine or specific medicine to treat Zika virus infections. Instead, you can treat the symptoms by:

- Getting plenty of rest.
- Drinking fluids to prevent dehydration.
- Taking medications such as acetaminophen to reduce fever and pain.
- Talking to your healthcare provider before taking additional medication if you are taking medicine for another medical condition.
- Do not take aspirin or other non-steroidal anti-inflammatory drugs without consulting a healthcare provider.

Who is at risk of Zika virus infection?

Anyone without prior exposure to the virus and who lives in or travels to an area where local transmission has been reported may become infected. For a complete list of countries and territories with Zika virus activity, click here (<http://www.cdc.gov/zika/geo/index.html>).

How does Zika virus infection affect pregnant women and unborn babies?

Information about the link between Zika and poor birth outcomes is evolving. Reports of a serious birth defect of the brain called microcephaly (a condition in which a baby's head is smaller than expected when compared to babies of the same sex and age) and other poor pregnancy outcomes in babies of mothers who were infected with Zika virus while pregnant have occurred. Until more information is known, CDC recommends the following special **travel precautions**:

- Women who are pregnant (in any trimester):
 - Consider postponing travel to any area where Zika virus transmission is ongoing.
 - If you must travel to one of these areas, talk to a health care provider first and strictly follow steps to avoid mosquito bites during your trip.
- Before traveling, women who are trying to become pregnant or thinking about becoming pregnant should talk to a healthcare provider about the risks of Zika virus infection.

For up-to-date information regarding CDC's Zika virus travel restrictions, click here (<http://wwwnc.cdc.gov/travel/page/zika-travel-information>), or contact Oakland County Health Division's Nurse on Call at 800-848-5533 or by email at noc@oakgov.com. For up-to-date information about pregnancy and Zika virus, click here (<http://www.cdc.gov/zika/pregnancy/index.html>).



NURSE ON CALL PUBLIC HEALTH INFORMATION HOTLINE
800.848.5533 NOC@OAKGOV.COM
OAKGOV.COM/HEALTH



@PUBLICHEALTHOC

The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.

KNOW THE BUZZ

The pictures below are examples of where mosquitoes can breed. Be sure to check for water at least once a week. If water is found, dump it out!

Wheelbarrows



Trash Cans



Bird Baths



Rain
Barrels

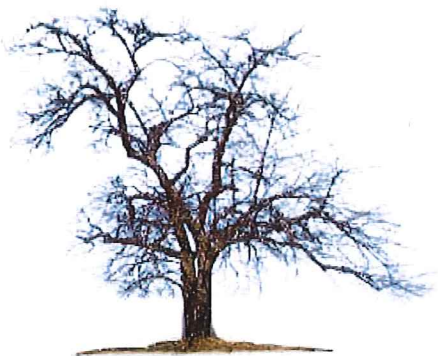
Toys



Pet Water Dishes



Tire Swings



Tree Holes

Empty Cans



For more information on mosquito-borne illnesses, call 877-377-3641 or please visit www.oakgov.com/health.

KNOW THE BUZZ

ABOUT WEST NILE VIRUS



WEST NILE

There is no vaccine for West Nile Encephalitis. Personal protection is the best way to prevent mosquito-borne disease.

HOW TO REDUCE THE RISK OF GETTING WEST NILE VIRUS

- Use insect repellents. The Centers for Disease Control and Prevention (CDC) recommends the use of insect repellents containing active ingredients registered with the U.S. Environmental Protection Agency (EPA). Products that are registered with the EPA that have shown a high degree of effectiveness contain DEET, Picaridin, Oil of Lemon Eucalyptus or IR3535. Always follow manufacturer's directions carefully.
- Be careful using repellent on the hands of children because repellents may irritate the eyes and mouth.
- Wear long-sleeved shirts and long pants outdoors.
- Limit outdoor activity from dusk to dawn and avoid areas where mosquitoes may be present (i.e. shaded and wooded areas).
- Maintain window and door screens to keep mosquitoes out of buildings.
- Empty water from mosquito breeding sites, such as flower pots, pet bowls, clogged rain gutters, swimming pool covers, discarded tires, buckets, barrels, cans, and similar items where mosquitoes can lay eggs.

For more information on West Nile Virus, call 877.377.3641 or visit oakgov.com/health

NURSE ON CALL PUBLIC HEALTH INFORMATION
800.848.5533 NOC@OAKGOV.COM
OAKGOV.COM/HEALTH



The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.

8-3-15/om/external/west_nile_folder/west_nile

DEAD BIRD DISPOSAL

Steps to Take



PLEASE REPORT

To report a single (1) dead bird, visit www.michigandnr.com/diseasedwildlifereporting/disease_obsreport.asp

To report three (3) or more dead birds call (517) 336-5030



RECOMMENDATIONS FOR DISPOSING OF DEAD BIRDS FOUND ON YOUR PROPERTY

- Avoid barehanded contact when touching a dead bird
- Use disposable gloves or an inverted double plastic bag to pick up the bird
- Dispose of the dead bird by closing tightly in a plastic bag and placing in a garbage container
- Be sure to wash your hands thoroughly

HAND WASHING STEPS

- Use soap and running water
- Rub your hands vigorously for 20 seconds
- Wash all surfaces, including: backs of hands, wrists, between fingers, under fingernails
- Rinse well
- Dry hands with paper towel
- Turn off the water using a paper towel instead of your bare hands



NURSE ON CALL PUBLIC HEALTH INFORMATION HOTLINE
800.848.5533 NOC@OAKGOV.COM
OAKGOV.COM/HEALTH



@PUBLICHEALTHOC

The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.

lona/external/completed projects/bird flu flyer

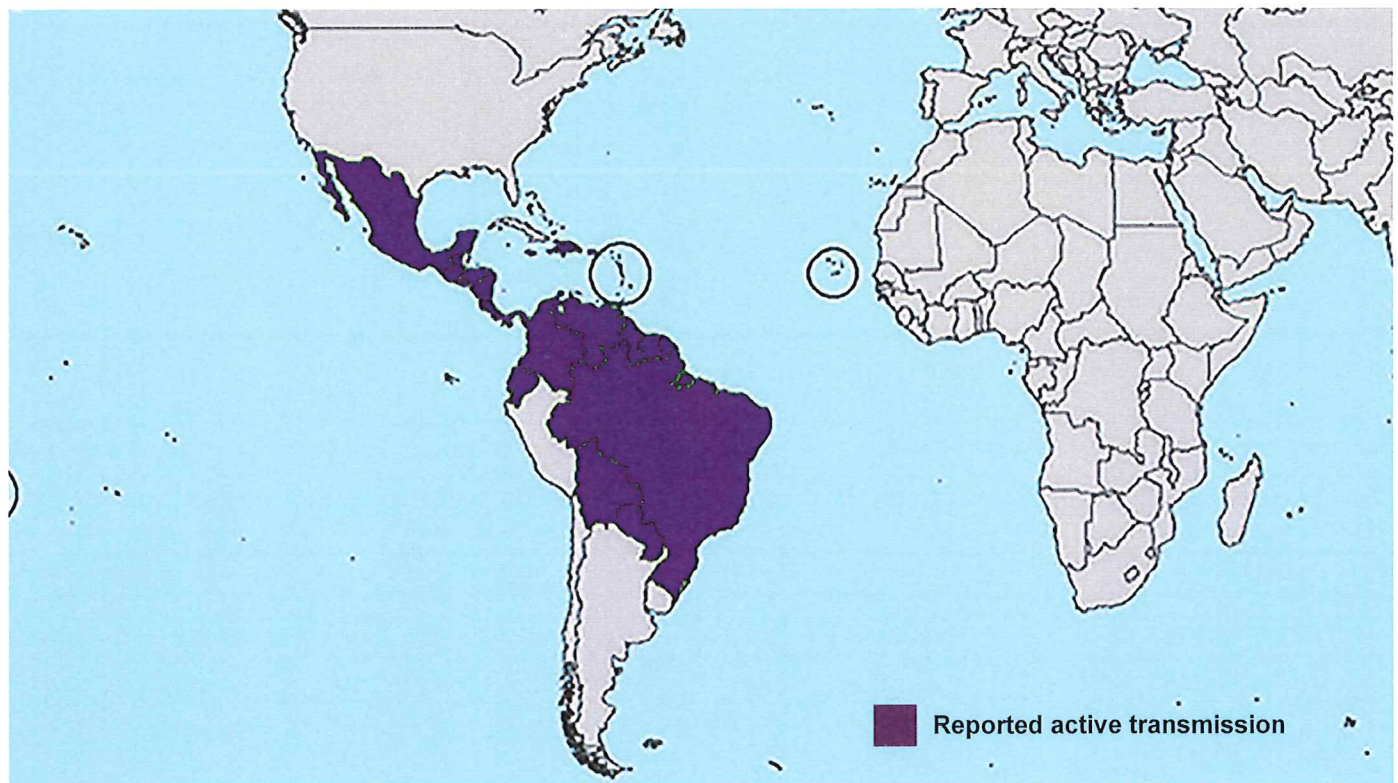
Where has Zika virus been found?

- Prior to 2015, Zika virus outbreaks have occurred in areas of Africa, Southeast Asia, and the Pacific Islands.
- In May 2015, the Pan American Health Organization (PAHO) issued an alert regarding the first confirmed Zika virus infections in Brazil.
- Currently, outbreaks are occurring in many countries.
- Zika virus will continue to spread, and it will be difficult to determine how the virus will spread over time.

Zika in the United States and its territories:

- **No locally-transmitted Zika cases have been reported in the continental United States**, but cases have been reported in returning travelers.
- Locally-transmitted Zika virus has been reported in the Commonwealth of Puerto Rico, the U.S. Virgin Islands, and American Samoa.
- With the recent outbreaks, the number of Zika cases among travelers visiting or returning to the United States will likely increase.
- Imported cases could result in local spread of the virus in some areas of the United States.

Countries and territories with active Zika virus transmission



For up-to-date areas of infection, check the CDC website at www.cdc.gov/zika/geo/



WHAT YOU NEED TO KNOW

- Zika is a disease caused by the Zika virus that is spread to people mainly from the bite of an infected *Aedes* species mosquito.
- Transmission may occur from a pregnant mother to her baby during pregnancy or around the time of birth.
- There is no vaccine or specific medicine to treat Zika virus infections.
- CDC recommends the following special travel precautions:
 - Women who are pregnant (in any trimester):
 - Consider postponing travel to any area where Zika virus transmission is ongoing.
 - If you must travel to one of these areas, talk to a healthcare provider first, and strictly follow steps to avoid mosquito bites during your trip.
 - Before traveling, women who are trying to become pregnant or thinking about becoming pregnant should talk to a healthcare provider about the risks of Zika virus infection.



**FOR UP-TO-DATE AREAS OF INFECTION, CHECK
THE CDC WEBSITE AT WWW.CDC.GOV/ZIKA/GEO/**

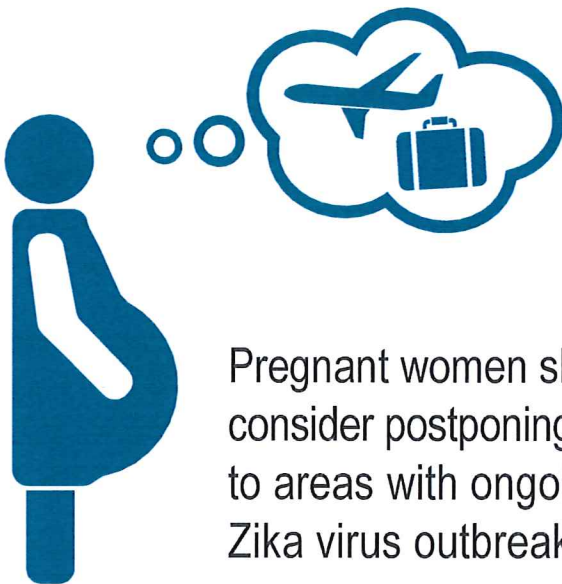
ZIKA VIRUS Prevention Measures



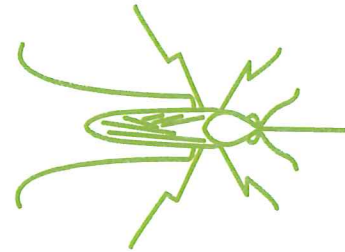
There is
NO
vaccine
at this time



If pregnant and develop
symptoms of the Zika Virus,
contact a healthcare provider
for testing

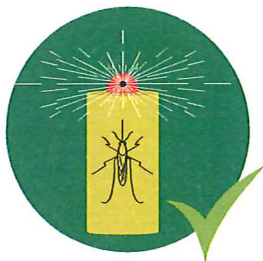


Pregnant women should
consider postponing travel
to areas with ongoing
Zika virus outbreaks



During the mosquito season,
protect those infected with Zika
virus from mosquito exposure
to prevent further transmission

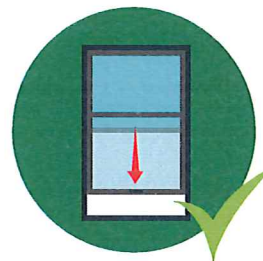
Primary method of prevention is to reduce mosquito exposure and breeding sites



Use EPA registered
repellent



Wear protective
clothing



Keep windows
closed



Remove mosquito
breeding sites