

Zika Virus

What is Zika disease?

Zika disease is an infectious disease caused by a virus in the same family as West Nile and Dengue, *Flavivirus* genus, transmitted to people through the bite of an infected insect vector, *Aedes* species mosquito.



How do people get Zika disease?

People get infected in various ways. The main way Zika disease is transmitted is from the bite of infected *Aedes* mosquitoes. Once infected by biting a person who is sick, a mosquito can then bite healthy people and spread the infection.

Mosquitoes that can transmit the virus include the Yellow fever mosquito, *Aedes aegypti*, and the Asian Tiger mosquito, *Aedes albopictus*. These mosquitoes are abundant across Louisiana, breed in small containers and are active during the daytime (especially dawn and dusk). These mosquitoes are aggressive daytime biters and prefer to lay eggs in or near standing water. These mosquitoes are the same species that spread Dengue and Chikungunya, which can cause disease similar to Zika.

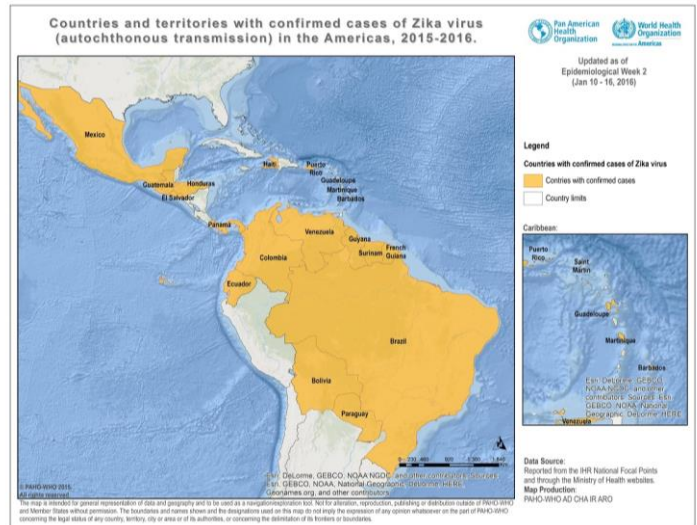
The virus is present in the blood, thus a potential risk exists for congenital transmission from a pregnant woman to her baby during pregnancy. Rarely a mother infected with Zika near the time of delivery can pass the virus on to the infant around the time of birth. Currently there are no reports of infants getting Zika through breastfeeding.

Is Zika disease contagious person to person?

Zika disease is not commonly directly transmissible from person to person. However, infants can become infected through congenital transmission (from a pregnant woman to her baby). There has been one report of possible spread of the virus through blood transfusion and one report of possible spread through sexual contact.

Where can Zika disease be found?

The virus was first isolated in 1947 from a rhesus monkey in the Zika Forest of Uganda. It has occurred since the 1950s within a narrow equatorial belt from Africa to Asia, causing about 15 documented cases until 2007. In 2007, there was an outbreak reported in Micronesia which spread to some other Pacific Islands in 2013-2014. 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 in the Americas. In December 2015, Puerto Rico reported its first locally transmitted confirmed Zika virus case.



Most cases of Zika disease in the U.S. are imported cases reported in returning travelers.

Who is at risk in Louisiana?

Currently, while *Aedes* mosquitoes are common in Louisiana, there is no documentation of local mosquitoes being infected. The chance of getting Zika disease from a mosquito in the United States is low.

Travelers from Louisiana to areas of the world where Zika virus is found (including parts of Africa, Southeast Asia, the Pacific Islands, Caribbean, Central and South America) should protect themselves from mosquito bites while traveling. For country-specific travel information and recommendations, visit www.cdc.gov/travel.

To date there have been no documented infections imported or local transmission in Louisiana residents.

What is an imported case compared to a local case?

An imported case is a person who was bitten by an infected mosquito while traveling away from home. Symptoms may begin 3-7 days after being bitten by an infected mosquito. Other mosquitoes can bite the sick person and become infected and bite more people.

Local transmission occurs when a person who has not traveled recently and gets bitten by an infected mosquito where they live, work or play.

There has been no local transmission of Zika in the U.S.

What should I do if I think I have been exposed to Zika disease?

Symptoms usually begin 2-7 days after being bitten by an infected mosquito. Not all persons bitten by an infected mosquito will develop symptoms. 80% of people will remain asymptomatic and never know they were infected. About 1 in 5 people infected with Zika will become ill.

See a doctor if you develop a fever AND any of the following symptoms after a potential exposure to Zika virus:

- Muscle or joint pain
- Headache, especially behind the eyes
- Rash
- Conjunctivitis (red eyes)
- Vomiting

What should I do if I think I have Zika disease?

You should discuss your concerns with your health care provider, who will examine you and ask you questions (for example, about your health and where you have traveled within 2 weeks before getting sick). Zika disease is diagnosed by testing blood, spinal fluid or tissue.

The symptoms of Zika are similar to those of Dengue and Chikungunya. Your healthcare provider may order tests for those diseases or other similar viruses.

You should protect yourself from mosquito bites in Louisiana during the first 7 days of illness. If a mosquito bites you, it can become infected and spread the virus to others nearby.

How is Zika disease treated?

There is only symptomatic treatment to manage the symptoms and signs of infection. Symptoms typically resolve within several days to one week. Severe disease requiring hospitalization is uncommon and death is rare.

Prevention

No drugs or vaccines for preventing infection are currently available.

The best prevention strategy is to protect yourself from mosquito bites

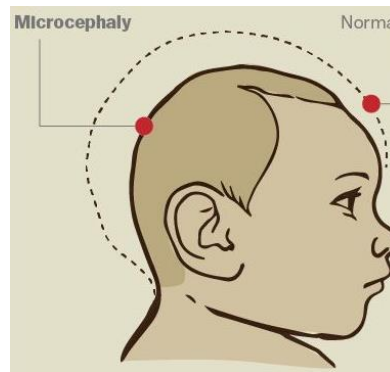
- Wear long-sleeved shirts and long pants or permethrin-treated clothing
- Use door and window screens in good repair to keep mosquitoes outside
- Empty standing water and scrub, turn over, cover or throw out items that can hold water around your home (including tires, buckets, planters, toys, trash, and gutters)
- Use insect repellent (containing DEET, picaridin, IR3535 and some oil of lemon eucalyptus and para-menthane-diol products). [More information about insect repellents can be found on the CDC West Nile virus website, "Insect Repellent Use & Safety"](#).

What is the risk to pregnant women?

Pregnant women can be infected with Zika virus in any trimester. The incidence of Zika virus infection in pregnant women is not currently known, and data on pregnant women infected with Zika virus are limited. We do not know how often Zika is transmitted from mother to baby during pregnancy or around the time of birth.

No evidence exists to suggest that pregnant women are more susceptible to Zika virus infection or experience more severe disease during pregnancy.

Zika virus infections have been confirmed in infants with microcephaly, and in the current outbreak in Brazil, a significant increase in the number of infants born with microcephaly (a birth defect where a baby's head is smaller than normal), has been reported.



Because there is neither a vaccine nor prophylactic medications available to prevent Zika virus infection, CDC recommends that all pregnant women consider postponing travel to areas where Zika virus transmission is ongoing.

Testing is not indicated for women without a travel history to an area with Zika virus transmission.

Is it safe to use an insect repellent if I am pregnant or nursing?

Using an insect repellent is safe and effective. Pregnant women and women who are breastfeeding can and should choose an EPA-registered insect repellent and use it according to the product label.

If a woman who is not pregnant is bitten by a mosquito and infected with Zika virus, will her future pregnancies be at risk?

We do not know the risk to the baby if a woman is infected with Zika virus while she is pregnant. However, Zika virus infection does not pose a risk of birth defects for future pregnancies. Zika virus usually remains in the blood of an infected person for only a few days to a week. The virus will not cause infections in a baby that is conceived after the virus is cleared from the blood.

This is an official
CDC HEALTH ADVISORY

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CDCHAN-00388

**Update: Interim Guidelines for Prevention of Sexual Transmission of
Zika Virus — United States, 2016**

Summary: The Centers for Disease Control and Prevention (CDC) recently published recommendations for protecting people against sexual transmission of Zika virus (1). As stated in that report, information about possible sexual transmission of Zika virus was based on one published report of transmission from a man to a woman, one published report in which Zika virus was detected in semen of a man with hematospermia, and one case of possible sexual transmission then under investigation in Texas. An additional case of Zika virus detected in semen in a man was reported after the CDC recommendations were published (2). As of February 23, 2016, CDC and state public health departments are investigating 14 additional reports of possible sexual transmission of the virus, including several involving pregnant women. While additional investigations are being completed, CDC is issuing this HAN Advisory as a strong reminder to state, local, and US territorial public health departments, clinicians, and the public to be aware of and adhere to current recommendations for preventing sexual transmission of Zika virus, particularly for men with pregnant partners. These recommendations may change as more information becomes available.

Background

CDC is working with state, local, and US territorial public health departments, US Government agencies, and international partners in response to outbreaks of Zika virus disease (Zika) in multiple territories and countries in the Americas. Accumulating evidence links maternal Zika virus infection with congenital microcephaly, miscarriages, and other adverse fetal outcomes (3). In addition, there are reports of a possible association with Guillain-Barré syndrome (4). No vaccine or specific antiviral drug is currently available to prevent or treat Zika.

Zika virus is spread primarily by the bite of infected *Aedes* species mosquitoes (most commonly, *Aedes aegypti*). In areas where Zika virus transmission is ongoing, people should follow precautions to prevent mosquito bites (<http://www.cdc.gov/zika/prevention/>). Sexual transmission of Zika virus also can occur and is of particular concern during pregnancy. In early February 2016, the Dallas County Department of Health and Human Services announced an occurrence of sexually transmitted Zika infection (5). On February 5, 2016, following the confirmation of this Texas sexual transmission event, CDC published interim guidelines for preventing sexual transmission of Zika virus (1).

As of February 23, 2016, CDC and state public health departments are investigating 14 additional reports of possible sexual transmission of the virus, including several events involving possible transmission to pregnant women. In two of these new suspected sexual transmission events that have been investigated to date, Zika virus infection has been confirmed in women whose only known risk factor was sexual contact with an ill male partner who had recently travelled to an area with local Zika virus transmission; testing for the male partners is pending. For four additional suspected sexual transmission events, preliminary laboratory evidence (IgM antibody test) is available for the women, but confirmatory testing is still pending. For eight suspected events, the investigation is ongoing. In all events for which information is available, travelers reported symptom onset within 2 weeks prior to their non-traveling female partner's symptom onset.

Because these reports suggest sexual transmission may be a more likely means of transmission for Zika virus than previously considered, CDC is issuing this HAN Advisory to underscore the importance of adhering to the interim guidance published on February 5 and outlined below. The recommendations, which apply to men who reside in or have traveled to areas with active Zika virus transmission (<http://wwwnc.cdc.gov/travel/notices/>) and their sex partners, will be revised as more information becomes available.

Recommendations for men and their pregnant partners

Men who reside in or have traveled to an area of active Zika virus transmission who have a pregnant partner should abstain from sexual activity or consistently and correctly use condoms during sex (i.e., vaginal intercourse, anal intercourse, or fellatio) for the duration of the pregnancy. Pregnant women should discuss their male partner's potential exposures to mosquitoes and history of Zika-like illness (<http://www.cdc.gov/zika/symptoms>) with their health care provider; providers can consult CDC's guidelines for evaluation and testing of pregnant women (6).

Recommendations for men and their nonpregnant sex partners

Men who reside in or have traveled to an area of active Zika virus transmission who are concerned about sexual transmission of Zika virus might consider abstaining from sexual activity or using condoms consistently and correctly during sex. Couples considering this personal decision should take several factors into account. Most infections are asymptomatic, and when illness does occur, it is usually mild with symptoms lasting from several days to a week; severe disease requiring hospitalization is uncommon. The risk for acquiring vector-borne Zika virus in areas of active transmission depends on the duration and extent of exposure to infected mosquitoes and the steps taken to prevent mosquito bites (<http://www.cdc.gov/zika/prevention>). After infection, Zika virus might persist in semen when it is no longer detectable in blood; studies to determine the duration of persistence in semen are not yet completed.

Accumulating evidence of sexual transmission suggests that exposure to Zika virus includes unprotected sexual contact with a symptomatic male partner who resides in or has traveled to an area of active Zika virus transmission. Zika virus testing is currently recommended to establish a diagnosis of infection in exposed persons with signs or symptoms consistent with Zika virus disease, and may be offered to asymptomatic pregnant women with possible exposure to Zika virus (6). However, interpretation of results is complex, and health care providers should contact their state, local, or territorial health department for assistance with arranging testing and interpreting results. At this time, testing of exposed, asymptomatic men for the purpose of assessing risk for sexual transmission is not recommended. Sexual transmission of Zika virus from infected women to their sex partners has not been documented, nor has transmission from persons who are asymptotically infected. Sexual transmission of many infections, including those caused by other viruses, is reduced by consistent and correct use of latex condoms.

As we learn more about the incidence and duration of seminal shedding from infected men and the utility and availability of testing in this context, recommendations to prevent sexual transmission of Zika virus will be updated.

References

1. Oster AM, Brooks JT, Stryker JE, et al. Interim Guidelines for prevention of sexual transmission of Zika virus — United States, 2016. *MMWR Morb Mortal Wkly Rep* 2016;65:120–121. <http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e1.htm>
2. Atkinson B, Hearn P, Afrough B, et al. Detection of Zika virus in semen [letter]. *Emerg Infect Dis*. 2016 May [cited February 22, 2016]. <http://dx.doi.org/10.3201/eid2205.160107>
3. Martines RB, Bhatnagar J, Keating MK, et al. Evidence of Zika virus infection in brain and placental tissues from two congenitally infected newborns and two fetal losses — Brazil, 2015. *MMWR Morb Mortal Wkly Rep*. 2016;65 (Early Release)(06):1-2. http://www.cdc.gov/mmwr/volumes/65/wr/mm6506e1.htm?s_cid=mm6506e1_e. Published February 19, 2016.
4. European Centre for Disease Prevention and Control. Rapid risk assessment: Zika virus epidemic in the Americas: potential association with microcephaly and Guillain-Barré syndrome – 10 December

2015. <http://ecdc.europa.eu/en/publications/Publications/zika-virus-americas-association-with-microcephaly-rapid-risk-assessment.pdf>. Published 2015. Accessed Feb 1, 2016.

5. Dallas County Health and Human Services. DCHHS reports first Zika virus case in Dallas County acquired through sexual transmission. February 2, 2016.
<http://www.dallascounty.org/department/hhs/press/documents/PR2-2-16DCHHSReportsFirstCaseofZikaVirusThroughSexualTransmission.pdf>
6. Oduyebo T, Petersen EE, Rasmussen SA, et al. Update: interim guidelines for health care providers caring for pregnant women and women of reproductive age with possible Zika virus exposure—United States, 2016. MMWR Morb Mortal Wkly Rep 2016;65.
http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e2.htm?s_cid=mm6505e2_e

For More Information

- General information about Zika virus and disease: <http://www.cdc.gov/zika/>
- Zika virus information for clinicians: <http://www.cdc.gov/zika/hc-providers/index.html>
- Protection against mosquitoes: <http://wwwnc.cdc.gov/travel/yellowbook/2016/the-pre-travel-consultation/protection-against-mosquitoes-ticks-other-arthropods>
- Travel notices related to Zika virus: <http://wwwnc.cdc.gov/travel/notices>
- Information about Zika virus for travelers and travel health providers: <http://wwwnc.cdc.gov/travel/yellowbook/2016/infectious-diseases-related-to-travel/zika>
- HAN Advisory: Recognizing, managing, and reporting Zika virus infections in travelers returning from Central America, South America, the Caribbean, and Mexico. January 15, 2016.
<http://emergency.cdc.gov/han/han00385.asp>
- Pan American Health Organization (PAHO): http://www.paho.org/hq/index.php?option=com_content&view=article&id=11585&Itemid=41688&lang=en

Approximate distribution of *Aedes aegypti* and *Ae. albopictus* mosquitoes in the United States:
<http://www.cdc.gov/chikungunya/resources/vector-control.html>

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##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##