

FACT SHEET

Zika Virus: Travel Precautions and Mosquito-bite Prevention

Check with a travel medicine physician or other medical professional before visiting a transmission-active region.

This WorkCare Fact Sheet describes the Zika virus, transmission, pregnancy risks and recommendations to prevent infection. It was last updated on May 17, 2016.

[Zika is a viral disease](#) transmitted to people primarily through the bite of an infected Aedes mosquito, the same species that spreads [dengue](#) and [chikungunya](#) viruses.

The virus, named after the Zika forest in Uganda where it was first discovered in 1947, is common in Africa and Asia. The number of western-hemisphere countries reporting active Zika virus transmission has steadily grown since May 2015 when the Pan American Health Organization confirmed the first Zika virus infection in Brazil.



Transmission

Aedes species mosquitoes typically lay eggs in and near standing water. They are aggressive daytime biters and tend to live near people. Aedes mosquitoes become infected with Zika when they feed on an infected person, then

spread the virus to other people when they bite them.

Zika can be transmitted from a pregnant mother to her baby; this mode of transmission is under investigation. There have not been any reports of transmission to infants through breastfeeding.

According to the Centers for Disease Control and Prevention (CDC), the Zika virus can also be spread by an infected man to his sex partner before, during and after the appearance of symptoms.

Studies show the virus remains in semen longer than it does in blood, but it is not known how much longer. It has also not been determined whether:

- infected men who never develop symptoms can have the virus in their semen or spread Zika through sex
- infected women can spread Zika to sex partners
- infected men can spread Zika to partners through oral sex

The [World Health Organization](#) has predicted the virus will spread to all countries across the Americas except Canada and Chile, where the Aedes mosquito is not found. Some experts predict Zika will likely follow the same spread pattern as dengue fever in the U.S.—with the potential for outbreaks in Florida, other Gulf Coast states and possibly Hawaii.

Zika infection is not new to the U.S. According to a Jan. 26, 2016, [Scientific American](#) article, more than two dozen cases have been confirmed in the U.S. since 2007. As of May 11, 2016, 503 travel-associated Zika cases were reported in the U.S., an increase of 468 cases

since Feb. 3. The amount of funding to be allocated for programs to help fight the anticipated spread of Zika virus in the U.S. has been the subject of national debate.

Symptoms, Diagnosis and Treatment

Until recently, Zika was not considered a major public health threat because its symptoms are relatively mild. One consequence is that there are no vaccines or medications available to prevent or treat Zika infection.

About one in five people who are bitten by a Zika-infected mosquito develop symptoms. The most common symptoms are fever, rash, conjunctivitis (pink eye), joint and muscle pain, and headache. The incubation period (prior to developing symptoms) and the illness are believed to last several days to a week.

An evaluating occupational health or personal physician may order blood tests to detect Zika and similar viruses in individuals with symptoms who are in or have recently traveled to an active-transmission region. For men, a blood test is not useful if the virus remains only in semen. In addition, diagnosis by serology can be challenging because Zika may cross-react with other viruses such as dengue, West Nile and yellow fever.

Treatment recommendations for Zika symptoms include rest, staying well-hydrated and avoiding additional mosquito bites. Medications to relieve fever and pain should only be taken under the direction of a physician. Public health officials advise against taking aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and naproxen until dengue is ruled out in order to reduce risk of internal bleeding. Zika is also suspected to be associated with a limited number of cases of [Guillain-Barré Syndrome](#), a neurological disorder.

Zika and Pregnancy

Zika infection is linked to a birth defect called [microcephaly](#), when the baby's head and brain are smaller than average, and other poor outcomes such as seizures, developmental delays, vision and feeding problems.

Microcephaly is rare, and it has other causes including infection of the fetus with rubella (German measles), fetal-alcohol poisoning, severe maternal malnutrition, diabetes and genetic abnormalities.

A widely publicized regional Zika outbreak in Brazil is connected to a significant increase in babies born with birth defects, generating an international response and calls in some western hemisphere countries for women of child-bearing age to delay pregnancy.



Recommendations for testing of pregnant women who have an illness with Zika-like symptoms during or within two weeks of travel were released by the CDC on Jan. 19, 2016. A Feb. 6 CDC update of [Interim Guidelines for Health Care Providers](#)

includes a new recommendation to offer serologic testing to pregnant women without symptoms who have traveled to affected areas two to 12 weeks after their return. The update also includes recommendations for screening, testing, and management of pregnant women, and for counseling women of reproductive age.

Travel Precautions & Prevention

The CDC has issued a [travel alert \(Level 2- Practice Enhanced Precautions\)](#) for affected areas. Prospective travelers are advised to check the CDC's online world map depicting active-transmission regions

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(www.cdc.gov/zika/geo/active-countries) and consult a medical professional with occupational and travel health expertise.



The CDC recommends special precautions for:

Women who are pregnant:

- Consider postponing travel to any area where Zika virus transmission is ongoing.
- If you must travel to one of these areas, talk to your doctor first and strictly follow [steps to prevent mosquito bites](#).
- If you have a male partner who lives in or has traveled to an area where Zika transmission is ongoing, either abstain from sex or use condoms consistently and correctly for the duration of your pregnancy.

Women who are trying to become pregnant:

- Before you or your male partner travel, talk to your doctor about your plans to become pregnant and the risk of Zika virus infection.
- You and your male partner should strictly follow mosquito-bite prevention during your trip.

All travelers are advised to take steps to prevent mosquito bites to prevent spread of the virus.

Even if they do not feel sick, travelers returning to the United States from an area with Zika should take steps to prevent mosquito bites for three weeks so they do not spread the virus to uninfected mosquitoes.

With respect to sexual transmission, if not practicing abstinence, couples are advised to correctly use a condom to prevent exposure to potentially infected semen. The following are CDC recommendations:

- Men who have been diagnosed with Zika or had symptoms of Zika should consider using condoms or not having sex for **at least 6 months** after symptoms begin. This includes men who live in and who have traveled to areas with Zika.
- Men who have traveled to an area with Zika but did not develop symptoms of Zika should consider using condoms or not having sex for **at least 8 weeks** after their return.
- Men who live in an area with Zika but have not developed symptoms should consider using condoms or not having sex **as long as Zika is active in the area**.
- Infected women should wait **at least eight weeks** after symptom onset to attempt conception; infected men should wait at least **six months** after symptom onset to attempt conception.
- Women and men with possible exposure to Zika virus but without symptoms should wait **at least eight weeks** after exposure to attempt conception. Possible exposure is defined as travel to or residence in an area of active Zika virus transmission or sex with a man who traveled to or resided in an area of active transmission.

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The following are recommendations to help prevent mosquito bites in transmission-active areas:

1. Wear clothing and headwear to cover exposed parts of the body.
2. Use EPA-registered insect repellents containing DEET, picaridin, oil of lemon eucalyptus (OLE) or IR3535—always as directed.
 - Pregnant and breastfeeding women can use all EPA-registered insect repellents, including DEET, according to the product label.
 - Most repellents, including DEET, can be used on children older than 2 months.
3. Use or wear permethrin-treated clothing and gear (such as boots, pants, socks and tents). Items may be pre-treated or treated after purchase.
4. Eating and sleeping in air-conditioned rooms with windows closed or in screened enclosures.

In Rio de Janeiro, Brazil, the city hosting the 2016 Summer Olympics, Aug. 5 to Aug. 21, and the Paralympics Games in September, visitors will be strongly encouraged to practice enhanced precautions. Public health officials recommend scheduling a medical appointment to discuss Zika precautions and other potential health risks before traveling to Brazil.

If you have questions, contact a WorkCare travel health professional.