

Zika Virus Update: Prevention and Control

This WorkCare Fact Sheet describes the Zika virus, routes of transmission, pregnancy risks and recommendations to prevent the spread of infection.

Zika is a viral disease transmitted to people primarily through the bite of an infected Aedes mosquito. The virus is named after the Zika forest in Uganda, where it was first discovered in 1947.

Exposure Risk

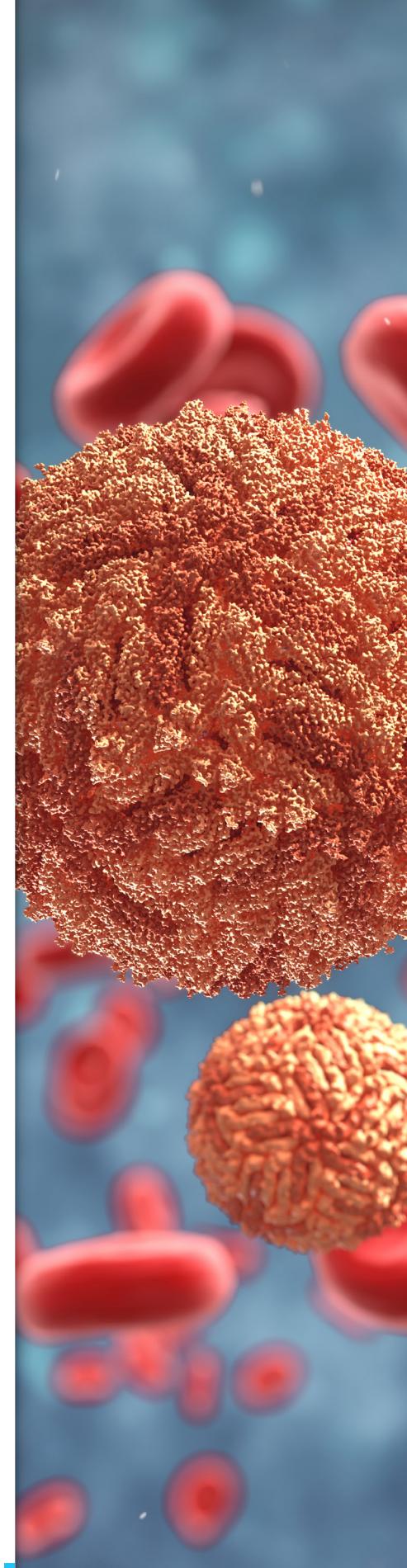
The risk of local mosquito-borne exposure to the Zika virus in the continental United States is low. In the first six months of 2018, no mosquito-borne transmissions were reported. Brownsville, Texas, and Miami-Dade County in south Florida were previously designated as Zika cautionary (yellow) areas, but those designations were later lifted.

However, there is continuing risk of exposure to infected mosquitos while traveling to affected regions or when having unprotected sex with an infected partner.

Information on Zika exposure risk in Mexico, the Caribbean, some Pacific islands and certain countries in Africa, Asia, Central America and South America are posted on the Centers for Disease Control and Prevention's (CDC) [Travelers' Health](#) webpage. Pregnant women are advised not to travel to Zika-affected regions or have unprotected sex with a partner who may be infected because the virus can be transmitted to the fetus and cause serious birth defects.

Zika became a nationally notifiable condition in 2016. The CDC and ArboNET, a surveillance system, track and report case counts. Cases affecting pregnant women are reported to the [U.S. Zika Pregnancy and Infant Registry](#), including infections acquired via travel, sexual exposure or local transmission.

Between Jan. 1, 2015, and June 6, 2018, there were 5,701 symptomatic Zika virus disease cases reported in the U.S., the majority of them attributed to international travel. Among all cases, 231 were acquired through presumed local mosquito-borne transmission and 52 through sexual transmission. From January 2015 to April 2018, 2,461 instances of pregnant women with laboratory evidence of possible infection were reported. The [CDC's pregnancy outcomes webpage](#) features information on birth defect prevalence rates.



Symptoms, Diagnosis and Treatment

Most people who become infected do not feel ill, which increases the likelihood of unknowingly spreading the virus through sexual contact. Studies are being conducted to determine how long the virus remains in semen. When symptoms occur, they typically last several days to a week. Symptoms may include mild fever, rash, joint pain and conjunctivitis (red eyes).

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

Treatment recommendations for Zika symptoms include rest and drinking fluids to stay well-hydrated. According to public health officials, acetaminophen may be taken to help relieve fever and discomfort. Aspirin, ibuprofen, naproxen or other nonsteroidal anti-inflammatory drugs should not be taken without direction from a medical professional because they can increase the risk of bleeding.

Prevention

There is no vaccine to prevent Zika virus. The primary preventive recommendation for anyone who travels to or lives in an active-transmission region is to avoid getting mosquito bites. Travelers visiting or returning to the U.S. from a Zika-active region are advised to prevent the spread the infection to sex partners by using condoms.

The following are recommendations to help prevent mosquito bites:

1. Wear light-weight clothing and headwear to cover exposed parts of the body.
2. Use Environmental Protection Agency-registered insect repellents containing DEET, picaridin, oil of lemon eucalyptus (OLE) or IR3535 on exposed skin, as directed.
3. When using insect repellent:
 - Choose a product based on anticipated exposure time. In general, the higher the percentage of active ingredient, the longer protection will last.
 - Do not spray under clothing, apply to irritated skin, cuts or abrasions, or spray directly on the face. Use hands to apply repellent on the face.
 - Wash with soap and water before eating and after coming indoors.
 - If a rash develops where repellent and/or sunscreen are applied, consult a medical professional.
 - Pregnant women and children over 2 months old can use most repellents.



4. Use or wear permethrin-treated clothing and gear such as boots, pants, socks and tents. Items may be pre-treated or treated after purchase.
5. Eat and sleep in air-conditioned rooms with the windows closed or in screened/netted enclosures. Repair screens and nets with holes or tears.
6. Empty outdoor containers of standing water where mosquitoes can breed.

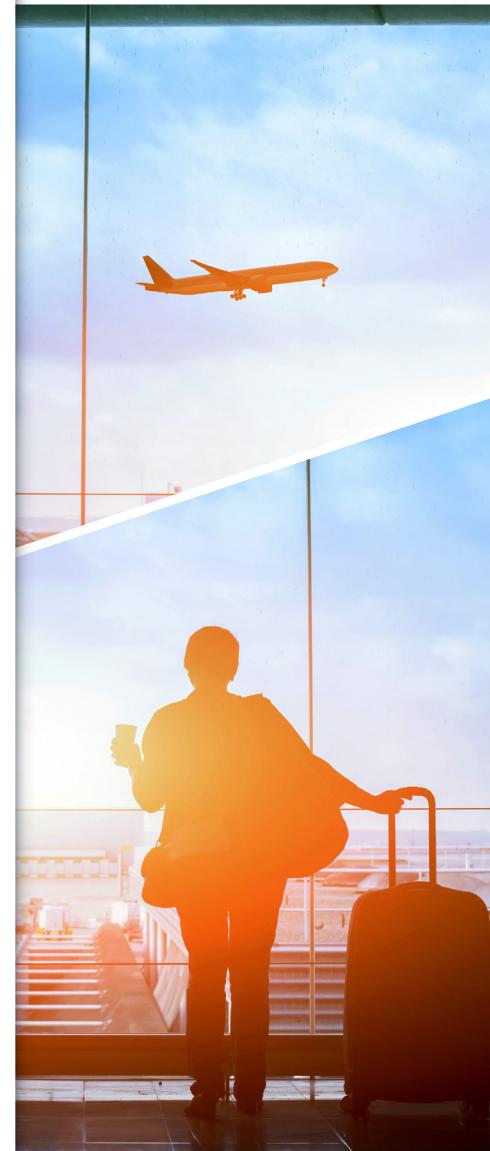
Local entities such as control districts are responsible for mosquito abatement in most communities. Anyone can take steps to help reduce mosquito breeding and bites around their home and in their neighborhood.

Occupational Regulations and Guidance

Depending on workers' exposure, job tasks and the controls necessary to protect them, employers must comply with the provisions of applicable OSHA requirements, including:

- Personal Protective Equipment (PPE) standards ([29 CFR 1910 Subpart I](#) and, for construction, [29 CFR 1926 Subpart E](#)), such as when workers need wearable mosquito netting or other PPE.
- Bloodborne Pathogens (BBP) standard ([29 CFR 1910.1030](#)), when workers have exposure to blood or other potentially infectious materials.
- Paragraph (b)(4) of the Safety Training and Education standard ([29 CFR 1926.21](#)) when construction workers are at job site areas where harmful animals are present (e.g., mosquitoes that could spread the Zika virus).

In health care and emergency response settings, standard precautions include hand hygiene, injection safety and the use of PPE to avoid direct contact with blood and other potentially infectious materials, including laboratory specimens. PPE may include gloves, gowns, masks and eye protection. If an exposure to human blood or other potentially infectious materials results in infection, employers must comply with medical evaluation and follow-up requirements in the BBP standard.



The CDC frequently updates Zika Virus information on its website. Another useful resource is [Interim Guidance for Protecting Workers from Occupational Exposure to Zika Virus](#), which was jointly issued by OSHA and the National Institute for Occupational Safety and Health (NIOSH) in 2017. Employers with employees in Zika-affected regions are advised to:

- Train employees on all modes of Zika virus transmission and prevention methods.
- Provide insect repellent and training on how to use it during outdoor work.
- Ensure that workers wear protective clothing and equipment, as conditions warrant.
- Find indoor work for outdoor employees who request it, as feasible, if they are pregnant or have a partner who is pregnant or attempting to become pregnant.
- Educate supervisors and all potentially exposed workers about Zika symptoms.
- Train workers to seek a medical evaluation if they develop symptoms.
- Ensure thorough medical evaluation and follow-up after suspected exposure.
- Consider options for granting sick leave during the infectious period.

According to the CDC, flexible work travel and leave policies help control the global spread of Zika and other infectious diseases. This may include delaying travel to Zika-affected areas, especially for those of reproductive age.

Questions?

Contact WorkCare's occupational and travel health experts.

