

Help Control Mosquitoes that Spread Dengue, Chikungunya, and Zika Viruses

B Zzzz.



Aside from being itchy and annoying, the bite of an infected female mosquito (*Aedes aegypti* or *Aedes albopictus*) can spread dengue, chikungunya, or Zika viruses. People become infected with dengue, chikungunya, or Zika after being bitten by an infected mosquito.

- Female mosquitoes lay several hundred eggs on the walls of water-filled containers. Eggs stick to containers like glue and remain attached until they are scrubbed off. When water covers the eggs, they hatch and become adults in about a week.
- Adult mosquitoes live inside and outside.
- They prefer to bite during the day.
- A few infected mosquitoes can produce large outbreaks in a community and put your family at risk of becoming sick.

Protect Yourself, Your Family, and Community from Mosquitoes

1.

Eliminate 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, or trash containers. Check inside and outside your home.
- Tightly cover water storage containers (buckets, cisterns, rain barrels) so that mosquitoes cannot get inside to lay eggs.
- For containers without lids, use wire mesh with holes smaller than an adult mosquito.

2.

If you have a septic tank, follow these steps:

- Repair cracks or gaps.
- Cover open vent or plumbing pipes. Use wire mesh with holes smaller than an adult mosquito.

3.

Keep mosquitoes out of your home:

- Use screens on windows and doors.
- Repair holes in screens.
- Use air conditioning when available.



Put plants in soil, not in water.



Drain water from pools when not in use.



Recycle used tires or keep them protected from rain.



Drain & dump any standing water.



Weekly, scrub vases & containers to remove mosquito eggs.

Zika Virus

Zika is a mosquito-borne disease characterized by acute onset of fever, rash, and joint pain. It is not a new disease, as previous outbreaks have been recorded in Africa, Southeast Asia, and the Pacific Islands. In May of 2015 an alert was issued regarding the first confirmed case of Zika virus infection in Brazil. Since then the disease has spread throughout South America, Central America, the Caribbean, and into Mexico.



These mosquitoes can be identified by the white stripes on their black bodies and legs. They are aggressive daytime biters, with peak feeding activity at dawn and dusk.

Zika virus will continue to spread, and it will be difficult to determine how the virus will spread over time. Because of this, and the occurrence of outbreaks in several countries, CDC has issued a [travel alert \(Level 2-Practice Enhanced Precautions\)](#) for people traveling to regions and certain countries where Zika virus transmission is ongoing. Visit <http://wwwnc.cdc.gov/travel/page/zika-travel-information> for the latest travel information.

Transmission – Zika is spread to people primarily through the bite of an infected *Aedes aegypti* or *Aedes albopictus* mosquito. These are the same types of mosquitoes that transmit Chikungunya and dengue virus. Both are present in the U.S., and both bite mostly during the daytime. Zika can also be transmitted from a pregnant mother to her baby during pregnancy or around the time of birth. In addition, there have been reports of Zika being spread through sexual contact as well as blood transfusion.

Signs and symptoms – Symptoms usually begin 3 – 7 days after being exposed and most commonly include fever, rash, joint pain, and conjunctivitis (red eyes). Symptoms may last for several days to a week, but the illness is usually mild. For this reason, many people may not realize they have been infected. In fact, only about 1 in 5 people who are infected ever develop symptoms.

Testing and treatment – Your doctor may order blood tests to look for signs of Zika or similar diseases such as dengue or Chikungunya. There is no vaccine or specific medicine to treat Zika, only medicines to help reduce fever and pain.

Prevention – Anyone who is living in or traveling to an area where Zika virus is found is at risk for infection, including pregnant women. The best method to prevent Zika virus infection is to avoid being bitten by mosquitoes.



- Use condoms or abstain from sex to prevent sexual transmission
- Avoid mosquito bites
 - Sleep under a mosquito net if mosquitoes can get inside the location where you are staying, or if you are sleeping outside and not able to protect yourself from bites.
 - Wear long-sleeved shirts and long pants.
 - Use insect repellents
 - Repellents containing DEET, picaridin, IR3535, and oil of lemon eucalyptus and para-menthane-diol products provide long lasting protection. If you use both sunscreen and insect repellent, apply the sunscreen first and then the repellent.
 - Treat clothing with permethrin or purchase permethrin-treated clothing.
- Persons who do become infected should isolate themselves and avoid mosquitoes during the first week of illness

Zika, Pregnancy, and Microcephaly

Pregnant women can be infected with Zika virus in any trimester. The Zika outbreak in Brazil led to reports of pregnant women giving birth to babies with birth defects and other poor pregnancy outcomes. One of the birth outcomes being most commonly reported in babies of mothers who were infected with Zika virus while pregnant is a serious birth defect called microcephaly. This is a condition where the head is smaller than normal, and a child may experience a variety of other health challenges, including physical and speech functions, seizure, hyperactivity, coordination problems and other brain/neurological disorders.

Zika Virus Disease

What are the Symptoms of Zika Virus Disease?

- Malaise or headache
- Mild Fever
- Red eyes
- Skin rashes
- Muscle and joint pain

1 in 4 people with Zika infection develops symptoms. Symptoms are usually mild, begin 2-7 days after the bite of an infected mosquito and last for up to 1 week.



To date, the CDC reported 258 cases (18 pregnant) of travel-reported Zika infection in the US States

Mosquito Bites

Zika virus is mainly transmitted by the bite of an infected *Aedes* mosquito. The mosquito becomes infected when it bites a person who is already infected with the virus

Sexual Contact

The virus can be transmitted from an infected man to his sex partner.

How Zika virus is transmitted

Mother to Child

The virus can be transmitted from a pregnant mother to her fetus, during pregnancy, or newborn, during delivery.

Blood Transfusion

There is a strong possibility that Zika virus can be spread through blood transfusion. To date, there have been no confirmed cases of blood transmission in the United States.

What are the Potential Complications of Zika Virus Disease?

A very small number of people can develop complications:

- Babies born with microcephaly
 - Lack of proper development of brain results in abnormally small head and brains in newborns.
- Guillain-Barré syndrome
 - Body's immune system attacks the nerves, resulting in muscular weakness and tingling. A serious complication of Guillain-Barré is respiratory muscle weakness.

Treatment and Prevention

Treatment is relieving symptoms. There is no specific treatment or vaccine for Zika virus. The best prevention is protection against mosquito bites.

CDC recommends that pregnant women consider delaying travel to countries where Zika is active. List of areas with ongoing Zika virus transmission is available online (<http://wwwnc.cdc.gov/travel/notices/>).

Be Informed

CDC website: <http://www.cdc.gov/zika/>

Confirmed cases of Zika virus in the US States



Reference: CDC website as of March 16, 2016
Travel-associated cases reported

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