



State of Louisiana

Louisiana Department of Health
Office of Public Health

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On February 1, 2016, the World Health Organization (WHO) declared Zika virus a Public Health Emergency of International Concern (PHEIC). As frontline health care providers, your pharmacy has an opportunity to assist with educating the public concerning the threat of Zika by providing resources that focus on prevention and preparedness.

Zika Virus

Zika virus spreads to people primarily through the bite of an infected *Aedes aegypti* and *albopictus* mosquito. The mosquitoes that carry Zika are aggressive daytime biters, but they can also bite at night. A mosquito becomes infected when it bites a person already infected with Zika. That mosquito can then spread the virus by biting more people. These mosquitoes are the same species that spread Dengue and Chikungunya.

Zika virus can also spread:

- During sex with a man infected with Zika.
- From a pregnant woman to her fetus during pregnancy or around the time of birth.
- Through blood transfusion (likely but not confirmed).

Zika Symptoms

Many people infected with Zika may not have symptoms or may have mild symptoms. The most common symptoms are fever, rash, joint pain, or conjunctivitis (red eyes). Other common symptoms include muscle pain and headache. Symptoms can last for several days to a week. Once a person has been infected with Zika, they are likely to be protected from future infections.

Zika Complications

Zika infection during pregnancy can cause fetuses to have a birth defect of the brain called microcephaly. Other problems have been detected among fetuses and infants infected with Zika virus before birth, such as defects of the eye, hearing deficits, and impaired growth. There have also been increased reports of Guillain-Barré syndrome, an uncommon sickness of the nervous system.

Zika Treatment

Currently, there is no vaccine to prevent or medicine to treat Zika virus. Treatment recommendations include decreasing physical activity and increasing fluid intake to prevent diarrhea. Medications such as acetaminophen (Tylenol®) or paracetamol reduces fever and pain. Aspirin and non-steroidal anti-inflammatory drugs (NSAIDS) are contraindicated until dengue can be ruled out to reduce the risk of bleeding. According to the National Institute of Allergy and Infectious Disease, the ideal vaccine development timeline for accelerated approval from FDA would be by December 2017.

Pharmacist Role in Zika Preparedness

Pharmacists will encounter patients who may have questions about travel to Zika-affected countries. As the first point of contact, pharmacists are well positioned to provide information and direct patients to Zika resources and prevention products. The Center for Disease Control and Prevention (CDC) and Louisiana Department of Health (LDH) recommends the following to prevent the spread of Zika:

- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning and window and door screens to keep mosquitoes outside.
- Take steps to control mosquitoes inside and outside your home.
- Treat your clothing and gear with permethrin or buy pre-treated items.
- Use Environmental Protection Agency (EPA)-registered insect repellents (containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products). Always follow the product label instructions.
 - When used as directed, these insect repellents are proven safe and effective even for pregnant and breastfeeding women.
 - Do not use insect repellents on babies younger than 2 months old.
 - Do not use products containing oil of lemon eucalyptus or para-menthane-diol on children younger than 3 years old.
- Mosquito netting can be used to cover babies younger than 2 months old in carriers, strollers, or cribs to protect them from mosquito bites.
- Sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.
- Prevent sexual transmission of Zika by using condoms or not having sex.

Zika Guidance

CDC and LDH have released guidance for healthcare providers in the U.S. who may come in contact with an ill person or who may have traveled to countries or territories with active Zika virus transmission. This guidance can be accessed at the following links:

Zika Virus 101:

<http://www.cdc.gov/zika/pdfs/fs-zika-basics.pdf>

Advisory For Travelers Traveling To and From a Zika Affected Area:

http://www.cdc.gov/chikungunya/pdfs/Arbovirus_outbound-508_072115-11x14.pdf

http://www.cdc.gov/chikungunya/pdfs/arbovirus_inbound_11x14_508.pdf

<http://wwwnc.cdc.gov/travel/files/zika-enjoy-vacation-infographic.pdf>

How to Protect You From Mosquito Bites:

http://www.cdc.gov/zika/pdfs/zika_protect_yourself_from_mosquito_bites.pdf

<http://www.cdc.gov/zika/pdfs/mosqprevinus.pdf>

Zika Education for Pregnant Women:

<http://www.cdc.gov/zika/pdfs/zika-pregnancy-registry-what-pregnant-women-need.pdf>

<http://www.cdc.gov/zika/pdfs/zika-pregnancytravel.pdf>

LDH Infectious Disease Epidemiology Zika Virus Fact Sheet:

<http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/infectious-epi/PublicInfo/ZikaPublicInfo.pdf>

Zika Insect Repellent:

<http://www.cdc.gov/zika/pdfs/zika-repellant-cards-public.pdf>

http://www.cdc.gov/chikungunya/pdfs/fs_mosquito_bite_prevention_us.pdf

http://new.dhh.louisiana.gov/assets/docs/BayouHealth/Informational_Bulletins/2016/I_B16-12.pdf

http://www.lamedicaid.com/provweb1/pharmacy/mosquito_repellent_provider_memo_7-1-16.pdf

There have been no locally acquired cases of Zika in Louisiana, but the possibility exists that one could present to the healthcare system in Louisiana. In the State of Louisiana, Zika virus is a reportable disease. To discuss a possible exposure, request laboratory testing, or report a suspected case, contact the Office of Public Health immediately at 504-568-8313 or after hours 800-256-2748.

Early recognition is critical for controlling the spread of Zika. To stay up-to-date on the latest Zika virus information and developments, please visit CDC Zika website at

<http://www.cdc.gov/zika/index.html>.