

PUBLIC HEALTH REFERENCE SHEET

Zika Virus



Name	Zika virus
Reservoir & Transmission	Nonhuman and human primates are likely the main reservoirs of the virus, and anthroponotic (human-to-vector-to-human) transmission occurs during outbreaks. Perinatal, in utero, and possible sexual and transfusion transmission events
Incubation Period	3–14 days
Common Symptoms	Typically asymptomatic Common symptoms are fever, rash, arthralgias, and conjunctivitis; myalgia and headache
Gold Standard Diagnostic Test	Nucleic acid amplification test (NAAT) assays
Risk Groups	Travelers to endemic areas, pregnant women
Geographic Significance	Worldwide, periodic outbreaks in tropical and subtropical regions For areas with risk of Zika, see map below.

What is Zika virus?

Zika virus is a single-stranded RNA virus of the *Flaviviridae* family, genus *Flavivirus*. *Flaviviruses* are a group of viruses that are transmitted to humans by mosquitoes.

What is the occurrence of Zika virus?

Zika virus occurs in tropical and subtropical regions. Since 2007, outbreaks of Zika virus disease have occurred throughout the Pacific Islands and in Southeast Asia. In 2015, Zika virus was identified in the Western Hemisphere, where large outbreaks occurred in Brazil. The virus then spread throughout much of the Americas, resulting in several hundred thousand cases.

There is no current local transmission of Zika virus in the continental United States (CONUS). The last cases of local Zika transmission by mosquitoes in CONUS were in Florida and Texas in 2016–2017.

Since 2019, there have been no confirmed Zika virus disease cases reported from United States territories. No Zika virus transmission by mosquitoes has ever been reported in Alaska and Hawaii. For areas with risk of Zika, see CDC Zika Travel Information website at <https://wwwnc.cdc.gov/travel/page/Zika-information>.

How is Zika virus transmitted?

Zika virus is transmitted to humans primarily through the bite of an infected *Aedes* species mosquito (*Ae. aegypti* and *Ae. albopictus*). The mosquito vectors typically breed in domestic water-holding containers; they are aggressive daytime biters and feed both indoors and outdoors near dwellings. Nonhuman and human primates are likely the main reservoirs of the virus, and anthroponotic (human-to-vector-to-human) transmission occurs during outbreaks.

Perinatal, in utero, and possible sexual and transfusion transmission events have also been reported.

Zika virus RNA has been detected in breast milk, but there has not been documented transmission through breast milk.

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Who is at risk for Zika virus?

Anyone who lives in or travels to an area with risk of Zika and has not already been infected with Zika virus can get it from mosquito bites.

What are the signs and symptoms of Zika virus?

Many people infected with Zika virus are asymptomatic. The characteristic clinical findings are acute onset of fever with maculopapular rash, arthralgia, or conjunctivitis. Other commonly reported symptoms include myalgia and headache. Clinical illness is usually mild with symptoms lasting for several days to a week. Severe disease requiring hospitalization is uncommon and case fatality is low. However, there have been cases of Guillain-Barré syndrome reported in patients following suspected Zika virus infection. Recently, the CDC concluded that Zika virus infection during pregnancy is a cause of microcephaly and other severe fetal brain defects. Due to concerns of microcephaly caused by maternal Zika virus infection, fetuses and infants of women infected with Zika virus during pregnancy should be evaluated for possible congenital infection and neurologic abnormalities.

What are the potential complications of Zika virus?

Zika virus disease is generally mild, and severe disease requiring hospitalization and deaths are uncommon. Zika infection during pregnancy can cause microcephaly and other severe fetal brain defects. Zika has been linked to other problems in pregnancies and among fetuses and infants infected with Zika before birth, such as miscarriage, stillbirth, defects of the eye, hearing deficits, and impaired growth. Rarely, Zika may cause Guillain-Barré syndrome.

Per CDC, Zika virus infection in a woman who is not pregnant would not pose a risk for birth defects in future pregnancies after the virus has cleared from her blood; once a person has been infected with Zika virus, he or she is likely to be protected from a future Zika infection.

How is Zika virus diagnosed?

Consider Zika virus infection in patients with acute onset of fever, arthralgia, conjunctivitis, or maculopapular rash who, ≤ 2 weeks of illness onset, lived in or recently traveled to areas with ongoing Zika virus transmission or had sex with someone who lives in or traveled to those areas. Because Zika and dengue virus infections have similar clinical presentations, patients with suspected Zika virus infection also should be evaluated for possible dengue.

Since Zika and dengue viruses share a similar global geographic distribution and cause infections that can be difficult to differentiate diagnostically, consider the global epidemiology of these two arboviruses when requesting testing and interpreting results. Zika virus testing guidance is updated as needed to address changes in the epidemiology. Some state health departments and many commercial laboratories perform Zika virus nucleic acid amplification testing (NAAT) and IgM testing. Confirmatory neutralizing antibody testing is available at CDC's Arboviral Diagnostic Reference Laboratory and selected health department laboratories. Current testing guidance is provided on the CDC website at <https://www.cdc.gov/Zika/hc-providers/testing-guidance.html>.

How is Zika virus treated?

No specific antiviral treatment is available for Zika virus disease. Treatment is generally supportive and can include rest, fluids, and use of analgesics and antipyretics. Because of similar geographic distribution and symptoms, patients with suspected Zika virus infections also should be evaluated and managed for possible dengue or chikungunya virus infection. Aspirin and other non-steroidal

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anti-inflammatory drugs (NSAIDs) should be avoided until dengue can be ruled out to reduce the risk of hemorrhage.

How can Zika virus be prevented?

- No vaccine or preventive drug is available for Zika virus. All travelers to areas with Zika virus transmission should take steps to avoid mosquito bites to prevent Zika virus and other vectorborne infections. Previous Zika infection likely provides protection from future infections, but it is uncertain for how long.
- Advise people with possible Zika virus exposure who want to reduce the risk for sexual transmission of the virus to an uninfected partner to follow current CDC recommendations. <https://www.cdc.gov/Zika/prevention/sexual-transmission-prevention.html>
- Although blood donations in the United States were previously screened for Zika virus RNA, the U.S. Food and Drug Administration ceased this requirement in May 2021 because the virus no longer has sufficient incidence to affect the potential donor population.
- Pregnant women should not travel to areas with ongoing Zika outbreaks. Before traveling to areas with current or past spread of Zika, pregnant people should discuss their travel plans with a healthcare provider. Pregnant people should consider the destination when traveling, their reasons for traveling, and their ability to prevent mosquito bites. If used according to the instructions on the product label, there are no restrictions on the use of insect repellents by people who are pregnant.

What are some Public Health considerations?

- As an arboviral disease, Zika virus is a nationally notifiable condition. Healthcare providers are encouraged to report suspected cases to their state or local health departments to facilitate diagnosis and mitigate the risk of local transmission. State or local health departments are encouraged to report laboratory-confirmed cases to CDC through ArboNET, the national surveillance system for arboviral disease.
- Zika virus cases are reported thru Disease Reporting System internet (DRSi). When reporting cases of Zika virus in the DRSi—
 - Specify the type of disease (e.g., congenital vs non-congenital).
 - Document relevant travel and deployment history occurring within the incubation period (3–14 days).
 - Document the circumstances for exposure (e.g., duty exposure, occupational activities, environmental exposures, other high-risk activities). Exposure is defined as one or more of the following:
 - Resides in or recent travel to an area with known Zika virus transmission
 - Sexual contact with a confirmed or probable case within the infection transmission risk window (up to 3 months) of Zika infection
 - Sexual contact with a person with recent travel to an area with known Zika virus transmission
 - Receipt of blood or blood products within 30 days of symptom onset
 - Organ or tissue transplant recipient within 30 days of symptom onset
 - Associate time and place with a confirmed or probable case.
 - Likely vector exposure is in an area with suitable seasonal and ecological conditions for potential local vector-borne transmission.

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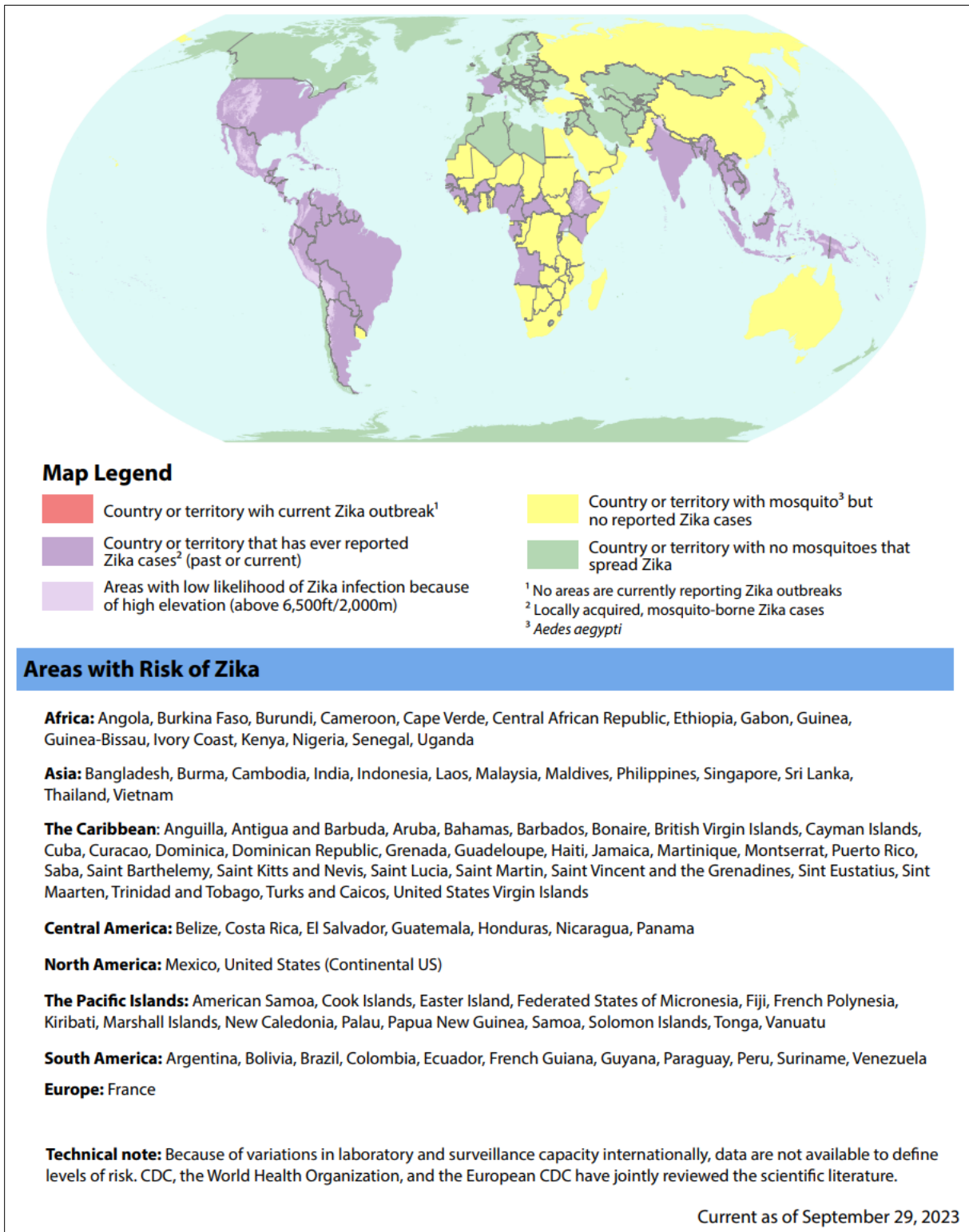


Image source: <https://wwwnc.cdc.gov/travel/files/Zika-areas-of-risk.pdf>

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