

The Johns Hopkins Office of Critical Event Preparedness and Response (CEPAR)

Zika Virus Frequently Asked Questions

ZIKA VIRUS

What should you know about Zika virus?

Zika virus is a mosquito-borne flavivirus, similar to dengue and West Nile virus, primarily transmitted through the bite of an infected *Aedes* genus mosquito. In 1947, the virus was first found in rhesus monkeys in the Zika Forest of Uganda. Before 2007, the disease in humans was rare, with only 14 human known cases of the disease. In 2007, Zika appeared on Yap Island (Micronesia) in the southwestern Pacific Ocean, where within a few months, it affected three-quarters of the island's 11,000 residents. In early 2015, a Zika virus outbreak began in Brazil. Since then, there have been outbreaks in many countries in Central America, the Caribbean, South America, Puerto Rico, the U.S. Virgin Islands and Mexico. The virus itself could spread to the southeastern United States and the Gulf states, where the *Aedes* mosquito is known to exist. So far, there have been no local mosquito-borne transmissions of the virus in the continental U.S. However, there have been travel-associated and sexually transmitted infections diagnosed stateside. It is difficult to determine how and where the virus will spread over time. For current Zika travel notices, please see the [CDC travel website](#).

Why is the World Health Organization concerned about Zika?

The World Health Organization has designated Zika virus a public health emergency of international concern (PHEIC). A PHEIC is defined as an extraordinary event that is determined to constitute a public health risk through the international spread of disease and to potentially require a coordinated response. This designation has been given only three times previously — the last time was in August 2014 during the Ebola crisis.

Is Zika more concerning than Ebola?

By the time Ebola emerged in Guinea in late 2013, it had been studied extensively, and we mostly knew what to expect. For years, Zika was not considered a menace and did not get much scrutiny. There is a lot of mystery surrounding Zika virus. In short, experts aren't sure what will turn up next, so some at the World Health Organization are considering Zika "more insidious, cunning and evil" than Ebola. With Ebola, we knew that transmission required close human contact for person-to-person transmission to occur. With Zika, curbing the epidemic is more complicated because the disease is spread by mosquitoes, and mosquitoes are very effective in spreading disease. Some involved in the Zika response say the international response to Zika is already much better than it was during the Ebola crisis.

What disease does Zika virus infection cause?

A Zika virus infection is not harmful in most cases. The illness generally lasts from a few days to a week, beginning within two weeks of exposure to the virus. About 80 percent of Zika infections are without noticeable symptoms. Most of the concern about the virus comes from its possible association with fetal abnormalities, particularly microcephaly, which may occur if the infection is acquired during pregnancy and passed from the mother to the developing fetus. There is also concern that in rare circumstances,

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the infection may be associated with neurological effects, including a form of paralysis known as Guillain-Barré syndrome. At this time, the full potential of disease expression of the virus remains unknown.

What is the difference between imported cases and locally transmitted cases of Zika?

A person who has been bitten by an infected mosquito while traveling away from home is an imported case. A person who has NOT traveled recently but gets bitten by an infected mosquito where he or she lives, works or plays is called a local transmission. There have been no cases of locally acquired, mosquito-transmitted Zika in the continental U.S.

What are the symptoms of Zika virus infection?

Zika virus infection is not harmful in most cases. About 80 percent of the people infected with Zika virus won't even know they have the disease because they are asymptomatic (have no symptoms). When symptoms occur, they are generally mild and consist of fever, arthralgia (joint stiffness or pain), conjunctivitis (red eyes) and rash. They may also have muscle pain and headache. The illness generally lasts from a few days to a week.

What congenital abnormalities can occur when a pregnant woman has Zika?

Our knowledge of the link between Zika virus and birth defects is still evolving. Zika can be passed from a mother to her fetus during pregnancy. Infections with Zika during pregnancy have been linked to congenital microcephaly and other brain abnormalities. Microcephaly is a birth defect in which the size of a baby's head is smaller than expected and is often a sign that the brain did not develop normally. Microcephaly can happen for many reasons, but recent epidemiologic and laboratory studies suggest a link between Zika and microcephaly. Microcephaly is a lifelong condition. There is no known cure or standard treatment for microcephaly.

What is Guillain-Barré syndrome?

Guillain-Barré syndrome is a rare disorder where a person's own immune system damages the nerve cells, causing muscle weakness and, sometimes, paralysis. The symptoms can last a few weeks or several months. While most people fully recover from it, some people have permanent damage, and in rare cases, people have died. While the exact incidence of Guillain-Barré syndrome associated with Zika virus is not known, it is an uncommon occurrence.

How is Zika transmitted?

Zika virus is primarily transmitted by *Aedes* mosquito bites. There is evidence that the virus also can be sexually transmitted from a man to his sexual partners, although this is not the main route of transmission. In known cases of likely sexual transmission, the men had symptoms of Zika infection. Zika

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virus is not known to be spread through routine, direct human-to-human contact. It is unknown if an infected woman can spread the disease to her sexual partners. Transmission via blood transfusions has been reported in Brazil, but not in the United States. Zika virus usually remains in the blood of an infected person for about a week and rarely can be detected for longer periods. The virus is present in semen longer than blood, but it is not known for how long it can persist. In one individual, viral antigen was found in semen at least two weeks following exposure, possibly being present up to 10 weeks or more after falling ill.

Do men need to worry about the Zika virus?

Zika virus has been found in the semen of some infected men, and a man could potentially infect his pregnant sexual partner, putting the unborn baby at risk for infection and possibly interfering with development. Currently, we don't know how long the virus stays in semen and over what period of time a man can transmit the virus through unprotected intercourse. Evidence of virus in semen has been recovered as late as 10 weeks after the exposure. The Centers for Disease Control and Prevention is advising men who have returned from a Zika-affected area to consider abstaining from intercourse or using condoms for an unspecified period of time if their partner is pregnant or considering pregnancy.

How do I know if I've been infected? Is there a test?

Zika is often a silent infection and is difficult to diagnosis. Currently, there is no widely available test for Zika infection. To detect Zika, a blood or tissue sample must be sent to the state laboratory or the Centers for Disease Control and Prevention so the virus can be detected through sophisticated molecular testing. Several commercial companies are working on rapid tests for Zika infection.

How can Zika be cured?

There is no vaccine to prevent Zika virus infection or medication to treat Zika virus infections.

What should I do if I think I may be infected?

Any pregnant woman who traveled at any time during her pregnancy to a place where Zika virus is circulating or had unprotected intercourse with a man who traveled in the past three months to a place where Zika virus has been circulating should speak to her obstetrician about testing and follow-up, even if she has not had any symptoms of illness. Other people who become ill during travel or within two weeks of return from travel and have the symptoms of a Zika virus infection should seek evaluation by their primary health care provider.

Can I get this disease the same way the annual flu is transmitted?

No, Zika cannot be transmitted by casual, person-to-person contact.

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What is the goal in fighting Zika?

Right now, the overarching goal is to protect pregnant women. Many of the countries where Zika virus is present have poorly developed health care systems.

What lies ahead for the United States?

Experts are divided about this. Some experts believe it is only a matter of time before the mosquito that transmits the Zika virus makes its way to the continental U.S. Zika virus is already present in Puerto Rico, and there are dozens of daily flights between San Juan and Orlando, Washington, New York and other major U.S. cities. Almost all Zika cases in Puerto Rico involve people being bitten by Zika-infected mosquitoes (local transmission). As far as the continental U.S., Florida and the Gulf Coast appear to be the most vulnerable because of their warm, humid climates. Some believe there is also a risk the mosquito could spread northward during the warmer summer months. Still others believe it is unlikely the U.S. will have a major Zika outbreak.

PREGNANCY and TRAVEL

I'm pregnant, and I recently visited a country where Zika virus is circulating. What should I do?

Any pregnant woman who has traveled at any time during her pregnancy to a place where Zika virus is circulating or had unprotected intercourse with a man who has traveled in the past three months to a place where Zika virus has been circulating should speak to her obstetrician about testing and follow-up, even if she has not had any symptoms of illness. Our understanding about Zika virus continues to evolve, and we don't know if there is a safe time during pregnancy to travel to areas with a Zika outbreak.

I'm pregnant. Can I travel outside of the continental United States?

If you are pregnant, you should consider delaying or canceling your travel to areas where [Zika virus is spreading](#). Until more is known, pregnant women with male sex partners who have lived in or traveled to an area with Zika virus should refrain from intercourse for the duration of the pregnancy or [use condoms the right way](#) every time during intercourse.

TRAVEL

While I am traveling, what can I do to help prevent getting Zika virus?

You should avoid mosquito bites. Mosquitoes that carry Zika virus mostly bite during the day. Mosquito prevention strategies include wearing extremity-covering clothing, using Environmental Protection

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Agency-registered insect repellents (always follow the product label instructions), wearing permethrin-treated clothing and gear, choosing a hotel or lodging with air conditioning or a place with screens on the windows and doors, or sleeping under a mosquito net if the room is not screened. Recent research has shown that the *Aedes* species mosquito is unlikely to be found at elevations higher than 2,000 meters due to unsuitable ecologic factors. Consequently, travel that is entirely limited to elevations higher than 2,000 meters is considered to pose minimal likelihood for mosquito-borne Zika virus transmission.

TRAVEL: JOHNS HOPKINS FACULTY, STAFF and STUDENTS

I'm a Johns Hopkins faculty member and have been asked to go to a conference in Brazil. I'm worried about going. Do I have to travel?

The Johns Hopkins Office of Critical Event Preparedness and Response, on behalf of Johns Hopkins institutions, ***strongly advises all women faculty and staff members, students, and trainees who are pregnant or trying to conceive (or otherwise sexually active and at risk of pregnancy) against travel to [Zika virus-endemic areas](#)***. Men whose sexual partners are pregnant or trying to conceive should abstain from intercourse or [use condoms consistently and correctly](#) for the duration of the pregnancy after traveling to a region with active Zika transmission.

I'm an undergraduate student and recently traveled to a country that has Zika virus. Now I'm concerned about having a Zika virus infection. What should I do?

Any Johns Hopkins faculty or staff member, student, or trainee who has traveled to a Zika virus-endemic area on a Johns Hopkins-sanctioned initiative and believes he or she may have been exposed to Zika virus may utilize [Johns Hopkins Occupational Health Services](#) or [Student Health Services](#), as applicable, for guidance.

Can I vacation to a Zika virus outbreak country?

The Johns Hopkins Office of Critical Event Preparedness and Response, on behalf of the Johns Hopkins institutions, ***strongly advises all women faculty and staff members, students, and trainees who are pregnant or trying to conceive (or are otherwise sexually active and at risk of pregnancy) against travel to [Zika virus-endemic areas](#)***. Men whose sexual partners are pregnant or trying to conceive should abstain from intercourse or [use condoms consistently and correctly](#) for the duration of the pregnancy after traveling to a region with active Zika transmission.

I'm not pregnant, and I'm planning to go to the Olympics in Brazil. What should I do?

Some pregnancies are unintended. If you visit a country where Zika transmission has been reported, we advise strict use of birth control or meticulous adherence to safe sex practices to ensure you do not get pregnant.

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HEALTH CARE WORKERS

I am a pregnant health care worker. Do I need to be worried about taking care of patients who have Zika or have traveled to a country that has Zika virus?

No, you do not need to be worried about catching Zika virus from one of your patients. Zika is only transmitted by being bitten with the *Aedes* mosquito or through sexual contact with a person who has been infected with Zika virus. If you are still concerned, you can talk to your supervisor or someone in the Occupational Health Services office.