

# Diseases, Disorders and Injuries

## **Zika Virus**

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#### What is Zika virus disease?

Zika virus disease is caused by the Zika virus, a type of flavivirus. This virus is spread to people primarily through the bite of a mosquito that carries the Zika virus. The Zika virus is related to dengue fever, West Nile, yellow fever, and encephalitis.

#### How is Zika virus transmitted?

The Zika virus is primarily spread by specific varieties of mosquitos (*Aedes aegypti* and *Aedes albopictus*) that live in tropical and sub-tropical regions, including Africa, Asia and the Pacific, South and Central America, the Caribbean, and the southern United States. When an infected mosquito bites a person, the virus is injected into the blood stream along with the mosquito's saliva.

No mosquito-related outbreaks have occurred in or are likely to occur in Canada as the varieties of mosquitos that carry the virus cannot survive in colder climates. Therefore, the risk of being infected while in Canada is currently low. Climate change may increase the domestic risk of mosquito-borne diseases such as Zika, if *Aedes* populations become established in the future.

The virus can also be spread by:

 Sexual transmission through contact with infected semen, vaginal fluid, blood, other body fluids, and sex toys during vaginal, anal, or oral sex without a condom.

- An infected, pregnant woman to her developing baby.
- Cell, blood, tissue, sperm, and organ donations from infected donors.

#### Who is at risk?

People at greater risk of Zika virus infection include:

- All travellers to regions with active Zika virus outbreaks.
- Sexual partners of infected persons.
- Pregnant women who become infected can pass the Zika virus onto their unborn child.
- Medical patients who receive blood, cells, tissue, sperm, or organs from an infected donor.
- Workers who come into contact with the blood or other body fluids of Zika-infected patients (for example healthcare and laboratory workers).

### What are the signs and symptoms of Zika infection?

Many people who are infected with Zika virus will not have any symptoms. In general, only 1 in 4 people with a Zika virus infection show symptoms.

People who show symptoms may have:

- skin rash
- red eyes (conjunctivitis, pink eye)
- mild fever
- weakness
- headaches
- nausea and vomiting
- · lack of energy
- · sore joints and muscles

Zika symptoms may appear from 3 to 14 days after infection. Symptoms, if they appear, are usually mild and may last 2 to 7 days.

The Zika virus can remain in the body and be transmitted through bodily fluids and tissues for a prolonged period of time after the onset of illness (with or without symptoms).

Although rare, Zika virus infection during pregnancy can cause birth defects in babies including incomplete brain development, abnormally small heads (microcephaly), and other malformations that when seen together are called congenital Zika syndrome (CZS). Pregnancy complications including pre-term birth and miscarriage may also occur.

Also rare, Zika virus infection has been linked to occurrences of neuropathy (damage to nerves), myelitis (inflammation of the spinal cord), and Guillain-Barré Syndrome (nervous system disorder that causes muscle weakness and possibly paralysis).

#### How do I know if I have a Zika virus infection?

Your health care provider can determine whether you should be tested for Zika virus infection based on your symptoms, places and dates of travel, and activities. Pregnant travelers returning from Zika outbreak countries should discuss concerns with their health care provider.

#### Can Zika virus infections be treated?

Currently, there is no treatment or vaccine for the Zika virus infection. Treatment is provided to relieve symptoms of the infection, which can include rest, drinking plenty of fluids, and taking medication to reduce pain and fever. Do not take acetylsalicylic acid (ASA) until a possible infection from Dengue virus has been excluded since Dengue is also common in mosquitoes in Zika outbreak areas.

### How can Zika virus infection be prevented?

The best way to avoid infection is to avoid travel to Zika-outbreak areas. Consult the Government of Canada's '<u>Travel Advice and Advisories'</u> website to find out if your destination has a risk of Zika virus disease, and visit a travel health clinic at least 6 weeks before you travel.

Employers that require workers to travel to Zika-outbreak areas should ensure that the workers know about the risk of Zika virus disease and how to prevent mosquito bites. The mosquitoes that carry Zika virus are especially active during daytime and early evening hours.

If travelling to a Zika-outbreak area avoid bites from mosquitoes by taking the following precautionary measures:

- Wear long sleeved shirts that are tucked in, and long pants.
- Wear closed-toe shoes or boots (not sandals) and a hat.
- Always read the entire label carefully before using insect repellents.

- Use insect repellent on any exposed skin. Avoid spraying directly on the face or contact with lips, eyes, open cuts, or irritated skin.
- Spray clothing with insect repellent since mosquitoes may bite through thin clothing.
- Reapply repellent if biting occurs.
- Choose indoor accommodations that are air-conditioned, and that have well-screened doors and windows.
- Use mosquito netting (bed net) when sleeping outdoors or in a building that does not have well-screened windows and doors.
- Eliminate mosquito breeding sites near the workplace and living quarters, such as containers of standing water and refuse piles.

Health Canada also advises travel and sexual activity precautions for Zika virus.

All travellers should take precautions by using condoms or by avoiding sexual contact when in countries or areas with a risk of Zika virus.

Women who are pregnant should:

Discuss potential travel plans with their health care provider, and may choose to
postpone or avoid travel to regions with potential Zika risk. Note that the Public Health
Agency of Canada continues to recommend that pregnant women avoid travelling to
areas with a current Zika virus outbreak.

Women who wish to become pregnant should:

- Consider postponing or avoiding travel to regions with potential Zika virus risk or an active outbreak.
- Wait at least 2 months after travel to a Zika-outbreak area or after illness due to a Zika infection before trying to conceive.

Males who have travelled to Zika-outbreak areas should:

- Avoid unprotected sex for at least 3 months after travel by using condoms or avoiding sexual contact.
- Wait 3 months after travel before trying to conceive (trying to become pregnant with your partner).
- Take precautions to not infect a pregnant partner, by avoiding unprotected sex throughout the pregnancy.

Speak to your health care provider for more information.

### Where can I get more information?

More information is available from:

- Zika Virus Health Canada
- Zika Virus U.S. Centers for Disease Control and Prevention (CDC)
- Zika Virus World Health Organization (WHO)

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