



**Office of the
Chief Medical
Health Officer**

February 5, 2016

Zika Virus Update

Recommendations for the management of returning pregnant travellers to BC in development and are likely to change. We will share further changes as soon as available.

An outbreak of the mosquito borne Zika virus is widely reported from the Americas as well as Samoa in Oceania and Cape Verde in Africa. Human infections with Zika virus have been recognized since the 1950s, but these are the first outbreaks of this magnitude. Active Zika virus transmission has been reported from numerous countries in Mexico, Central America, South America and Pacific Islands. Please see <http://www.cdc.gov/zika/geo/index.html> for the latest information on affected countries.

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What is Zika virus?

Zika virus is a mosquito-borne flavivirus transmitted primarily by *Aedes* mosquitoes, which also transmit dengue and chikungunya viruses. Transmission has also been reported perinatally, in utero, through sexual contact and transfusion events.

What are the symptoms and complications of Zika virus infection?

Up to eighty percent of those infected have no symptoms. Of those with symptoms, the disease is generally mild, with acute onset of low-grade fever, maculopapular rash, arthralgia, or non-purulent conjunctivitis, lasting from several days to one week. Headache and myalgias are also reported. Severe disease is uncommon, and death is rare. Guillain-Barré syndrome has been reported following suspected Zika virus infection, and a potential link between Zika virus infection in pregnant women and microcephaly in the infant is being investigated. There is no specific treatment for Zika virus.

Are cases expected in Canada?

Cases of Zika virus in Canada have been confirmed following travel to areas with Zika virus transmission. The risk of infection in Canadians is low, as mosquitoes known to transmit the virus are not established in Canada. Sexual transmission of the virus from infected returning travellers is possible.

Prevention:

There are no vaccines or prophylactic medications available to prevent Zika virus infection. As such, pregnant women and women trying to get pregnant, during their travels or immediately afterwards, should avoid travel to areas where Zika is being transmitted. There is no recommendation to avoid travel for other travellers.

If travel to an area with Zika virus transmission cannot be avoided by a pregnant woman or a woman planning to become pregnant, strict precautions to avoid mosquito bites should be taken at all times of the day and night. These recommendations should also be provided to all other travellers to these areas.

Please advise travellers that *Aedes* mosquitoes bite both indoors and outdoors, night and daytime, and to

- Wear long-sleeved shirts and long pants,
- Use a recommended insect repellent according to instructions on the product label; those containing **DEET (20%)** and **Icaridin (20%)** are effective and safe for pregnant women
- Use permethrin-treated clothing and gear
- Stay and sleep in screened-in or air-conditioned rooms
- If staying outside, sleep under a mosquito bed net

For more information please see: <http://travel.gc.ca/travelling/health-safety/insect-bite>

There is a risk of sexual transmission during and after Zika virus infection. The magnitude and duration of risk is not known. For maximum protection, if a woman's partner has travelled to a country with active transmission, advise them to use condoms in order to prevent pregnancy, or if the woman is already pregnant, to abstain or use condoms for the duration of the pregnancy. This recommendation may be revised as more information is gained about the duration of viremia.

Management of Returning Travellers

Since Zika virus infection is generally mild and self-limiting, Zika virus testing is not indicated for returning travellers **unless the traveller was pregnant during or within one month of returning from travel to a Zika virus affected area. Testing should be arranged in consultation with an Island Health Medical Microbiologist.** Testing for other travellers can be considered on a case-by-case basis, in consultation with an Island Health Medical Microbiologist. Please consult www.viha.ca/physicians for the medical on-call schedule for medical microbiology.

Management of returning pregnant travellers who did not have symptoms consistent with Zika virus during or shortly following their travel is challenging as the sensitivity and specificity of Zika virus antibody testing among those who are asymptomatic is not known. Laboratory testing for Zika virus is not yet fully validated and crossreactivity with related flaviviruses (e.g. dengue) is common. Results need to be interpreted in consultation with a medical microbiologist.

At this time, **it is recommended that all pregnant women (symptomatic AND asymptomatic) returning from a Zika affected area be offered Zika virus testing and a routine ultrasound at 18-20 weeks gestational age.** Consider additional testing for other travel-related febrile illness if indicated. Those with negative or unknown Zika virus serology and a normal baseline ultrasound, may be offered monthly ultrasounds for reassurance.

Referral to an **Island Health Obstetrician and Infectious Disease physician** (particularly if acutely symptomatic) is recommended for pregnant women who

- Have a positive test for Zika virus infection OR
- Have an abnormality on ultrasound consistent with congenital viral infection

Any pregnant patients with symptoms and history consistent with Zika virus AND a positive Zika test OR finding of fetal microcephaly or intracranial calcifications should be reported to Communicable Disease as a suspect case. **The medical health officer is also available for consultation for other situations.**

**Table 1. Zika Virus Testing for Pregnant Women
Clinical presentation Recommended Tests**

Presentation	Recommended Specimens
<p>Acutely ill: 1. Report two or more symptoms consistent with Zika virus disease (acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis) with onset during or within 2 weeks of travel AND 2. Is currently symptomatic or symptom onset was in the previous 5-10 days.</p>	<p>1. 5ml EDTA purple top blood tube for Zika virus RNA detection 2. 5 ml gold top serum separator tube for Zika virus serology 3. Urine for Zika virus RNA detection 4. Nasopharyngeal swab for Zika virus RNA detection</p> <p>Please provide both the travel and clinical history, including the date of onset of symptoms and indicate that samples are to be forwarded to the BCCDC Public Health Laboratory.</p>
<p>Recovered: 1. Reported symptoms consistent with Zika virus disease with onset during or within 2 weeks of travel 2. No longer symptomatic, and symptom onset was more than 10 days ago</p>	<p>5 ml gold top serum separator tube for Zika virus serology, collected one month after symptom resolution</p> <p>Please provide both the travel and clinical history, including the date of onset of symptoms and indicate that samples are to be forwarded to the BCCDC Public Health Laboratory.</p>
<p>Asymptomatic: 1. No symptoms consistent with Zika virus disease with onset during or within 2 weeks of travel</p>	<p>5 ml gold top serum separator tube for Zika virus serology, collected one month after return from Zika affected area</p> <p>Please provide travel history, including the date of return, and indicate that samples are to be forwarded to the BCCDC Public Health Laboratory</p>

For further information: <http://www.phac-aspc.gc.ca/phn-asp/2016/zika-eng.php> http://www.paho.org/hq/index.php?option=com_content&view=article&id=11585&Itemid=41688&lang=en
<http://www.cdc.gov/zika/index.html>



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