

Key points:

- **The main risk factor is mosquito bites while travelling in an area with Zika virus transmission.**
- **Pregnant women with compatible travel history should be tested even if asymptomatic.**
- **Laboratory requisitions must include travel and clinical details.**

Preliminary Diagnosis

Preliminary diagnosis is based on the patient's:

- clinical features
 - fever (often less than 38.5°C)
 - non-purulent conjunctivitis
 - maculopapular rash (face and body)
 - arthralgias
- places and dates of travel
- activities

Returning Travelers

Testing for Zika virus infection should be considered in the diagnosis of any **ill** traveller:

- with compatible epidemiologic and clinical history
- who visited a country where Zika virus transmission is ongoing or widespread
- with symptom onset:
 - within 3 days after arrival
 - up to 14 days after departing
- with neurological symptoms. The association with Guillain-Barré syndrome is under investigation and expert consultation is recommended.
- Testing for dengue, chikungunya, and malaria should also be done as appropriate.
- Asymptomatic pregnant women with compatible travel history should be tested.

Testing is generally not warranted for returning travellers:

- whose clinically compatible illness has resolved
- who have travelled and remain asymptomatic **unless the traveller was pregnant during or within one month of returning from travel to an area with Zika virus transmission.**

Table 1. Laboratory Testing for Zika Virus

Clinical Presentation	Recommended Tests	Required Information on Requisition
Asymptomatic:		<ol style="list-style-type: none"> Country(-ies) visited in last 2 weeks Date of arrival in affected area Date of return to NL Indicate whether asymptomatic Date of symptom onset Clinical symptoms -fever -conjunctivitis -rash -arthralgias Pregnancy status and gestational age
Asymptomatic, non-pregnant	No testing	
Asymptomatic pregnant <ul style="list-style-type: none"> No symptoms during or within 2 weeks of travel 	Zika serology Collect sample ≥ 1 month after return from affected area	
Symptomatic:		
Acutely ill <ul style="list-style-type: none"> ≥2 symptoms Symptom onset during or within 2 weeks of travel Onset of symptoms within last 10 days 	<ol style="list-style-type: none"> 5ml gold top serum separator tube for RT-PCR Urine in sterile container for RT-PCR 1 ml CSF (as indicated) 	
Recovered <ul style="list-style-type: none"> ≥2 symptoms Symptom onset during or within 2 weeks of travel Not currently symptomatic and onset of symptoms was >10 days ago 	<ol style="list-style-type: none"> 5ml gold top serum separator tube for Zika virus serology Collect sample > 2 weeks after return from affected area 	

For further information contact the Public Health Laboratory:

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References:

- Government of Canada- For Health Professionals: Zika Virus. February 15, 2016. http://www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/zika-virus/professionals-professionnels-eng.php?id=health_prof#s4
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- Public Health Agency of Canada. Laboratory Testing Recommendations for Zika Virus. February 9, 2016. http://www.healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/laboratory-testing-zika-analyse-laboratoire/index-eng.php?id=zika_virus_16_hcdns
- Alberta Health Services. Update on Laboratory Testing for Zika Virus in Pregnant Females. February 10, 2016. <http://www.provlab.ab.ca/LabBulletin2016%5Cwf-lab-bulletin-pl-update-on-laboratory-testing-for-zika-virus-in-pregnant-females.pdf>