

What is Zika virus infection?

Communicable Diseases Factsheet

Zika Virus Infection

Zika virus infection is transmitted to people by mosquitoes carrying the virus and, rarely, by sexual transmission. Infection during pregnancy may cause serious birth defects in the baby. Pregnant women should defer to travel to Zika-affected countries. Travellers should take measures to avoid mosquito bites to prevent infection, including insect repellent.

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Zika virus infection (Zika) is caused by the Zika virus which is transmitted by certain types of *Aedes* mosquitoes and, rarely, by sexual transmission.

What are the symptoms?

Most infections don't cause symptoms (60-80%). When symptoms do occur they are usually mild and last 4 to 7 days. The main symptoms are fever, skin rash, sore joints, muscle pain and headache. Conjunctivitis (inflamed eyes) is also common, usually without a discharge. Symptoms usually develop from 3 to 12 days after being bitten by an infected mosquito. Zika symptoms may be difficult to distinguish from those of other mosquito-borne infections such as dengue and chikungunya.

There is now widespread scientific consensus that Zika virus infection can cause the following conditions:

- rare congenital developmental malformations, including microcephaly, in babies born to mothers exposed to Zika virus during their pregnancy
- rare neurological conditions, including Guillain-Barré Syndrome.

How is it spread?

People usually develop Zika virus infection after being bitten by a mosquito that is infected with the virus.

Zika is mainly spread by the mosquito *Aedes aegypti*. It is possible that other mosquitoes in the *Aedes* family may also be able to spread the virus. The mosquito becomes infected when it feeds on somebody who has Zika viruses in the blood during their infection. Once infected, the virus multiplies inside the mosquito and can infect other people when the mosquito feeds again.

Transmission of Zika from mother to baby can also occur, most probably across the placenta or possibly during delivery. Sexual transmission has also been reported – see advice on preventing sexual transmission below.

There is a theoretical risk of Zika transmission following transfusion of blood or a blood product collected from someone who was infected with the virus. However, the [Australian Red Cross Blood Service](#) currently defers donors who have travelled to countries with mosquito borne viruses that are a transfusion-transmission risk, such as dengue and malaria. As a result, all countries affected by Zika outbreaks are already covered by temporary travel deferrals in Australia.

Who is at risk?

Travellers who go to places where mosquitoes spread Zika to people are at risk of infection if bitten. There is currently no known risk of Zika virus in Australia. For further information on affected countries see the Australian Department of Health [List of countries with current or recent local transmission of Zika virus](#).

The sexual partners of travellers who have been infected with Zika while travelling overseas are also at risk. See the advice below on reducing the risk of sexual transmission after travel.

How is it prevented?

There is currently no vaccine against Zika.

To protect against mosquitoes and reduce the risk of diseases they transmit:

- Cover-up with a loose-fitting long sleeved shirt and long pants when outside
- Apply mosquito repellent to exposed skin
- Take special care during peak mosquito biting hours. The mosquitoes that transmit diseases such as dengue, chikungunya and Zika will bite all through the day
- Remove potential mosquito breeding sites from around the home and screen windows and doors
- Take extra precautions when travelling in areas with a higher risk of mosquito-borne diseases.

In addition to the general protection measures above, overseas travellers should also:

- Stay and sleep in screened or air-conditioned rooms
- Use a bed net if the area where you are sleeping is exposed to the outdoors. Nets are most effective when they are treated with a pyrethroid insecticide, such as permethrin. Pre-treated bed nets can be purchased before travelling, or nets can be treated after purchase.
- Avoid known areas of high mosquito-borne disease transmission or outbreaks.

For more detailed information on reducing the risk of mosquito bites at home and while travelling see the [Mosquitoes are a Health Hazard](#) factsheet. This also includes more information on mosquito repellents.

See the [Staying healthy when travelling overseas](#) factsheet for further information on travel.

Due to the concerns about the risk of severe outcomes for unborn babies, women who are pregnant or who are planning to become pregnant should consider delaying their travel to areas with active outbreaks of Zika.

Pregnant women who do choose to travel to Zika-affected areas should consult their doctor or travel clinic for personalised mosquito prevention advice prior to travel, and strictly apply these measures while travelling.

Preventing Zika in pregnancy and preventing sexual transmission

Zika virus infection in a pregnant woman may cause severe birth defects. Pregnant women should defer travel to High Risk countries*, while for Moderate risk* countries, a pregnant woman should consider deferring travel, based on her individual risk assessment. If the woman does decide to travel, discussion with a doctor about preventing Zika virus transmission from mosquitoes and sexual partners is advised.

* See the Australian Department of Health [List of Zika virus affected countries](#).

The advice for men and women regarding reducing the risk of sexual transmission of Zika virus is complex and under constant review as new information on the virus is collected. For the latest information see the national [Zika virus factsheet – The Basics](#) .

For further detailed advice see the [Zika virus – information for clinicians and public health practitioners](#) .

Assessment of pregnant women after travel

The assessment of pregnant women who have travelled to Zika-affected areas is not straightforward. The available tests may require 4 weeks following the last potential exposure to give a result. There is no specific treatment for Zika if a positive test is returned. A positive test in the mother gives no information on whether the foetus is infected or harmed.

- Pregnant women who develop symptoms compatible with Zika during or following travel to Zika-affected areas should be medically assessed and tested for Zika virus infection. A complete check for travel related illnesses compatible with symptoms of Zika virus infection is advised in addition to testing for Zika.
- Pregnant women with a history of potential exposure to Zika virus but with no history of an illness compatible with Zika virus infection should also be medically assessed. Test results can be difficult to interpret and there is a need to consider a range of factors. There is a low chance of

the disease being present in this population and so a higher risk of risks false positive results which needs to be discussed with the pregnant woman.

For further information the assessment of pregnant women returning from Zika virus-affected see the Australian Department of Health [Interim recommendations for assessment of pregnant women returning from Zika virus-affected areas](#).

How is it diagnosed?

Your doctor can take a blood sample and have it tested for the virus (if early on in the illness) and for antibodies against Zika virus. A second blood test taken two weeks later may be required to confirm a recent infection.

How is it treated?

There is no specific treatment for Zika. Your doctor will be able to advise you on treating the symptoms with medications such as paracetamol.

Treatment with aspirin or non-steroidal anti-inflammatory medicines is not recommended because of a potential increased risk of haemorrhagic syndrome (bleeding) reported with some related viruses, such as dengue, and the risk of a rare but serious illness called Reye's syndrome after viral infection in children and teenagers.

Pregnant women with Zika are referred for specialist obstetric assessment for advice on the monitoring of their baby. For more information see the Australian Department of Health [Interim recommendations for assessment of pregnant women returning from Zika virus-affected areas](#).

What is the public health response?

Laboratories are required to notify cases of arboviral infections such as Zika virus on diagnosis. Public health units follow up each case to determine where the person acquired the infection. This information is important to assist identifying if transmission is occurring in areas considered to be low-risk and to prevent transmission in Zika-receptive areas of Australia.

For more information

For information on current Zika outbreaks:

- Australian Department of Health [Zika virus website](#) (<http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-zikavirus>)
- Australian Department of Health [List of countries with local transmission of Zika virus](#) (<http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-zika-countries.htm>)
- [WHO Zika alert website](#) (<http://www.who.int/csr/don/archive/disease/zika-virus-infection/en/>)
- [WHO/PAHO Zika Virus infection website](#) (http://www.paho.org/hq/index.php?option=com_topics&view=article&id=427&Itemid=41484&lang=en)
- [CDC Travelers' Health website](#) (<http://wwwn.cdc.gov/travel/default.aspx>)

For further information please call your local Public Health Unit on **1300 066 055**.