



Zika Virus

The list of countries with endemic transmission of Zika virus continues to grow. First discovered in the 1940s in Uganda, it remained under the radar until fairly recently. Outbreaks in the South Pacific, Latin America and the Caribbean have occurred in recent years and now more than 60 countries have had reports of local transmission. In the last few months, many cases have been diagnosed in some South-east Asian countries including popular destinations for Australians like Singapore, Malaysia and Thailand.

Zika virus is from the same family (Flavivirus) as dengue, Japanese encephalitis and yellow fever. It is primarily transmitted by the same mosquito as dengue, chikungunya and yellow fever – the *Aedes aegypti* and *Aedes albopictus* mosquitos, which fortunately do not occur in WA but they are only in northern Queensland. All cases of Zika virus in Australia so far have been 'imported' from returned travellers. Unlike dengue, sexual transmission of Zika virus has also occurred, albeit uncommonly. Zika cannot be transmitted via casual contact.

There have been more than 50 confirmed cases of Zika diagnoses in Australia so far this year. The top few destination countries include Tonga, Fiji, Samoa, Mexico and Brazil. This is in contrast to dengue which has been diagnosed in about 1800 patients in Australia with about 500 of those from WA alone in 2016. All the WA dengue cases would have been acquired overseas. Zika co-infection with dengue and chikungunya is possible.

Zika only causes a mild illness usually, and very few deaths, with incubation period of 3-14 days. Fever, headache, arthralgia, myalgia, a generalised macular or maculopapular rash and conjunctivitis are the common symptoms that usually only last a few days. Zika has been linked to Guillain-Barre syndrome, an inflammatory demyelinating neuropathy which can also be precipitated by other infections like *Campylobacter* and influenza. The risk of this syndrome after Zika infection is about 1 in 5000 cases of Zika. Asymptomatic infection is thought to be very common.

The most concerning thing about Zika is its association with severe foetal outcomes including microcephaly when infection occurs during pregnancy.

There is no specific treatment or vaccine yet. Treatment is symptomatic. A person who has been infected with Zika is likely to be immune to further Zika infections.



Mosquito: *Aedes albopictus*

In Pregnancy

Women who are pregnant or plan to get pregnant should avoid travelling to countries where Zika transmission is on-going. The list of countries is constantly updated.

Pregnant women suspected of Zika infection should undergo testing and be referred for specialist obstetrical care if infection is suspected or proven.

Planning pregnancy

The World Health Organisation (WHO) recommend safe sex for 6 months after return from endemic areas for both males and females. However current Australian Guidelines mention a minimum of 8 weeks for females and 6 months for males.

Sex

Any man, regardless of symptoms, who has travelled to areas where Zika transmission is ongoing, and whose partner is pregnant, should abstain from penetrative sex or correctly use condoms for every sexual intercourse throughout pregnancy.

It is recommended that any man with confirmed Zika infection abstains from intercourse or uses condoms consistently for 6 months after resolution of symptoms.

Testing

All testing in WA is performed by the State viral reference laboratory on samples submitted by both private and public pathology collection centres.

Tests to perform for suspected acute or recent Zika infections:

- Serum for Zika antibodies & PCR testing

- Urine for Zika PCR (may be positive for up to a month of symptom onset)
- FBE (lymphopaenia, lymphocytosis, atypical lymphocytes), LFTs (may be mild-moderately raised), other similar infections e.g. serology for dengue, chikungunya, etc.

Testing for asymptomatic individuals planning pregnancy

Zika virus serology testing can be considered at least 4 weeks after leaving a Zika affected country (to enable enough time for detectable antibodies against Zika to develop).

Zika virus testing on semen is not currently available in WA.

There are many scenarios not covered by this brief article.

Prevention

Measures to prevent mosquito bites are recommended when travelling (also important to prevent other mosquito-borne diseases).

Information about emerging infections may become out-of-date rapidly. The current list of countries affected by Zika virus may be obtained via the Commonwealth Dept. of Health website.

Further information may also be obtained from websites of:

- Australian Commonwealth Dept of Health
- WA Dept of Health
- Centers for Disease Control and Prevention (CDC)

Google Zika Department of Health or Zika CDC