

## UPDATES ON ZIKA VIRUS IN MALAYSIA 2016

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## BACKGROUND

Malaysia had its first case of a pregnant woman with Zika was in September 2016. The 27 year old patient was 3 months pregnant who sought treatment in the hospital for Zika-like symptoms such as body aches, rashes and fever. Her husband who works in Geylang commutes to Singapore on a daily basis also showed similar symptoms. Tests conducted confirmed both were positive with Zika virus, making them the third and fourth case of Zika virus infection in Malaysia. Zika infection during pregnancy can cause a birth defect called **microcephaly** (underdeveloped and abnormal smallness of the head), which can cause life long problems such as seizures, intellectual disability, feeding problems, developmental delay, hearing loss and vision problems.

Zika virus is primarily a mosquito-borne disease. It's a single stranded RNA Flavivirus from the Flaviviridae family with 2 different virus lineages; the Asian lineage and the African lineage. *Aedes aegypti* and *Aedes albopictus* are the primary vector species transmitting Zika virus. These species are notably the same type of mosquito that can carry dengue virus and Chikungunya virus. *Aedes aegypti* is mainly restricted in its distribution to tropical and subtropical regions.

## SYMPTOMS

Many people infected with Zika do not exhibit symptoms or will only have mild symptoms. The incubation period ranges from **3 to 12 days**. The disease symptoms usually last for **2 to 7 days**. Most people recover fully without severe complications and require only simple supportive care. Person who has been infected with Zika will likely be protected from future infections. The main symptoms of Zika virus infection include:

- maculopapular rash (face to the body)
- retro-orbital pain
- low-grade fever (less than 38.5°C)
- myalgia, asthenia, headaches
- transient arthritis or arthralgia with possible joint swelling
- conjunctival hyperaemia or bilateral non-purulent conjunctivitis



## HOW IS ZIKA VIRUS SPREAD?

**Through mosquito bites:** Mosquitoes become infected when they feed on a person already infected with the virus. Infected mosquitoes can then spread the virus to other people through bites.

**From mother to child:** Pass the virus to the fetus during the pregnancy or around the time of birth. There are no reports of infants getting Zika virus through breastfeeding. Because of the benefits of breastfeeding, mothers are encouraged to breastfeed even in affected zone.

**Sexual Transmission:** It can be passed from a person with Zika before their symptoms start, while they have symptoms, after their symptoms end and who carries the virus but never develops symptoms. Zika can **remain in semen longer** than in other body fluids, including vaginal fluids, urine, and blood.

**Through blood transfusion:** There have been multiple reports of blood transfusion transmission cases in Brazil. During the French Polynesian outbreak, 2.8% of blood donors tested positive for Zika and in previous outbreaks, the virus has been found in blood donors.

**Through laboratory exposure:** Prior to the current outbreak, there were four reports of laboratory acquired Zika virus infections, although the route of transmission was not clearly established in all cases.

## PREVENTION

Unlike dengue, there is **no vaccine** to prevent Zika. The best way to prevent diseases spread by mosquitoes is to protect from its bites such as :

- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning and window and door screens to keep mosquitoes outside.
- Vector control.
- Treat your clothing and gear with permethrin.
- Insect repellent. (PRECAUTION!) Do not use insect repellents on babies younger than 2 months old OR products containing oil of lemon eucalyptus or para-menthane-diol on children younger than 3 years old.
- Mosquito netting (bed net) if air conditioned or screened rooms are not available or if sleeping outdoors.
- Prevent sexual transmission of Zika by using condoms or not having sex.

## TREATMENT

There is no specific drug/treatment for Zika virus. Other non-pharmacological treatment include:

- Get plenty of rest and drinking plenty of water to prevent dehydration
- Take medicines such as acetaminophen to reduce fever and pain.
- Do not take aspirin or other NSAID until dengue can be ruled out to reduce the risk of bleeding.
- If feeling unwell after returning from a country that has malaria as well as active transmission of Zika virus, medical advice is needed in order to help rule out a malaria diagnosis.

## ZIKA AND PREGNANCY

- It is recommended to avoid becoming pregnant while travelling to an area with active Zika virus transmission and for **eight weeks after return home**.
- Hence, pregnant women are recommended to postpone non-essential travel to areas with active Zika transmission until after pregnancy. If couples are currently in an area with active Zika virus transmission, ensure that condoms are used during sexual activity while travelling or abstinence from intercourse the duration of your pregnancy in order to eliminate the risk of getting Zika from sex.
- There are enough evidences to show that Zika virus infection is a cause of birth defects, including microcephaly and Guillain-Barré syndrome (GBS) in affected area.
- If your partner has travelled to an area with active Zika virus transmission, you should use effective contraception to prevent pregnancy **and** condoms to reduce the risk of sexual transmission.
- It is also recommended to take **folic acid supplements** for 28 days before trying to get pregnant.

### For people who **HAVE TRAVELED** to an area with Zika (Affected zone)

	If You Have Symptoms or Were Diagnosed with Zika	If You Have <b>NO</b> Symptoms
If you are pregnant (female)	Pregnant women should not travel to areas with Zika. If travel to an area with Zika is unavoidable, talk to your healthcare provider.	
If your partner is pregnant	Use condoms correctly, every time intercourse or abstinence for the entire pregnancy.	
If you and your partner are planning a pregnancy	<b>Women</b> - Wait at least <b>8 weeks (2 months)</b> after symptoms start. <b>Men</b> - Wait at least <b>6 months</b> after symptom start.	<b>Women</b> - Wait at least <b>8 weeks (2 months)</b> after exposure. <b>Men</b> - Wait at least <b>8 weeks</b> after exposure
If you or your partner are not pregnant and are not planning a pregnancy	<b>Men</b> - consider using condoms or abstinence for <b>at least 6 months</b> after symptoms begin. <b>Women</b> -consider using condoms or abstinence for <b>at least 8 weeks (2months)</b> after symptoms begin.	<b>Men and Women</b> - consider using condoms or not having sex for <b>at least 8 weeks (2 months)</b> after returning from travel.

### For people **LIVING** in an area with Zika. (Affected Zone)

	If You Have Symptoms or Were Diagnosed with Zika	If You Have No Symptoms
If you or your partner are pregnant	Use condoms from start to finish, each time during intercourse for the entire pregnancy.	
If you and your partner are planning a pregnancy	<b>Women</b> - Wait at least <b>8 weeks (2 months)</b> after symptom start. <b>Men</b> -Wait at least <b>6 months</b> after symptoms start.	Talk with healthcare provider about the risks and options available.
If you or your partner are not pregnant and are not planning a pregnancy	<b>Men</b> – consider using condoms or not having sex for at least <b>6 months</b> after symptoms begin. <b>Women</b> - consider using condoms or not having sex for at least <b>8 weeks (2 months)</b> after symptoms begin.	<b>Men and women</b> - consider using condoms or not having sex as long as there is Zika in the area. If either you or your partner develop symptoms of Zika or have concerns, talk to a healthcare provider.

If you...	When to be tested
Traveled to an area with Zika	If you have symptoms of Zika within 2 weeks of traveling, you should be tested for Zika. If you do not develop symptoms of Zika within 2 weeks of traveling, you should be tested for Zika.
Lives in area with Zika	You may be at risk of getting Zika throughout your pregnancy. For this reason, doctors or other healthcare providers can offer testing <ul style="list-style-type: none"> <li>At the first prenatal visit and</li> <li>A second test in the second trimester.</li> </ul> If you have symptoms of Zika at any time during your pregnancy, you should be tested for Zika.

### MALAYSIANS FROM SABAH MAY BE IMMUNE TO ZIKA INFECTIONS?

According to molecular epidemiologist Dr Kamruddin Ahmed from Universiti Malaysia Sabah, the Zika virus has been detected in apes and possibly humans in Sabah in the 1960s, which suggest that residents of the area may already have **natural antibodies** against the virus. Hence, Zika virus may not affect Sabahan the same way as it affects other people as Sabahan could have inborn antibodies since it is endemic in Sabah. The virus was identified in Bentong, Pahang in Peninsular Malaysia in 1966, positing that Zika may have remained in Malaysia since then. Scientists have also confirmed that the Orang Utan are among other apes that carry the virus, primarily the spread of the virus to humans is due to deforestation. However, experts stated that much has yet to be discovered about the Zika virus, and pregnant mothers in particular are still advised to continue being vigilant with precautionary measures.

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### References :

- <https://www.cdc.gov>
- [http://ecdc.europa.eu/en/healthtopics/zika\\_virus\\_infection/zika-outbreak/Pages/publications.aspx](http://ecdc.europa.eu/en/healthtopics/zika_virus_infection/zika-outbreak/Pages/publications.aspx)
- <http://www.nhs.uk/Conditions/zika-virus/Pages/Introduction.aspx#pregnant>
- WHO interim guidance update. Prevention of sexual transmission of Zika virus.
- <https://www.gov.uk/government/news/zika-virus-updated-travel-advice-for-pregnant-women>
- <http://healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/zika-virus/professionals-professionnels-eng.php>