



کمنٲرین کصیحتن  
KEMENTERIAN KESIHATAN  
MINISTRY OF HEALTH

# *Health Information Regarding* Zika Virus Disease

## FREQUENTLY ASKED QUESTIONS ON ZIKA VIRUS DISEASE

Last updated 16 September 2016

### **1 What is Zika?**

Zika virus disease is caused by the Zika virus (first identified in 1947), which is spread to people primarily through the bite of an infected mosquito (*Aedes aegypti* and *Aedes albopictus*). The infected person may usually show mild symptoms lasting up to a week, and many people (up to 80% of infected individuals) do not have symptoms. However, Zika virus infection during pregnancy can cause a serious birth defect called microcephaly and other severe brain defects.

### **2 How do people get infected with Zika?**

Zika virus is primarily transmitted to people through the bite of an infected *Aedes* mosquito, which also transmits chikungunya, dengue and yellow fever. A pregnant woman infected with zika can pass the virus to her fetus during pregnancy or around the time of birth. Also, an infected person can pass the virus to his or her partners through sexual contact.

### **3 What are the symptoms of zika virus disease?**

Zika virus usually causes mild illness. Symptoms most commonly include a mild fever or rash, appearing a few days after a person is bitten by an infected mosquito. Although many will not develop any symptoms at all, others may also suffer from conjunctivitis (red eye), muscle and joint pain, headache and feel tired. The symptoms usually last from 2 to 7 days. There is no known difference in the symptoms of infected pregnant and non-pregnant women.

### **4 What serious health problems can result from getting Zika?**

Many people infected with Zika will have no symptoms or mild symptoms that last several days to a week. However, Zika infection during pregnancy can cause a serious birth defect called microcephaly and other severe fetal brain defects. Current research suggests that Guillain-Barre syndrome (GBS), an uncommon sickness of the nervous system, is strongly associated with Zika; however, only a small proportion of people with recent Zika virus infection get GBS.

## **5 How can people prevent Zika?**

The best way to prevent Zika is to protect yourself and your family from mosquito bites as it is primary mode of transmission. Women who are pregnant or planning to become pregnant and their sexual partners should take extra care to protect themselves from the bite of mosquitoes that transmit Zika.

- Wear long-sleeved shirts and long pants
- Sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.
- Use registered repellents according to label instruction.
- Environmental cleanliness is important by taking preventive measures against mosquito breeding sites such as identifying and eliminating potential mosquito breeding sites, by emptying, cleaning or covering containers that can hold even small amounts of water, such as plastic containers, buckets, flower pots and tyres.
- Construction sites are known hotspots for mosquito breeding therefore extra care should be taken by construction workers and construction sites.

## **6 How is Zika diagnosed?**

It is recommended to consult with your doctor to diagnose Zika if you are symptomatic and having recent travel to one of the affected countries. Your doctor will ask you about recent travel and symptoms you may have, and collect blood or urine to test for Zika or similar viruses, if appropriate.

## **7 How can Zika virus disease be treated?**

Currently, there is no specific treatment or vaccine for Zika virus. The symptoms of Zika virus disease can be treated with supportive treatment such as common pain and fever medicines, rest and plenty of water. If symptoms worsen, people should seek medical advice.

## **8 What should I do if I am travelling to Zika-affected area?**

Travelers should stay informed about updated list of countries affected by Zika virus, and consult their local health or travel authorities if they are concerned.

During your trip, follow personal protective measures to prevent mosquito bites such as wearing long covered clothing, applying insect-repellent, and sleeping under mosquito nets or in rooms with air conditioning or screens. They should seek medical attention promptly if they become unwell.

Even if you do not feel sick, you should also protect yourself from mosquito bites till 3 weeks after returning from the trip in order to prevent infecting mosquitoes that could spread the virus to other people.

If you feel sick after your return from your trip, please consult with your doctor or health centre to find out if you need to be tested for the Zika virus.

You should adopt safer sexual practices, e.g. consistent and correct use of condoms during sex, or consider abstinence for at least eight weeks after your return. However, if you are a male partner of a pregnant woman you should practice safer sex practices throughout her pregnancy.

Pregnant women are advised to speak to their doctor prior to travel to areas of ongoing Zika virus transmission; pregnant women whose sexual partners live in or travel to areas with Zika virus transmission should ensure safer sexual practices or abstain from sex for 6 months after his return from an affected country.

## **9 Which countries are currently affected?**

As of 16 September 2016, 70 countries and territories have reported evidence of mosquito-borne Zika virus transmission since 2007. 53 of these countries and territories have reported evidence of mosquito-borne Zika virus transmission since 2015. Brazil has reported the largest number of cases, estimated at over 1 million infections in 2015.

Sporadic cases of local Zika virus infection have been detected in several countries in Southeast Asia, including Cambodia, Indonesia, Philippines, Malaysia, Vietnam, Lao People's Democratic Republic and Thailand previously.

As of 16 September 2016, Singapore reported 369 locally transmitted cases of Zika virus.

Please check the WHO website (<http://www.who.int/emergencies/zika-virus/situation-report/25-august-2016/en/>) for the updated list of affected areas.

## **10 How is the Ministry of Health responding to the Zika Virus case happening in Sabah and Sarawak?**

The Ministry of Health continues to monitor the evolving situation and strengthen our capacity to prevent, detect and control infection in the country. Individuals who recently returned from Sabah (or any other affected countries) within the last 2 weeks and are now experiencing symptoms such as fever, rash, muscle ache and conjunctivitis are advised to seek medical attention at the nearest health centres. The widening geographical spread of Zika Virus in this region highlights the importance of continued vigilance against this threat. We call upon all stakeholders including the public to participate fully in the national effort to prevent and control Zika Virus through ensuring a safe, clean and healthy environment that is free from mosquito breeding sites.

## **11 What should pregnant women who have to travel or have recently traveled to an area with Zika do?**

Pregnant women are advised to avoid non-essential travel to Zika affected areas. If travel to an area with Zika during pregnancy is necessary, it is important to prevent mosquito bites, and follow recommended precautions against getting Zika through sex. If they are unwell, they should seek medical attention immediately. They should consult their doctor after return to Brunei for advice.

Pregnant women who have recently traveled to an area with Zika should talk to their doctor about their travel, even if they do not feel sick. Pregnant women should see a doctor if they have any Zika symptoms during their trip or within 2 weeks after traveling.

## **12 Can mothers with Zika infection breastfeed their baby?**

Zika virus has been detected in breast milk but there is currently no evidence that the virus is transmitted to babies through breastfeeding.

WHO recommends exclusive breastfeeding for the first 6 months of life.

## **13 How is the Ministry of Health preparing for the possible occurrence of Zika in Brunei?**

The Ministry of Health continues to strengthen our capacity to prevent, detect and control Zika virus infections in Brunei Darussalam.

### *Prevention of Zika Virus infection*

- The Vector Control Unit conducts routine surveillance, environmental inspection and environmental management at known mosquito hotspots; controlling, eradicating mosquito breeding sites through the Integrated Vector Management process complementary to environmental sanitation by members of the public.
- Risk communication & community engagement such as available public information on MOH website ([www.moh.gov.bn](http://www.moh.gov.bn)), MOH Facebook and other social media sites, Talian Darussalam 123; and have issued press statements and press conferences highlighting the key role of community engagement.

### *Detection of Zika Virus infection*

- All clinicians are reminded to assess suspected patients with travel history within the last 12 days to the affected countries according to case definitions.
- Laboratory testing algorithm for Zika virus infection was developed to confirm the diagnosis.

### *Control of Zika Virus infection*

- Readiness for public health management of Zika virus infection such as epidemiology investigation; surveillance and contact tracing of travel companions and household contacts; and outbreak control standard procedures if there is importation of the disease in the country.
- Since the infection can be acquired through mosquitos which are naturally present in the community, the Ministry urges the public to practice cleanliness of environment; elimination of mosquito breeding grounds and personal protection measures to prevent mosquito bites.

#### **14 Does Zika virus cause Alzheimer's disease?**

Although some studies have reported an association between Zika and Alzheimer's-like disease on animal models (mice), further investigation needs to be done to test and examine this alleged correlation. The current scientific consensus, as presented by the WHO, is that in the vast majority of cases, Zika is a mild, self-limiting condition.

#### **15 If a woman who is not pregnant is bitten by a mosquito and infected with Zika virus, will her future pregnancies be at risk?**

Current evidence indicates that Zika virus infection does not pose a risk of birth defects for future pregnancies.

#### **16 Is it safe for pregnant women to use insect repellent?**

Yes, insect repellents sold in Brunei Darussalam are safe for use for pregnant women. You can also prevent mosquito bites by wearing long, covered clothing, and sleeping under mosquito nets or in rooms with wire-mesh screens or air-conditioned rooms to keep out mosquitoes.

## HEALTH ADVICE FOR BRUNEI RESIDENTS TRAVELLING TO ZIKA-AFFECTED COUNTRIES

Last updated 31 Aug 2016

1. The World Health Organisation (WHO) has not issued any specific trade and travel restrictions with respect to travelling to countries affected by Zika virus disease (see Annex 1 for list of countries affected by Zika). People continue to travel between the affected countries and territories for a variety of reasons. The best way to reduce risk of disease is to follow public health travel advice.
  
2. Based on ongoing risk assessment, Brunei residents travelling to countries affected by Zika are advised to take the following precautions with respect to the disease:
  - Appropriate measures should be taken to reduce the risk of becoming infected, including by preventing mosquito bites.
  - Travellers can protect themselves from mosquito bites by wearing long-sleeved shirts and trousers, applying insect-repellent, and sleeping under mosquito nets or in rooms with wire-mesh screen to keep out mosquitoes.
  - Zika virus can also be sexually transmitted. Therefore, travellers to practice safe sex or abstain from sex during their stay in areas with ongoing Zika virus transmission, and for at least eight weeks after their return. If men experience symptoms of Zika virus disease, they should adopt safer sex practices or abstain from sex for at least six months
  - Travellers returning from areas with ongoing Zika virus transmission, should not donate blood for at least four weeks after departure from the area.
  - Pregnant women are advised to avoid unnecessary travel to areas of ongoing Zika virus outbreaks. If travel is deemed necessary, they should speak to their clinician to consider the risk to themselves and the unborn child.
  - Women who inadvertently become pregnant or discover they are pregnant in or shortly after returning from areas with ongoing Zika virus transmission should contact their health care providers or visit their nearest health centre immediately upon return.
  - Travellers are advised to be aware of the symptoms of Zika Virus infection which are mild fever, conjunctivitis, skin rash and muscle aches. If any travellers develop any symptoms of Zika Virus infection, they are advised to seek medical attention immediately.
  - Travellers who have recently returned from Zika-affected countries are advised to monitor their own health and to look out for any symptoms of Zika for at least 14 days. They should seek medical attention if they develop any of the symptoms listed above.

3. With respect to vaccination:

- There is no specific vaccine against Zika virus disease.
- Travellers are advised to be up to date with their routine immunisations. This includes their yearly influenza vaccine.
- Additional vaccination against Hepatitis A, typhoid and yellow fever is also advised.
- Travellers are advised to be vaccinated at least 4 weeks before their date of travel
- Vaccinations can be obtained from the Vaccination Centre, Bandar Seri Begawan Health Centre in Ong Sum Ping or the District Health offices during office hours.



Annex 1: List of countries affected by Zika virus disease (as of 18 Aug 2016)

Classification	WHO Regional Office	Country / territory / area	Total
<b>Category 1: Countries with a first reported outbreak from 2015 onwards</b>	<b>AFRO</b>	Cabo Verde; Guinea-Bissau	<b>2</b>
	<b>AMRO/PAHO</b>	Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bolivia (Plurinational State of), Bonaire, Sint Eustatius and Saba – Netherlands*; Brazil; Cayman Islands; Colombia; Costa Rica; Cuba; Curaçao; Dominica; Dominican Republic; Ecuador; El Salvador; French Guiana; Grenada; Guadeloupe; Guatemala; Guyana; Haiti; Honduras; Jamaica; Martinique; Mexico; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Barthélemy; Saint Lucia; Saint Martin; Saint Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos; United States of America; United States Virgin Islands; Venezuela (Bolivarian Republic of)	<b>45</b>
	<b>WPRO</b>	American Samoa; Fiji; Marshall Islands; Micronesia (Federated States of); Samoa; Tonga	<b>6</b>
<b>Subtotal</b>			<b>53</b>
<b>Category 2: Countries with possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016</b>	<b>SEARO</b>	Indonesia; Thailand	<b>2</b>
	<b>WPRO</b>	Philippines; Viet Nam	<b>2</b>
<b>Subtotal</b>			<b>4</b>
<b>Category 3: Countries with evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or outbreak terminated</b>	<b>AFRO</b>	Gabon	<b>1</b>
	<b>PAHO/AMRO</b>	ISLA DE PASCUA – Chile**	<b>1</b>
	<b>SEARO</b>	Bangladesh; Maldives	<b>2</b>
	<b>WPRO</b>	Cambodia; Cook Islands**; French Polynesia**; Lao People's Democratic Republic; Malaysia; New Caledonia; Papua New Guinea; Solomon Islands; Vanuatu	<b>9</b>
<b>Subtotal</b>			<b>13</b>
<b>Total</b>			<b>70</b>

**Note:** MOH Singapore reported its first locally transmitted case of Zika virus infection on 27 Aug 2016. Further cases have been identified since.

# Supporting Documents



# ZIKA VIRUS

## What is Zika?

Zika is a virus transmitted by the *Aedes* mosquito, which also transmits dengue and chikungunya.

Zika can cause:



Headache



Conjunctivitis



Joint Pain



Skin rash



Onset is usually 2-7 days after the mosquito bite



1 in 4 people with Zika infection develops symptoms



A very small number of people can develop complications after becoming ill with the virus



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Health  
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World Health  
Organization  
REGIONAL OFFICE FOR THE  
Americas

#zika  
#FightAedes  
#ZikaVirus  
[www.paho.org/zikavirus](http://www.paho.org/zikavirus)



# ZIKA VIRUS

## How is Zika infection prevented?

To prevent mosquito bites that transmit Zika:



Cover skin and wear long sleeve especially during peak feeding times of the mosquito which are during the early morning and late afternoon/evening hours



Use insect repellent as recommended by health authorities



Sleep protected by mosquito nets



At least once a week, empty, clean, turn over, cover and/or dispose of containers that can hold water, such as tires, buckets and flower pots, both inside and outside of dwellings to eliminate mosquito breeding sites



Use screens or mosquito nets in windows and doors to reduce contact with mosquitoes

Controlling the breeding sites of *Aedes* mosquitoes reduces the likelihood of transmission of Zika, chikungunya, and dengue.



Pan American Health Organization



World Health Organization  
REGIONAL OFFICE FOR THE Americas

#zika  
#FightAedes  
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# ZIKA VIRUS

## Is there a treatment?

There is no vaccine or specific drug against this virus. Only pain and fever can be treated.

Patients with symptoms of Zika infection should:



Get plenty of bed rest



Wear clothing that covers arms and legs



Take medicine to relieve fever and pain



Use mosquito nets when napping



Drink plenty of liquids



If symptoms worsen or complications develop, see a doctor immediately



Pan American  
Health  
Organization



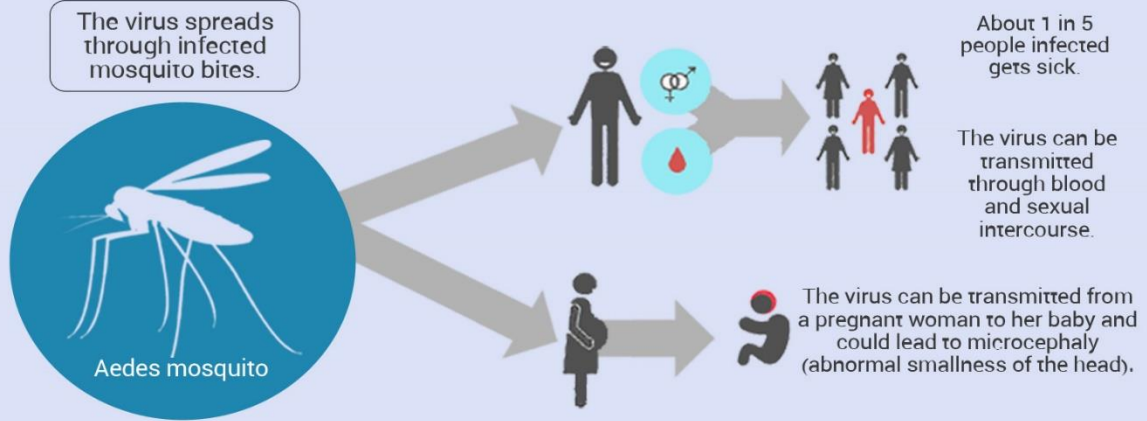
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PROTECT your HOME and SURROUNDINGS  
from **ZIKA** VIRUS

How does it spread?



How to eradicate mosquito breeding sites?

Mosquitoes lay their eggs in stagnant water. The most common breeding sites found in the home include domestic containers, flower pot plates and trays, ornamental containers, blocked drains, and even the toilet bowl / cistern. Here are some tips to ensure that we keep our home and surroundings mosquito free:

- 1 When not in use, it is important that we turn over all water containers and keep them dry, and cover all containers that contain water.
- 2 Change the water and brush the insides of sinks, water barrels and flower vases at least once a week to remove mosquito larvae.
- 3 Boats that are no longer used or containers that are not being used should be reversed so that water does not stagnate.
- 4 Discard unwanted plastic cups or water bottles into the litter bin.
- 5 Once a week, clear fallen leaves in drains and gardens and check that drains are free flowing and not blocked.

FOR MORE INFORMATION: ☎ | 123 📱 🌐



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MINISTRY OF HEALTH

STAY SAFE FROM  **ZIKA**  WHEN TRAVELLING



**Pregnant mothers** are advised to avoid unnecessary travel to Zika affected countries

**Cover up.**  
Use long sleeves  
and long pants



**Protect yourself.**  
Use insect repellent

**See a doctor** if you are ill during or 2 weeks after your trip



FOR MORE INFORMATION

   **123**  
[www.moh.gov.bn](http://www.moh.gov.bn)

# HOW to stay PROTECTED from ZIKA while travelling?



## Did you know...

The World Health Organisation (WHO) has not issued any specific trade and travel restrictions with respect to travelling to countries affected by Zika virus disease.

Anyone travelling to countries affected by **ZIKA** are advised to take the following precautions:

### Protect yourself and your family from mosquito bites.

- Wear long-sleeved shirts and trousers.
- Apply insect-repellent.
- Sleep under mosquito nets or in rooms with wire-mesh screen to keep out mosquitoes.



### Zika virus can also be sexually transmitted.

- Practice safe sex or abstain from sex during your travels and for at least eight weeks after your return.



### Avoid donating blood.

- At least four weeks after departure from the area travelled.



### Pregnant women are to be more cautious.

- Avoid unnecessary travel to areas of ongoing Zika virus outbreaks.



### After returning from your travels.

- Monitor your own health and to look out for any symptoms of Zika for at least 14 days after your return.



### Stay informed.

- Be aware of the symptoms of Zika virus which are mild fever, conjunctivitis, skin rash and muscle aches.
- If symptoms develop, you are advised to seek medical attention immediately.

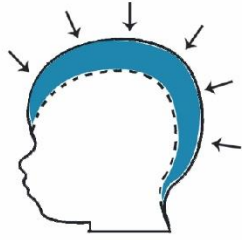


There is no specific vaccine against Zika virus disease.



For more information:    123

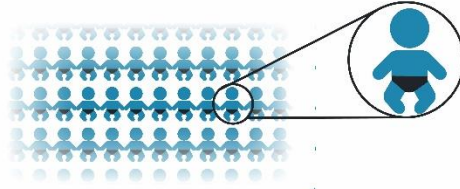




# MICROCEPHALY

Microcephaly is a condition where a baby is born with a small head or the head stops growing after birth.

**One baby in several thousand is born with microcephaly.**



## Causes

Some babies may have microcephaly because of:



Exposure to toxins or certain viral infections (e.g. rubella or Zika)



Drugs or alcohol abuse during pregnancy



Malnutrition



Changes in the baby's genes

## Diagnosis and symptoms



**1** Diagnosis is often made at birth or at a later stage by measuring the baby's head circumference.



**2** Early diagnosis can sometimes be made by fetal ultrasound.

In some cases, children with microcephaly develop entirely normally. Some can develop symptoms such as:



Seizures



Cerebral palsy



Learning disabilities



Feeding problems



Hearing loss



Vision problems

## Managing microcephaly

### Children with microcephaly could:

- have normal intelligence;
- have mild disability;
- severe learning disabilities;
- develop other neurological disorders.



There is no treatment to return a child's head back to normal.



Early intervention programmes aim to help maximise capabilities and minimise dysfunction.



123

[www.moh.gov.bn](http://www.moh.gov.bn)



## MICROCEPHALY

### 1. What is Microcephaly?

Microcephaly is a condition where a baby is born with a small head or the head stops growing after birth. Babies with microcephaly often have smaller brains that might not have developed properly. Microcephaly is a rare condition. One baby in several thousand is born with microcephaly. Microcephaly can be an isolated condition, meaning that it can occur with no other major birth defects, or it can occur in combination with other major birth defects.

### 2. What causes it?

The causes of microcephaly in most babies are unknown. Some babies have microcephaly because of changes in their genes or if the mother did not have enough food intake while pregnant (malnutrition). Babies may also be born with microcephaly if, during pregnancy, their mother abused drugs or alcohol, became infected with a cytomegalovirus, rubella (German measles), varicella (chicken pox) virus, or possibly Zika virus or if their mother was exposed to certain toxic chemicals or had untreated phenylketonuria (PKU, a harmful buildup of the amino acid phenylalanine in the blood). Microcephaly is associated with Down's syndrome, chromosomal syndromes and neurometabolic syndromes.

### 3. What are the signs and symptoms associated with it?

Many babies born with microcephaly may demonstrate no other symptoms at birth but go on to develop seizures, cerebral palsy, learning disabilities, feeding problems, hearing loss and vision problems. In some cases, children with microcephaly develop entirely normally.

### 4. How do you diagnose it?

Early diagnosis of microcephaly can sometimes be made by fetal ultrasound. Ultrasounds have the best diagnosis possibility if they are made at the end of the second trimester, around 28 weeks, or in the third trimester of pregnancy. Often diagnosis is made at birth or at a later stage. Babies should have their head circumference measured at least 24 hours after birth and compared with WHO growth standards.

### 5. Is there any treatment?

There is no treatment for microcephaly that can return a child's head to a normal size or shape. Early intervention with stimulation and play programmes may show positive impacts on development. Family counselling and support for parents is also extremely important. For more severe microcephaly, babies will need care and treatment focused on managing their other health problems (mentioned above) such as medications to control seizures.

**6. What is the prognosis?**

Some children with microcephaly will have normal intelligence and a head that will grow bigger, but they may track below the normal growth curves for head circumference. Some children may have only mild disability, while those with more severe cases may face significant learning disabilities, cognitive delays, or develop other neurological disorders.

**-E N D-**

Reference : KK/PR/3  
Date : 6 October 2016



سيان اخبار  
PRESS RELEASE

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SIARAN AKHBAR 

## ZIKA VIRUS DISEASE TRAVEL ADVISORY

1. The Ministry of Health would like to issue this clarification regarding the Zika virus travel advisory issued by the United States of America regarding travel to South-East Asia including Brunei Darussalam. The Zika virus surveillance program covering both government and private healthcare facilities routinely screen all suspected cases based on current WHO definitions and guidelines. Laboratory samples are also collected for confirmatory testing.
2. **No cases of Zika virus disease have been detected in Brunei Darussalam.** Despite this, the Ministry of Health continues to remain vigilant and has developed the '*Ministry of Health Preparedness Plan for the Prevention and Control of Zika Virus Disease*' to prepare for eventualities. In addition, all national preventive activities and capacity building to prevent, detect and control disease are overseen by the *Multisectoral Task Force for the Prevention and Control of Zika Virus Disease* comprising relevant government agencies including the Prime Minister's Office, Ministry of Development, Ministry of Communications, Ministry of Home Affairs and the National Disaster Management Centre, Ministry of Foreign Affairs and Trade, and the Ministry of Health.
3. Members of the public are advised not to panic in response to the travel advisory from the United States. Although Brunei Darussalam is currently Zika-free, as a country we need to maintain a heightened state of preparedness. The most effective preventive measure is by eradication of mosquito breeding sites. Environmental sanitation is important and we must make sure that we empty, clean and cover containers that can hold even small amounts of water, such as plastic containers, buckets, flower pots and tyres. Ensure also that all drains are clean, functioning properly and not blocked. All rubbish must be disposed of properly.
4. In addition to eradication of breeding sites through environmental sanitation, we can also take measures to prevent ourselves being bitten by mosquitoes. These include wear long, loose, light-colored clothing that covers the skin, using mosquito repellents, and avoiding being outside from in the early morning and late evening (unless necessary).
5. In line with World Health Organisation (WHO) guidance, the Ministry of Health do not advice on any travel or trade restrictions with the affected countries, or any screening or isolation of travelers at points of entry. Pregnant women are advised to avoid non-essential travel to Zika-affected areas. Also, if a pregnant woman or her spouse has recently travelled to a Zika-affected country, both partners should adopt safer sexual practices or abstinence for the entire pregnancy.
6. Individuals who have visited affected countries or are travelling from the affected countries, who subsequently develop symptoms such as fever, rash, conjunctivitis, headaches and muscle aches within 2 weeks of entry into Brunei Darussalam should be assessed at the nearest health facility.

7. The Ministry of Health and our relevant partner agencies will continue to monitor evolving events in collaboration with the World Health Organization (WHO), and our counterparts within ASEAN. We continue to remain vigilant and prepared and call upon all stakeholders including members of the public to participate fully in the national effort to prevent and control Zika virus infection through ensuring environmental sanitation. For further information on the Zika virus and mosquito-borne diseases, the public can visit the Ministry of Health website at [www.moh.gov.bn](http://www.moh.gov.bn) or call Talian Darussalam 123.

**-E N D-**

Reference : KK/PR/3  
Date : 30 September 2016



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PRESS RELEASE

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SIARAN AKHBAR 

## MOSQUITO-BORNE DISEASE: ZIKA VIRUS

1. The Ministry of Health takes note of the emerging situation in Sabah, Malaysia. On Saturday, 3 September 2016, the Ministry of Health Malaysia reported that a 61-year-old man in Likas, Sabah is believed to be the first locally transmitted Zika infection in the country.
2. The situation in the region continues to evolve and the geographical spread of Zika virus disease appears to be widening and has now affected our neighbouring countries, Singapore and Malaysia. Even though, there have been no reported cases of Zika Virus infections in Brunei Darussalam, the Ministry of Health continues to remain vigilant and to strengthen our capacity to prevent, detect and, control infection in the country and has developed the '*Ministry of Health Preparedness Plan for the Prevention and Control of Zika Virus Disease*' to prepare for eventualities.
3. Zika Virus infection is caused by a virus carried by the mosquito *Aedes Aegypti*, similar to dengue fever and chikungunya. The Aedes mosquito is routinely identified in tropical countries including Brunei Darussalam. The infection is transmitted from infected to healthy individuals primarily through the bite of the *Aedes* mosquito. There have also been reports of mother to child transmission during pregnancy and transmission via sexual contact
4. Most cases of Zika Virus infections do not show any signs or symptoms. However, a small percentage of patients may experience symptoms such as fever, muscle pain, joint pain, headache, conjunctivitis (red eye) and a rash. The infection is more risky for pregnant women as it can cause birth defects in the unborn child. Zika virus infection during pregnancy has been found to cause microcephaly (abnormally small-sized head) in babies and other severe fetal brain defects. Current research suggests that Guillain-Barre syndrome (GBS), an uncommon sickness of the nervous system, is strongly associated with Zika. However, only a small proportion of people with recent Zika virus infection get GBS. There is no specific treatment or vaccine for Zika Virus infection. Treatment is focused on supportive care for the alleviation of symptoms when deemed necessary.
5. Members of the public are advised not to panic in response to the latest situation from Malaysia. As a country, we need to engage fully where each and every individual must share responsibility in preventing outbreaks of Zika virus in Brunei Darussalam. The most effective way of doing this is by eradication of mosquito breeding sites. Environmental sanitation is important and we must make sure that we empty, clean and cover containers that can hold even small amounts of water, such as plastic containers, buckets, flower pots and tyres. Ensure also that all drains are clean, functioning properly and not blocked. All rubbish must be disposed of properly.

6. In addition to eradication of breeding sites through environmental sanitation, we can also take measures to prevent ourselves being bitten by mosquitoes. These include wearing long, loose, light-coloured clothing that covers the skin, using mosquito repellents, and avoiding being outside at dusk (early evening) or dawn (early morning), unless necessary.
7. Regarding travel restrictions, in line with World Health Organisation (WHO) guidance, the Ministry of Health do not advice on any travel or trade restrictions with the affected countries, or any screening or isolation of travelers at points of entry. Pregnant women are however advised to avoid non-essential travel to Zika-affected areas. Also, if a pregnant woman or her spouse has recently travelled to a Zika-affected country, both partners should adopt safer sexual practices or abstinence for the entire pregnancy.
8. It is important that individuals who have visited affected countries or are travelling from the affected countries, who subsequently develop symptoms such as fever, rash, conjunctivitis, headaches and muscle aches within 2 weeks of entry into Brunei Darussalam get assessed at the nearest health facility.
9. The Ministry of Health will continue to monitor evolving events in collaboration with the World Health Organization (WHO), and our counterparts within ASEAN. We continue to remain vigilant and prepared and call upon all stakeholders including members of the public to participate fully in the national effort to prevent and control Zika virus infection through ensuring environmental sanitation. For further information on the Zika virus and mosquito-borne diseases, the public can visit the Ministry of Health website at [www.moh.gov.bn](http://www.moh.gov.bn) or call Talian Darussalam 123

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Reference : KK/PR/3  
Date : 3 September 2016



كمنترين كصيحتن  
KEMENTERIAN KESIHATAN  
MINISTRY OF HEALTH

سيارن اخبار  
PRESS RELEASE SIARAN AKHBAR



كمنترين قмбаغونن  
KEMENTERIAN PEMBANGUNAN  
BRUNEI DARUSSALAM

## JOINT PRESS STATEMENT

### MINISTRY OF HEALTH AND MINISTRY OF DEVELOPMENT

#### ON

### MOSQUITO-BORNE DISEASE: ZIKA VIRUS

1. The Ministry of Health and the Ministry of Development of Brunei Darussalam wish to inform the public regarding the prevention of mosquito-borne diseases including the Zika virus infection.
2. Latin America and the Caribbean are the main regions that are affected by Zika, however, there are neighboring countries who are also affected by this disease. Alhamdulillah, thus far, there have been no reported cases of Zika Virus infections in Brunei Darussalam.
3. Zika Virus infection is caused by a virus carried by the *Aedes* mosquito. The *Aedes* mosquito is routinely identified in tropical countries including Brunei Darussalam. This species of mosquito often breed in containers that hold stagnant water including empty tins, drip-trays for flower pots, old tyres and rubbish left strewn about. Mosquito breeding increases many-fold after a rainy period. Typically, these mosquitoes are most active in the early morning and late afternoon.
4. The Ministry of Health and the Ministry of Development will continue to cooperate in implementing preventive and control measures against the *Aedes* mosquito. These measures include ensuring environmental sanitation, waste management and the use of insecticides (where appropriate) to control the adult mosquito population.
5. The aforementioned measures are useful but the most effective measure is for the public to eliminate all mosquito breeding sites. Members of the public should take the following measures:
  - Pour out water from the base of flower pots and replace the water inside the pots at least once a week. The insides of the flower pots should also be brushed to eliminate any mosquito larvae that stick to the walls of the pots.
  - Clean out clogged drains to ensure there is no stagnant water.
  - All containers that contain water such as bottles, cans, plastic containers and coconut shells must be planted or safely disposed in a covered trash bin.
  - Turn over or seal tightly all water storage that are no longer used such as buckets, barrels, etc.
  - Boats that are no longer used should be reversed so that water does not stagnate.
  - Do not leave old tyres abandoned and exposed to rain water. Puncture out the tyres to prevent water stagnation. A better measure is to remove the old tyres that are no longer used and send to landfills.



6. The support and cooperation of all stakeholders is vital. Members of the public must engage fully and share responsibility in taking preventive measures against mosquito breeding.
7. The Ministry of Health and the Ministry of Development will continue to work together to implement any necessary measures. For any questions about the Zika virus infection or any mosquito-borne disease, the public can visit the Ministry of Health website at [www.moh.gov.bn](http://www.moh.gov.bn) or call *Talian Darussalam 123*.

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Reference : KK/PR/3

Date : 26 Zulkaedah 1437H / 30 August 2016



## MOSQUITO-BORNE DISEASE: ZIKA VIRUS

1. The Ministry of Health Brunei Darussalam wish to update the public with regards to the recent mass media reports by the Republic of Singapore regarding 41 locally-transmitted cases of Zika virus, as confirmed by the Ministry of Health Republic of Singapore. The Ministry of Health Republic of Singapore also reported that 34 of these cases have fully recovered (*information obtained from joint press release by the Ministry of Health Singapore and National Environment Agency Singapore, 28 August 2016*).
2. Other affected countries with reported widespread transmission of Zika virus come mainly from Latin America and the Caribbean.
3. **Alhamdulillah, thus far, there have been no reported cases of Zika Virus infections in Brunei Darussalam.**
4. Zika Virus infection is caused by a virus carried by the mosquito *Aedes Aegypti*, similar to dengue fever and chikungunya. The *Aedes* mosquito is routinely identified in tropical countries including Brunei Darussalam.
5. Most cases of Zika Virus infections do not show any signs or symptoms. However, a small percentage of patients may experience symptoms such as fever, muscle pain, joint pain, headache, conjunctivitis (red eye) and rash. The infection may also be associated with neurological symptoms and microcephaly in newborns.
6. There is no specific treatment or vaccine for Zika Virus infection. Treatment is focused on supportive care for the alleviation of symptoms when deemed necessary.
7. The Zika Virus belongs to the Flavivirus genus in the Flaviviridae family. It is transmitted from infected to healthy individuals through the bite of the *Aedes* mosquito. Additionally, there is a small risk of transmission through sexual contact.
8. Entomological (insect) surveillance has indicated the presence of a native population of *Aedes* mosquito in Brunei Darussalam. This species of mosquito often breed in containers that can hold water such as empty tins, drip-trays for flower pots, old tyres and rubbish left strewn about. It has been found that the breeding of these mosquitoes will increase many-fold after a rainy season. Typically, they are most active in the early morning and late afternoon.
9. The Ministry of Health continues to implement measures for monitoring, prevention and control, including conducting entomological surveillance and vector control. Given the ongoing situation in Singapore and the extensive travel between Singapore and Brunei Darussalam, there is a small risk of importation of the virus through an infected individual into the country. Brunei Darussalam's preparedness to manage imported cases of Zika virus is based on strengthening our capacity to prevent cases, detect cases early and control transmission to prevent an outbreak. This is aligned with the core principles of the

International Health Regulations (IHR 2005). Ongoing risk assessment of the emerging situation continues and clear guidelines are in place to ensure that we are prepared to handle introduction of the virus.

10. The support and cooperation of all stakeholders is vital. Members of the public must engage fully and share responsibility in preventing outbreaks of Zika virus in Brunei Darussalam by taking preventative measures against mosquito breeding such as:
  - Destroying places where mosquitoes breed and to spend about 10-30 minutes, at least once a week, checking your residence or building, to ensure that the surroundings are free from places where mosquitoes can breed.
  - Ensure that all drains are clean, functioning properly and not blocked.
  - Ensure that all rubbish are disposed of properly and there are none left over that can collect and hold water.
  - Wear long-sleeved clothing and long trousers and avoid wearing dark coloured clothing as dark colours will attract mosquitoes.
  - Use insecticide sprays, mosquito coils or electronic mosquito repellent.
  - Use insect repellent especially for outdoor activities as needed.
11. In addition, travellers to affected countries, especially pregnant women, are advised to take all precautionary measures such as described above.
12. At this time, the World Health Organisation (WHO) do not advise any travel or trade restrictions with the affected countries, or any screening or isolation of travelers at points of entry. It is however, important that individuals who have visited affected countries or are travelling from the affected countries, who subsequently develop symptoms, are advised to get assessed at the nearest health facility.
13. The Ministry of Health will continue to monitor evolving events in collaboration with the World Health Organization (WHO) and will implement any necessary measures, including informing the public of any further developments. For further information questions on the Zika virus and mosquito-borne diseases, the public can visit the Ministry of Health website at [www.moh.gov.bn](http://www.moh.gov.bn) or call *Talian Darussalam 123*.

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Reference: KK/PR/3

Date : 25 Zulkaedah 1437H / 29 August 2016