

# **Prevention of Zika Virus Infection**

**September 2025**

# What is Zika virus infection?

## Causative agent

- Zika virus infection is a mosquito-borne disease caused by Zika virus

# Mode of Transmission – Mosquito Bites

- Zika virus is primarily transmitted to humans through the bite of an infected *Aedes* mosquito

# Vectors – *Aedes* mosquito

- *Aedes aegypti*, which is currently not found in Hong Kong, is considered the most important vector
- Other *Aedes* mosquito species such as *Aedes albopictus*, which is commonly found in Hong Kong, are also considered as potential vectors

# Other modes of transmission

- Zika virus can also be transmitted from mother to fetus during pregnancy, as well as through sexual contact, transfusion of blood and blood products, and organ transplantation



# Symptoms

- Most people infected with Zika virus infection are asymptomatic

## Incubation period

- The incubation period of Zika virus infection ranges from 3 – 14 days

# Symptoms

- Skin rash, fever, conjunctivitis, muscle or joint pain, malaise and headache
- Generally mild and usually last for 2 – 7 days



# How Zika is diagnosed?

- Medical advice should be sought
- With compatible epidemiological and clinical history, clinicians could liaise with the CHP's Public Health Laboratory Services Branch for consideration of Zika virus testing



# Assess test result

- Interpretation of test result needs to be made with liaison between the attending clinician and the microbiologist, based on epidemiological and clinical history, and the relative timing of exposure, symptom onset and presentation to medical care

# Major concern

- Zika virus infection during pregnancy is a cause of microcephaly and other congenital malformations in the infant. Congenital malformations can occur following both symptomatic and asymptomatic infection
- Zika infection in pregnancy can also cause complications such as fetal loss, stillbirth and preterm birth
- Zika virus infection can also cause Guillain-Barré syndrome, neuropathy and myelitis

# What is microcephaly?

- Microcephaly is a rare condition where a baby has an abnormally small head

## 小頭症和寨卡病毒 Microcephaly and Zika virus



小頭症是指嬰兒的頭部不正常地小於其他相同年齡和性別的嬰兒頭部  
Microcephaly is a condition where a baby's head is much smaller compared with other babies of the same age and sex

### 成因 Causes

小頭症的成因很多，但大部分成因不明，其中包括：  
The causes of microcephaly are diverse and in most babies unknown, e.g.

- 母親在懷孕期間感染寨卡病毒  
Zika virus infection during pregnancy
- 染色體或基因異常  
Abnormalities with chromosomes or genes
- 腦部在出生前和出生後受損  
Damage to the brain before and after birth



### 後果 Consequences

患者可能會出現以下問題：  
Babies with microcephaly may have the following problems:

- 癲癇  
Epilepsy
- 發展延緩，例如影響言語、坐、站和行走的發展  
Developmental delay, such as problems with speech, sitting, standing and walking
- 智力障礙，例如日常生活的學習和適應能力下降  
Intellectual disability, such as decreased ability to learn and function in daily life
- 身體活動和平衡的問題  
Problems with movement and balance
- 進食的問題，例如吞嚥困難  
Feeding problems, such as difficulty swallowing
- 失聰  
Hearing loss
- 視障  
Visual impairment



### 預防 寨卡病毒感染 Prevention of Zika virus infection

由於小頭症的後果嚴重並可影響整個家庭，因此，請採取以下預防方法：  
The consequences of microcephaly could be severe affecting the entire family, please observe the following preventive measures:

- 懷孕婦女如前往傳播活躍地區應加倍留意感染風險。  
Pregnant women should pay close attention to the infection risk if they travel to areas with active transmission.
- 必須前往傳播活躍地區的人士，出發前應徵詢醫生的意見。旅途中，應考慮避免發生性行為，否則應使用安全套，並時時採取防蚊措施。  
Those people who must travel to areas with active transmission should seek medical advice before the trip, consider not having sex during travel or else condom should be used, strictly follow steps to avoid mosquito bites during the trip.
- 男性及女性外遊人士從傳播活躍地區返港後，應分別至少3個月及至少2個月內避免發生性行為，否則應使用安全套。  
Male and female travellers should abstain from sex for at least 3 months and at least 2 months respectively after returning from areas with active transmission, or else condom should be used.
- 孕婦應避免與曾到訪傳播活躍地區的伴侶發生性行為，否則應在整個懷孕期間使用安全套。  
Pregnant women should not have sex with their partner who had travelled to areas with active transmission, or else condom should be used throughout the pregnancy.

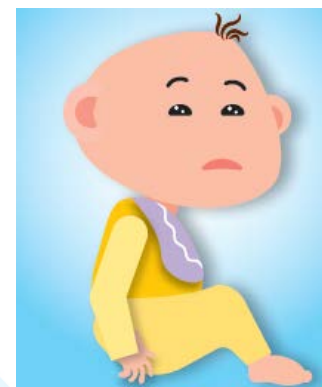


# Causes of microcephaly

- Due to abnormal brain development of the baby in the womb or the brain has stopped growing after birth
- Babies and children with microcephaly often have challenges with their brain development as they grow older

# Other possible causes of microcephaly

- Microcephaly can be caused by a variety of environmental and genetic factors, e.g.:
  - Down's syndrome
  - Exposure to drugs, alcohol or other toxins in the womb; and
  - Rubella infection during pregnancy



# What is Gullain-Barré Syndrome?

- A rare neurological disorder causing paralysis and even respiratory difficulties

# Any drug treatment for Zika virus infection?

- There is **no** specific antiviral treatment for Zika virus infection

# Symptomatic relief

- Treatment is directed primarily at relieving the symptoms, including using anti-pyretics, analgesics and replacement of fluids.
- Aspirin and other nonsteroidal anti-inflammatory drugs should be avoided until dengue fever is ruled out because of bleeding risk



# Is effective vaccine available to prevent Zika virus infection?

- At present, there is **no** vaccine available against Zika virus infection

# The most effective measures for prevention of Zika virus infection

- Keep the environment clean
- Prevent accumulation of stagnant water
- Control vectors and reservoir of the diseases



# The most effective measures for prevention of Zika virus infection

- Prevent mosquito bites
- Take precautions to prevent sexual transmission



# General protection

- Wear loose, light-coloured, long-sleeved tops and trousers
- Use DEET-containing insect repellent on exposed parts of the body and clothing
  - Pregnant women and children of 6 months or older can use DEET-containing insect repellent



# What is DEET?

- Used as the active ingredient in many insect repellents
- Insect repellents that contain DEET offer the best protection against mosquito bites

# Forms of insect repellents that contain DEET

- Liquids, lotions, aerosols / sprays and impregnated materials (e.g. stickers, wristbands)



# DEET Concentration

- Formulation with concentration of 20% or more of DEET can provide the best and longer protection against *Aedes* mosquitoes
- Products with higher concentration mainly provide longer-lasting protection but do not offer other additional protection against mosquito bites
- The protection from plant-derived repellents, in general, is shorter

## Side effects

- In rare occasions that it will cause skin irritation
- Some persons who used products containing a high concentration of DEET or who were exposed to excessive amounts of DEET have experienced skin rashes, blisters, and skin and mucous membrane irritation



# Tips for using insect repellents

- Apply DEET containing insect repellents to exposed parts of the body and clothing in accordance with label instructions and precautions
- Avoid sensitive, sunburned or damaged skin
- Do not apply near eyes and mouth

# Tips for using insect repellents

- If use both sunscreen and DEET-containing insect repellent at the same time, apply sunscreen first and then insect repellent on top
- In hot or humid climate or when there is sweating, repeated applications may be required. Follow product label instructions regarding protection time and the need for re-application

# For more details on tips for using insect repellents

- For children who travel to countries or areas where mosquito-borne diseases are endemic or epidemic and where exposure is likely, children aged 2 months or above can use DEET-containing insect repellents with a concentration of DEET up to 30%
- For more details about the use of insect repellents and the key points to be observed, please refer to:

<https://www.chp.gov.hk/en/features/38927.html>

# Other preventive measures

- Avoid using fragrant cosmetics or skin care products

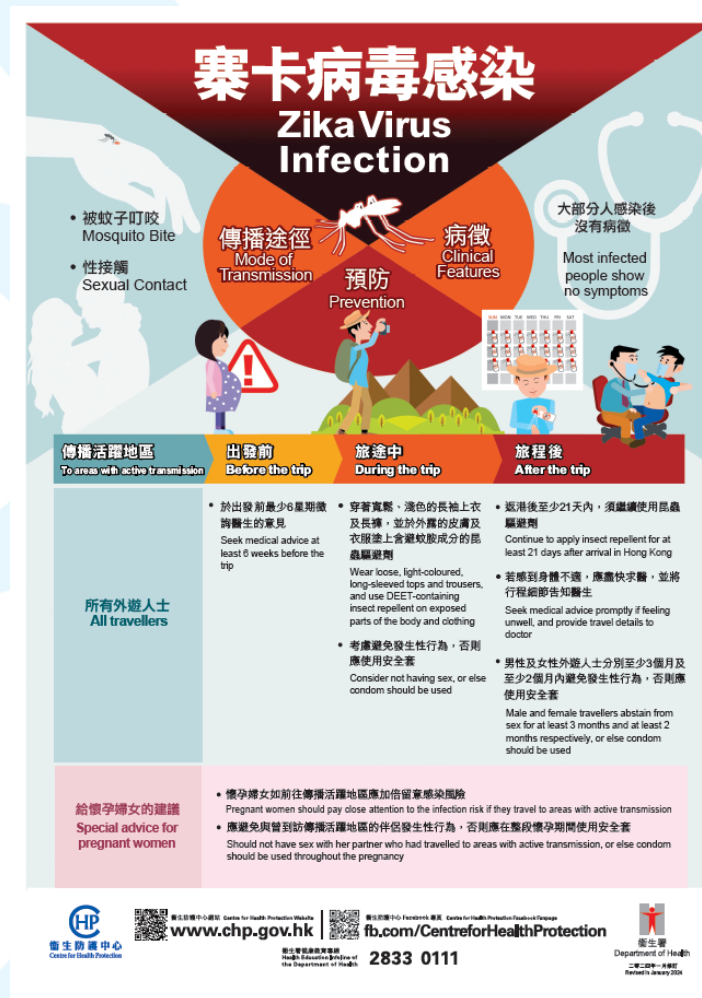
# Special notes when travelling abroad

- If going to areas of [active Zika virus transmission](#), especially for persons with immune disorders or severe chronic illnesses and women planning to conceive or their male sexual partners, arrange a consultation with a doctor at least 6 weeks before the trip, and have extra preventive measures to avoid mosquito bites
- If travelling in rural areas of active Zika virus transmission, carry a portable bed net and apply permethrin (an insecticide) on it. Permethrin should NOT be applied to the skin. Seek medical attention promptly if feeling unwell



# Return from areas of active transmission...

- Travellers returning from areas of active transmission should apply insect repellent for **at least 3 weeks** after arrival in Hong Kong
- If feeling unwell e.g. having a fever, the person should seek medical advice promptly, and provide travel details to the doctor



# Prevention of sexual transmission

- All travellers should practice safer sex (including correct and consistent use of condoms) or abstain from sexual activity during travel to areas of active transmission
- Male and female travellers returning from areas of active transmission should practice safer sex or abstinence for at least 3 months and 2 months respectively upon return

# Special notes for pregnant women

- Pregnant women should **pay close attention** to the infection risk if they travel to areas with active transmission and strictly follow recommendations to prevent mosquito bites and sexual transmission during travel.
- Pregnant women are advised to use DEET-containing insect repellent during travel to areas with active transmission



# Pregnant women are advised to

- Attend antenatal follow up regularly and inform the attending doctor about recent travel history
- Observe for symptoms of Zika virus infection and **seek medical advice** as soon as possible if feeling unwell
- Sexual partners of pregnant women living in or returning from areas of active transmission should practice safer sex or abstain from sexual activity throughout pregnancy

# Benefits of adopting preventive measures

- Preventing mosquito bites will protect people from Zika virus, as well as other diseases that are transmitted by mosquitoes, e.g.
  - Dengue, chikungunya and yellow fever

# Zika virus infection – more information

- Please visit the Centre for Health Protection website

<https://www.chp.gov.hk/en/features/43086.html>

# Centre for Health Protection website



Thematic Website

## 寨卡病毒感染



2025年9月15日

### 寨卡病毒感染是小頭畸形和吉巴氏綜合症的成因

寨卡病毒感染是一種由寨卡病毒引起的蚊傳疾病。大部分寨卡病毒感染並沒有病徵。如有病徵，病人通常出現皮疹、發燒、結膜炎、肌肉和關節疼痛、疲累和頭痛。

懷孕期間感染寨卡病毒是造成初生嬰兒出現小頭症和其他先天性缺陷的原因之一。先天性缺陷可在有症狀和無症狀感染後發生。懷孕期間感染寨卡病毒也可引起併發症，如胎兒流產、死產和早產。

寨卡病毒感染還可能導致吉巴氏綜合症、神經病變和脊髓炎。

寨卡病毒主要透過受到感染的伊蚊叮咬而傳染給人類。本港現時沒有發現主要傳播寨卡病毒的埃及伊蚊。其他種類的伊蚊如白紋伊蚊亦被視為可能的病媒，而白紋伊蚊屬於本地常見的蚊品種。

寨卡病毒亦可能在懷孕期間從母親傳播給胎兒，以及通過性接觸、輸血和血液製品，以及器官移植傳播。



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