

Silent threat of Zika

Zika arrives

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ZIKA, linked to under developed brains in children, has caused panic in 23 countries and territories in the Americas and across Asia.

Infectious diseases specialists have urged the World Health Organisation to take urgent action to curb the spread of the virus, which they say has "explosive pandemic potential". Malaysia too has sounded the alarm.

Malay Mail's EMMANUEL SANTA MARIA CHIN and JASMINE ANDRIA gathered some answers about the disease.

What is the Zika virus?

It is a mosquito-transmitted infection related to dengue, yellow fever and West Nile virus. Although it was discovered in monkeys in Uganda's Zika forest in 1947, the first human case was in Nigeria in 1954. For decades, it did not appear to pose much of a threat to people and was largely ignored by the scientific community. Common in Africa and Asia, it did not begin spreading widely in the Western Hemisphere until last May, when an outbreak occurred in Brazil.

TRANSMISSION CYCLE

Symptoms

- Fever
- Rash
- Joint pain
- Conjunctivitis (red eyes)



Person infected with Zika virus



Possible transmission from mother to baby during pregnancy



Infected mosquito bites another person and transmits virus



Aedes mosquito bites infected person

How is the virus spread?

It is spread by Aedes mosquitoes, which can breed in a pool of water as small as a bottle cap and usually bite during the day.

The aggressive yellow fever mosquitoes, *Aedes aegypti*, have spread most Zika cases.

How does Zika cause brain damage in infants?

Scientists do not fully understand the connection. The possibility the virus causes microcephaly, unusually small heads and undeveloped brains, emerged in October when doctors in northern Brazil noticed a surge in babies with the condition.

How common has microcephaly become in Brazil's outbreak?

About three million babies are born in Brazil each year. Normally, about 150 cases of microcephaly are reported, and Brazil says it is investigating nearly 4,000 cases.

How do people know if they have been infected?

It is often a silent infection, and hard to diagnose.

Until recently, Zika was not considered a major threat because its symptoms are relatively mild. Only one in five infected people develop symptoms, which can include fever, rash, joint pain and red eyes. Those infected usually do not have to be hospitalised.

Why isn't there a widely available test for the infection?

Because it is closely related to dengue and yellow fever, it may cross-react with antibody tests for those viruses. To detect Zika, a blood or tissue sample from the first week of the infection must be sent to an advanced laboratory so the virus can be detected through sophisticated molecular testing.

Is there treatment?

No. Scientists do not recommend a particular antiviral medication for infected people. The symptoms are mild, if they appear at all, and usually require only rest, nourishment and supportive care.

How should people protect themselves?

Protection is difficult in mosquito-infested regions. There is no vaccine. Efforts to make one have just begun, and creating and testing a vaccine normally take years and cost hundreds of millions of dollars.

If the Zika virus has been in Africa and Asia for decades, why wasn't the microcephaly problem detected earlier?

Until now, the virus never struck such a large population without immunity.

Microcephaly is rare, and it has many other causes, including infection of the

foetus with rubella (German measles), cytomegalovirus or toxoplasmosis (cat-litter disease), poisoning of the foetus by alcohol, mercury or radiation, or severe maternal malnutrition and diabetes. It is also caused by several gene mutations, including Down's Syndrome.

Why did health officials pay little attention to the virus?

It circulated in the same regions as dengue and chikungunya, and compared with those two painful infections, nicknamed "break-bone fever" and "bending-up fever", Zika was usually mild.

When did the Southeast Asian strain emerge?

The virus is thought to have reached Asia from Africa at least 50 years ago. In 2007, a Southeast Asian strain of the virus began spreading to the South Pacific, sparking rapid outbreaks on islands where no one had immunity to it.

Is there evidence of Zika in Malaysia?

Zika was detected in *Aedes aegypti* mosquitoes in Peninsular Malaysia in 1969. In 2001, Zika seropositivity was demonstrated in a native Bornean, two migrants to Borneo, and two Bornean orangutan (*Pongo pygmaeus*). A later study found an additional eight Bornean orangutan to be seropositive for antibodies

against Zika. Thus, in Borneo, either the virus only rarely infects humans or the disease is mistaken for dengue fever. A letter published by US Centres for Disease Control and Prevention ("Acute Zika virus infection after travel to Malaysian Borneo, September 2014"), stated a 45-year-old woman who returned from Sabah in 2014 after a three-week vacation started experiencing fever and maculopapular rash on her arms and legs. She was found infected with acute Zika virus. On Thursday, the Health Ministry announced the first Zika case in Malaysia, a 58-year-old woman in Bandar Botanic in Klang.

How do you fight the virus?

The only way to fight Zika is to clear stagnant water where mosquitoes breed, and protect against mosquito bites.

WHAT DOES ZIKA DO TO YOU?

Zika can cause neurological disorder. A number of Zika patients in Brazil have also developed a rare autoimmune condition called Guillain-Barré syndrome, which can cause at least temporary paralysis. Most patients recover after a few weeks, but if the paralysis affects breathing it can be fatal.