



A National Environment Agency (NEA) red zone banner showing 100 or more dengue cases in a neighbourhood. People are advised to remove stagnant water from their homes using the NEA's five-step Mozzie Wipeout. PHOTO: LIANHE ZAOBAO

What are the warning signs of severe dengue infection?

Look out for bleeding in gums or nose, blood in urine, persistent vomiting

Timothy Goh
Health Correspondent

The nation has seen more than 16,000 cases of dengue so far this year, and weekly cases are expected to rise. As Singapore enters the traditional peak dengue season from June to October, The Straits Times spoke with Dr Chia Po Ying, consultant at the National Centre for Infectious Diseases (NCID), to find out what you need to know about dengue.

Q What are some warning signs my dengue infection may become severe? Can you get dehydrated from dengue?

A The warning signs of severe dengue include bleeding in the gums or nose, blood in urine or stools, heavy menstrual bleeding, severe abdominal pain, persistent vomiting to the point that the patient cannot keep fluids down, lethargy or change in alertness, and breathlessness.

Other things to watch out for include giddiness when standing or sitting up, decreased urine output, and a poor appetite.

A few warning signs, such as liver enlargement and an increase in blood concentration, can be detected only through a medical examination or blood tests.

Dengue patients can suffer dehydration due to poor appetite or vomiting, or diarrhoea in some cases.

Q Are some groups of people more likely to have severe dengue infection?

A Yes. They include those who are infected for the second time, or who have co-morbidities such as hypertension and diabetes.

Q How can I tell if I have dengue or Covid-19 based on my symptoms?

A The symptoms of dengue include fever, headache, muscle and joint aches, rashes, vomiting, easy bruising, nausea and mild bleeding from the nose or gums.

While Covid-19 symptoms include fever and may vary in severity, there tend to be more respiratory symptoms such as shortness of breath, cough, runny nose, sore

throat and loss of smell or taste.

Diagnostic tests are available for both illnesses. Dengue is confirmed through a blood test, while Covid-19 infection can be confirmed through an antigen rapid test or polymerase chain reaction test.

Q Do seniors have different symptoms when infected?

A The elderly may have less aches and pains, and may present with just tiredness, sometimes accompanied by a decrease in appetite. This makes it more challenging to diagnose dengue early and to manage it well.

Q When should I see a doctor for dengue? Will I automatically be sent to the hospital?

A You should see a doctor immediately if you suspect you have dengue. This allows for early diagnosis, as well as appropriate monitoring and supportive care if needed.

It is important to consult your doctor early to manage dengue symptoms and reduce severity of the disease. After dengue infection is confirmed through a blood test, you can then be given specific advice on what to watch out for.

While you will have to go for regular blood tests as a follow-up, you will not automatically be sent to the hospital as a majority of dengue patients can be managed safely as outpatients.

Q Should the public be concerned about dengue?

A Yes. We have severe dengue cases and dengue deaths, some of which were among young adults who sought medical help late and came in very ill.

Q Is there a vaccine for dengue, and if so, who should get it?

A While there may be new vaccines approved in the next few years, Dengvaxia is currently the only dengue vaccine commercially available in the world, and is approved by Singapore's Health Sciences Authority for those aged 12 to 45 years old.

It should not be given to those with no previous dengue infection, and people may need to be screened before getting their jab.

Those interested should discuss with their doctors the option of getting vaccinated, to see if they are eligible and would benefit from it.

Q Is NCID trialling any drugs to treat dengue itself, rather than its symptoms?

A There are currently no antivirals validated for the treatment of dengue. NCID is looking at new an-

tivirals that will target the dengue virus itself, and is also examining drugs which may potentially target excess inflammatory response and protect the heart during infection.

Dengue can be transmitted from an infected individual during the early stage of the illness when the virus is present in his blood, to a mosquito, and then to another human.

Therefore, aside from reducing the severity or shortening the duration of symptoms, antivirals could also potentially decrease the amount of virus present in a patient's blood, and thus reduce the chances of mosquitoes picking up the virus from the patient and transmitting it to other people.

Q In the absence of vaccines, what can we do to protect ourselves from dengue?

A People should remove stagnant water from their homes using the National Environment Agency's five-step Mozzie Wipeout.

They can also clean mosquito-breeding spots such as roof gutters and flowerpots regularly, apply insect repellent, and take precautions such as wearing long sleeves and pants when travelling to areas where dengue fever is common.

timogh@sph.com.sg

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NDP rehearsal: 16 bus services affected

Sixteen bus services will be affected this Saturday due to road closures for a National Day Parade (NDP) rehearsal.

They are SMRT services 75, 960 and 960E; SBS Transit services 56, 70M, 111, 133, 162M, 195 and 502; Tower Transit services 77, 97, 106 and 857; and Go-Ahead Singapore services 36 and 518.

SMRT said in a statement on

Tuesday that its bus services would not stop at two bus stops in Raffles Avenue.

Both SBS Transit and Tower Transit said on their websites that their respective bus services would skip 11 bus stops in Raffles Avenue, Bayfront Avenue, Central Boulevard and Marina Boulevard.

Go-Ahead Singapore said its

services would skip bus stops in Bayfront Avenue, Raffles Avenue and Temasek Avenue.

All four operators said their bus services would be affected from 7.30am to 10.30pm on Saturday.

This year's National Day Parade will be held at the Marina Bay floating platform and will be open to the public, for the first time in two years.

THE STRAITS TIMES
ONLINE MASTERCLASS
CYBERSECURITY

Worried about security when you go online or want to mitigate the risks? Get tips and tricks to keep your virtual self secure.

Who should attend:

- Executives keen to understand the role of cybersecurity in business.
- Professionals (such as lawyers, doctors and accountants) who want to know the key elements of IT security.
- Individuals who need to protect their privacy and data.
- Tertiary students who want to be more IT-savvy.
- Anyone who wants to know how to keep safe online.

What the course covers:

- Getting the best from your browser.
- Types of scams, malware and attacks.
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- Social engineering scams.
- Virtual Private Network – do you need one?

In this course, participants will glean practical tips on:

- How to check if a computer has been compromised.
- How to block malware and set strong authentication.
- How to secure a home's Wi-Fi system and prevent unauthorised access.
- How to handle e-mail messages from hell and love scams.
- How to protect oneself from social engineering hacks.

Dates: July 12, Sept 14, Nov 17

Time: 10am to 12noon and 2 to 4pm (4 hours)

Fee: \$180 a participant

The session will be conducted via Zoom

The coach
Mr Raju Chellam is a published author, cybersecurity researcher and chief editor of the AI Ethics & Governance Body of Knowledge, an initiative by the Singapore Computer Society and the Infocomm Media Development Authority. His book, Organ Gold, published by Straits Times Press, is on the illegal trade in human organs on the Dark Web. His monthly columns on cybersecurity ran in The Straits Times from January 2019 to October last year. He is a Fellow of the Singapore Computer Society and Fellow of Advanced Computing for Executives at the National University of Singapore.

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