

Dengue fever is making inroads in Europe

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Cases of the mosquito-borne illness dengue are typically seen in the tropics, but with the changing climate that may be changing.



Doctors from the United Kingdom and France are scheduled to present a <u>case study</u> at a meeting of a European medical association about a British woman who contracted dengue in September on a trip to Nice, France.

The woman, aged 44, had fevers, headache behind the eyes, muscle pain and a blanching, widespread erythematous rash for about three days before she sought medical attention.

She had returned to the United Kingdom the day before her symptoms started after visiting family in the south of France. The family she had been staying with had all been unwell with the same symptoms.

At an <u>emergency department</u> in the United Kingdom, doctors sent an urgent sample to the U.K.'s Rare Imported Pathogens Laboratory (RIPL).

Testing confirmed the woman had acute dengue virus infection.

"This individual was part of an outbreak of over 30 locally transmitted cases in the south of France in 2022, which highlights the rapidly changing epidemiology of dengue," said study author <u>Dr. Owain Donnelly</u> from the Hospital for Tropical Diseases, in London.
"Surveillance and reporting mechanisms are important in ensuring we have an accurate understanding of dengue spread."

Donnelly said a combination of several forces make more outbreaks likely.

"With <u>climate change</u>, particularly hotter temperatures and more rainfall, and increasing <u>global trade</u> and tourism, we may see more parts of Europe with the right combination of factors for dengue outbreaks," he said in a news release from the European Congress of Clinical



Microbiology & Infectious Diseases.

In this case, the patient did not need any medical treatment and was monitored as an outpatient.

Dengue is typically spread by the *Aedes* mosquito. Usually, U.K. cases involve people who have visited Asia, South America and Africa.

About 75% of cases are asymptomatic and go undetected. About 1% to 5% of patients develop potentially fatal severe dengue or dengue hemorrhagic fever, the study authors noted.

Historically, the virus was transmitted by species of mosquitos (*Aedes aegypti* and *Aedes albopictus*) found only in the tropics. With climate change, the Asian tiger mosquito (*Aedes albopictus*) has been identified throughout southern Europe, according to the case report.

French health authorities reported three outbreaks of the virus between June and September 2022, involving infections contracted on national territory. The disease is transmitted via mosquito bite and is not spread from person to person.

Authorities have detected the Asian tiger mosquito at U.K. ports multiple times over the past few years. But no <u>local populations</u> have established in the United Kingdom.

"To ensure accurate diagnosis, physicians should consider testing for dengue if patients live in or have visited countries where *Aedes albopictus* is found, and present with the typical constellation of symptoms, even if dengue is not widespread," Donnelly said. "Making the correct diagnosis not only has an impact on patients, but also allows us to increase our understanding of dengue distribution and take appropriate steps to control outbreaks."



The case study is scheduled to be presented at a meeting of the <u>European Congress of Clinical Microbiology & Infectious Diseases</u>, held April 15 to 18 in Copenhagen, Denmark.

Findings presented at medical meetings should be considered preliminary until published in a peer-reviewed journal.

More information: The World Health Organization has more on <u>dengue</u>.

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