

Are you at risk for dengue? Are Miami mosquitoes a danger? Here are the warning signs

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No one likes mosquito season. And some of these bloodsuckers can be more than just a nuisance. Mosquitoes can transmit disease.

Health officials are now focusing on [dengue fever](#), with reports on the rise and new cases confirmed in the Florida Keys. Over 250 cases have been reported in the state so far this year, more than double this time last year.

"It's concerning," said Dr. Paola Lichtenberger, a tropical disease expert and professor of medicine at the University of Miami. "It will not turn on all the red alerts yet, but it definitely raised a huge red flag."

Lichtenberger isn't the only one raising red flags. The CDC issued an "alert for increased risk of [dengue](#) virus infections in the United States" on June 25. The Florida Department of Health declared a Mosquito Borne Illness Alert for dengue in the Florida Keys. And Miami-Dade County has been under the alert since last year .

Here's what to know about dengue fever in South Florida.

What is dengue fever?

- Dengue fever is a viral, mosquito-borne, infection found in tropical and subtropical regions across the world. Each year, dengue is responsible for an estimated 100 million to 400 million infections, according to the World Health Organization.
- Dengue infections often come without symptoms. Only about 1 in 4 people infected with dengue will become sick, according to the CDC. But dengue can lead to a severe infection, and can even kill you.

What are the symptoms of dengue fever?

- The most common initial symptom of dengue is fever, sometimes with vomiting, [muscle pain](#), [joint pain](#) behind the

eyes, and a rash.

- Symptoms usually appear 7 to 10 days after an infection and typically last two to seven days.
- More serious symptoms of dengue can appear 24 to 48 hours after the fever ends. Only about 1 in 20 people who experience symptoms will develop a serious infection.
- Symptoms of severe dengue infection include abdominal pain, repeat vomiting, bleeding from the nose or gums, bloody vomit or stool, and extreme fatigue or restlessness, according to the CDC.

People previously infected with dengue are at higher risk of developing a severe case, Lichtenberger said. This is because there are actually four types of dengue.

"If you get [one type of] dengue, you will never get [that same type] again," she explained. However, if you get a different type of dengue, your immune system "will have an extra huge over-response to that dengue, without killing it properly. That's when severe dengue happens."

Is there a treatment for dengue fever?

There is no specific treatment for dengue fever.

If you develop dengue symptoms, rest and drink water. You can take acetaminophen (Tylenol) to help manage the pain, but don't take ibuprofen (Advil) or aspirin because they may cause bleeding in more severe cases.

If your dengue symptoms become more severe, seek emergency medical attention.

There is a vaccine to prevent severe dengue, but it's only available for

kids ages 9 through 16 who have a documented previous case of dengue and live in an area where the disease is common.

How does dengue spread?

Dengue is spread by the bite of the female aedes mosquito, usually the aedes aegypti, according to the CDC. Unlike COVID or the common cold, it cannot be spread through saliva or skin contact. "You need the blood contact," said Lichtenberger, an expert in tropical diseases.

The aedes mosquito has adapted to human schedules, often feeding during the day, unlike other mosquito species. In addition, Lichtenberger called it "a city kid" because it often lives near human-populated areas.

Aedes aegypti can also bite multiple people during one feeding. While most other mosquitoes prefer to bite a single person or animal per feeding, the aedes move from person to person, biting and spreading diseases like Zika, Chikungunya and dengue.

How do I avoid dengue fever?

The best way to avoid dengue is to avoid getting mosquito bites.

Miami-Dade Mosquito Control is monitoring its network of "more than 320 mosquito traps" to track the aedes. The division also offers several suggestions for avoiding [mosquito bites](#).

Mosquitoes breed in standing water, so Mosquito Control recommends limiting standing water around your home. This means emptying garbage cans, buckets, pots, gutters, even plants with water-holding leaves such as bromeliads. It also means emptying pools when they're not being used.

The division also "highly recommends residents to use a mosquito repellent containing DEET, picaridin, oil of lemon eucalyptus, or IR-3535 when venturing outdoors."

"Make sure that whenever [you're] applying repellent it has to be more than 20% DEET," warned Lichtenberger, adding that bug-spray should always be applied after sunscreen, otherwise the sunscreen might disable the repellent.

How did dengue get to the U.S.?

Dengue is endemic to many countries, especially in Central and South America, meaning that the disease is constantly present. In the U.S., types of dengue cases can be broken down into two categories:

The first is called "travel-associated" cases.

"It's not that the mosquito travels in the airplane," said Lichtenberger. Instead, travel-associated cases involve people who develop symptoms after having recently traveled to a place where dengue fever is common and were infected there.

The second is called "local-associated" cases.

In these cases, the person testing positive for dengue has not traveled abroad recently, and was likely infected in the U.S. It is these local cases that are most worrying to doctors. Most mosquitoes can only fly about one to three miles, according to the American Mosquito Control Association, so local cases mean that there are infected mosquitoes transmitting the disease in the U.S.

Dengue in Florida and abroad

Though dengue and other mosquito-borne illnesses are often present in Florida, the level of urgency varies.

Some counties, including Hillsborough, Nassau, Holmes and Pasco, are under a "mosquito-borne illness advisory" from the Florida Health Department. This is the third-highest warning level offered by the state Health Department, and corresponds with a single "locally acquired" case in the county. The advisory in Hillsborough County is for dengue fever. The advisories in Pasco, Nassau and Holmes counties are for eastern equine encephalitis, a different mosquito-borne illness.

Miami-Dade and Monroe are under a "mosquito-borne illness alert," the second-highest warning level, declared when more than one locally acquired case is confirmed. There have been six confirmed locally acquired cases in Miami-Dade this year, constituting the majority of the local cases in Florida, and two in Monroe.

As of June 29, there have been 244 "travel associated" cases reported in Florida this year, including 104 in Miami-Dade and 39 in Broward, according to the Florida Department of Health. This number is much higher than this time in 2023 or 2022, and it likely "reflects the dengue activity in Latin America," Lichtenberger said.

Brazil is in the midst of a historic dengue outbreak, with over six million suspected cases, according to the World Health Organization, and 57 of Florida's travel-associated cases have been connected to that outbreak. Argentina, Peru and Paraguay also all have suspected cases in the hundreds of thousands.

As of June 29, Florida has recorded 10 reports of "locally acquired" cases in 2024. Six of those cases have been in Miami-Dade, two in Monroe, and one each in Pasco and Hillsborough counties.

Ten cases "is a lot for us," said Lichtenberger, "especially because it's just the beginning" of the summer.

Is dengue in Florida normal?

Dengue cases in Florida aren't rare, especially given Florida's climate and connections to Latin America. Cases have been trending upward since 2017, and although the number dipped during COVID, it rose again in 2022 and has stayed lofty since.

In fact, for this time of year, dengue fever numbers are at the highest they have been in the last decade, for both travel and locally associated cases.

Lichtenberger suggests that this may be the beginning of the new normal for Florida.

"This is one of the implications of global warming," she said.

As average temperatures rise, mosquitoes are becoming more and more present throughout parts of the U.S., bringing with them new illnesses.

"These diseases were not present for more than 100 years, and now we are seeing them again," said Lichtenberger, pointing to last year's malaria alert in western Florida as another example.

"We have to start thinking about what our responsibility is," she said "It's not just a matter of temperatures and water—it has to do with health."

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