

Number of people susceptible to painful mosquito-borne virus increasing, says leading researcher

July 24 2014, by Lindsey Elliott

In just two weeks, the number of Americans infected with the mosquito-borne virus chikungunya has almost doubled and the virus has now been found in mosquitoes in the United States, something that is very concerning to a Kansas State University professor who is a leading researcher of the virus.

At least 243 travel-related cases of chikungunya have been reported to the Centers for Disease Control and Prevention in 31 states, with the number expected to grow. The first case acquired in the United States was reported in Florida, seven months after the mosquito-borne [virus](#) was recognized in the Western Hemisphere.

Stephen Higgs, one of the world's leading researchers of the virus and director of Kansas State University's Biosecurity Research Institute, says many more people are now at risk of becoming infected.

"Those travelers have come back from an infected area, most likely the Caribbean, and they've become infectious to [mosquitoes](#) because they are carrying chikungunya in their blood," Higgs said. "They have been bitten by mosquitoes in the United States and those mosquitoes have become infected. The mosquitoes go through an intrinsic incubation period and then have enough virus to transmit to new people in the United States."

Higgs, who also serves as Kansas State University's associate vice president for research, a university distinguished professor and the Virginia and Perry Peine biosecurity chair, has been studying the [chikungunya virus](#) for almost 10 years. He says the two types of mosquitoes that transmit chikungunya, *Aedes aegypti* and *Aedes albopictus*, are widely distributed in the U.S. While mosquitoes don't transmit the virus directly to one another, they indirectly spread the virus by biting humans.

"It transmits from person to mosquito to person to mosquito and so forth," Higgs said. "Mosquito biting can be intense and one person can be bitten by dozens of mosquitoes in just a small amount of time. One person could infect lots and lots of mosquitoes and then, unfortunately, the virus can spread from there. Each one of those mosquitoes can infect multiple people."

Chikungunya is an African Makonde word that means "to bend up." It describes a crippling arthritis that can be so intense that it actually causes the person to bend up in pain, Higgs said. No vaccine or treatment for the virus is available. It will usually go away after days, but sometimes can take weeks or even longer.

The best way to prevent getting the virus is to avoid getting bitten by mosquitoes. Do not go outside at dusk and at dawn, when mosquito activity is high. Also use repellent when you do go outside. Get rid of standing water around your house, such as in potted plants, because this is a breeding ground for mosquitoes. Check the CDC website for information before traveling to infected areas. If you think you may have been infected, contact your doctor.

Provided by Kansas State University

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