The Centers for Disease Control and Prevention (CDC) warned this week that malaria is spreading within the U.S. for the first time in 20 years.

While around 2,000 Americans suffer the disease every year, usually the cases emerge in people that have recently traveled to tropical countries in Africa. However, four cases in Sarasota County, on the west coast of Florida, and one in Cameron County, on the southernmost tip of Texas, are not linked to international travel.

The current infections were detected between late May and late June, the CDC says. All of the patients have received treatment and are recovering from their illness.

Malaria is a disease caused by a parasite and is primarily spread to humans through Anopheles mosquitoes, which can be found across the U.S. An infected mosquito can transmit the parasite to a person when it bites them. Individuals who contract malaria typically become very sick with a high fever and chills, and are treated with prescription drugs that will kill the parasite, according to Mayo Clinic.

The detection of these recent cases has officials sounding alarms that the deadly parasitic infection could be spreading domestically.
Dr. Rhoel Dinglasan, an infectious disease expert at the University of Florida, told The Messenger that the virus was likely carried into the state by a tourist.

The unknowing visitor from a nation where the disease is endemic may have had a mild or asymptomatic case of malaria, and could have transmitted the disease to a mosquito who bit them. This infected mosquito may have, in turn, spread the virus to others that it bit.

“It is known that this is a true phenomenon from malaria,” he explained.

“That individual would come into the area and since they’re not sick, they’re not presenting at the clinic,” Dr. Rhoel Dinglasan said. In other words, the visiting tourist who had malaria might not have even known they were spreading it when they were bitten by an insect.

Once a menace to Americans, an intense campaign to boost water sanitation and reduce insect breeding in the 1940s effectively erased malaria from American life. While the bugs that carry the virus are still around in the U.S., they are less likely to pick up the parasite to spread it.

The virus was declared eradicated in 1970. Case figures began to drastically decrease stateside as early as the 1950s, though.

Domestic-borne cases have been rare since. The CDC reports that the last time the agency detected cases originating in the U.S. was in 2003, when eight such infections were recorded in Palm Beach, Florida.

However, African countries with less resources have been unable to take on such ambitious campaigns and still deal with the virus as a result. When left untreated, the disease can cause significant and potentially deadly damage to the kidneys and brain. Dr. Dinglasan warns that some people who recover from the disease may still carry it in their liver, and are vulnerable to reinfection. An estimated 240 million malaria cases and 600,000 deaths occur each year – with nearly all in Africa.

Florida remains a danger zone for mosquito-borne illnesses, however.

“All of the conditions that are favorable for mosquitos obviously exist in Florida,” Dr. Dinglasan continued.
“High humidity, lots of rain and lots of natural forest reserves butting directly into human populations. Lots of sources for food [for mosquitos], both animals and humans.”

Dr. George Rust, director of the Center for Medicine and Public Health at Florida State University, told The Messenger that this makes the Sunshine State more equipped to handle this type of outbreak as well.

“You already always want to protect yourself from mosquitoes in Florida,” he said. For example, the CDC recommends wearing long-sleeved shirts and using a bug repellent with DEET while in forested areas.

In response to this outbreak, Sarasota officials are using pesticides to kill adult populations of mosquitoes. The parasite takes around two weeks to incubate in a mosquito – the bugs have three-week life spans – so the adult bugs carry the most risk.

There is no all-encompassing vaccine for malaria. However, the RTS,S vaccine is distributed to children in at-risk nations to lower the chance of severe side effects or death after infection from \textit{P. falciparum}, the disease’s most dangerous strain.

The five U.S.-born cases were each determined to be the relatively mild \textit{P. vivax} strain. It was the same strain that erupted in Florida 20 years ago.

Antimalarial drugs such as Malarone and Chloroquine can preemptively reduce a person’s risk of infection. While they are not used in the U.S., travelers to African countries where the virus is endemic are often recommended to take them. The drugs are not used routinely across the U.S., in part, because they must be taken daily in order to be effective.

If you think you may have contracted malaria, seek medical attention immediately. Symptoms can include headaches, nausea and muscle aches.

“One of the worst headaches and fevers [you’ve ever felt]. And you feel like you’re dying,” Dr. Dinglasan said of the symptoms.

He worries that the July 4 weekend could lead to a spike in cases. Mosquitoes that carry malaria are most active at night, and firework celebrations over the holiday will bring many outdoors during the bugs’ prime hours.

Dr. Rust says it is too early to panic, though, adding: “There are a lot of other things that are more common [that can cause you to get sick].”

“[Malaria] is very low on a scale of things that can kill you.”