



# FAQ: Locally Acquired Malaria Cases Identified in the U.S.

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On June 26, 2023, the Centers for Disease Control and Prevention at (CDC) issued a [Health Alert Network \(HAN\) Health Advisory](#) identifying five cases of malaria (*Plasmodium vivax*) acquired from mosquitos in the United States, specifically Texas and Florida, in April and May 2023. While the risk of malaria transmission in the U.S. is normally low, risk increases: (1) in U.S. regions where *Anopheles* mosquito vectors are found; (2) when local climatic conditions allow the *Anopheles* mosquito to survive throughout the year; and (3) in U.S. regions with high with frequent travelers from malaria-endemic countries. The risk of malaria transmission affects all people, including infants and children. Through the HAN advisory, CDC is urging clinicians to consider a malaria diagnosis in any person with fever of unknown origin regardless of their travel history. As most cases of malaria in the U.S. are imported among travelers from other countries, clinicians should continue to routinely obtain travel history and consider malaria in a symptomatic returned traveler. Suspected or confirmed locally acquired malaria is a public health emergency and should be reported immediately to your state, territorial, local, or tribal health department.

## How does malaria present in kids?

In children, symptoms are often non-specific and mimic other childhood illness including gastroenteritis, meningitis, or pneumonia. Symptoms may include high fever with chills, headache, malaise, weakness, nausea, vomiting and diarrhea. In severe cases, neurological symptoms, such as dizziness, confusion, disorientation, and coma may occur, but this is less common with *Plasmodium vivax*, the species of malaria identified to be locally acquired. Malaria symptoms can develop as early as 7 days after being bitten by an infectious mosquito and as late as several months or more after exposure.

## How is malaria transmitted?

Most malaria cases have occurred through the bite of an infective female anopheline mosquito to a human. Rarely, malaria may be transmitted congenitally from mother to fetus or to the neonate at birth, through blood transfusions, organ transplantation, or through unsafe needle-sharing practices. Mosquito activity can increase as temperatures increase, and infected mosquitos can multiply rapidly in areas that experience “monsoon season” and/or flash floods after heavy rainstorms. Mosquitos potentially carrying diseases such as malaria can reproduce rapidly in standing water, where small children and animals can be exposed.

[CDC - Malaria - About Malaria - Malaria Transmission in the United States](#)

## Who are considered high-risk patients?

Individuals without prior immunity to malaria, young children, pregnant women, and immunocompromised patients are at highest risk for severe disease. Malaria in pregnant women is associated with high risks of both maternal and perinatal morbidity and mortality. Malaria parasites sequester and replicate in the placenta. Pregnant women are three times more likely to develop severe disease than non-pregnant women who acquire malaria in the same geographic area. Malaria infection during pregnancy can lead to miscarriage, premature delivery, low birth weight, congenital infection, and/or perinatal death. [Malaria | Red Book: 2021–2024 Report of the Committee on Infectious Diseases | Red Book Online | American Academy of Pediatrics \(aap.org\)](#)

## How is malaria diagnosed?

Blood smear microscopy remains the most important method for malaria diagnosis. This is a rapid test with results available in less than 24 hours. Microscopy of a blood smear can provide immediate information about the presence of parasites, allow quantification of the density of the infection, and allow determination of the species of the malaria parasite—all of which are necessary for providing the most appropriate treatment. If the initial blood smear is negative but index of suspicion of malaria remains high, repeating the blood smear once a day for the next 2 days may be helpful. Rapid diagnostic tests (RDTs) are immunochromatographic tests that most often use a dipstick or cassette format and provide results in 2–15 minutes. RDTs offer a useful alternative to microscopy in situations where reliable microscopic diagnosis is not immediately available. Although RDTs can detect malaria antigens within minutes, they have several limitations. RDTs cannot distinguish between all *Plasmodium* species that affect humans and they might be less sensitive than expert microscopy or PCR for diagnosis. PCR tests also are available to detect malaria parasites. These tests are more sensitive than routine microscopy, but results are not usually available as quickly as microscopy results. [Malaria | CDC Yellow Book 2024](#)

## What are the best ways to prevent malaria?

Malaria can be fatal even when treated, which is why prevention is always preferable to treating infections after they occur. The primary method of malaria prevention is avoiding mosquito bites. *Anopheles* mosquitoes primarily feed at night with transmission occurring mostly between dusk and dawn. Prevention strategies when traveling to countries with endemic malaria include personal protective measures such as using insecticide-treated bed nets, wearing clothes that minimize exposed skin, and applying mosquito-repelling chemicals. Not all mosquito repellants are equally effective or safe in children. [Malaria | Mosquito Repellent | CDC](#)

All travelers to malaria-endemic regions should be prescribed antimicrobial prophylaxis. Prophylaxis is not necessary for people in the U.S., even in areas where local transmission of malaria has been identified. All prevention regimens involve beginning the medication before departure, taking the medication while in the high-risk area, and continuing the medication for a defined period after travel has ended. These regimens should be used concurrently with person protective measures. Clinicians can remind patients and their families to prevent mosquito bites and control mosquitos at home to protect them from mosquito-borne illnesses. [Mosquito Control at Home | Mosquitoes | CDC](#)

CDC provides recommendations for medications used for malaria prophylaxis for those traveling to regions with the highest rate of malaria transmission, these include sub-Saharan Africa, the Indian subcontinent, and Southeast Asia. Malaria contractability does vary with seasons, the highest risk is during or just after the rainy season, between May and December. [Table 5-28 in the CDC's Yellow Book](#) provides pediatric dosing for malaria prophylaxis.

### **How is malaria treated in kids?**

Malaria treatment should be initiated after the diagnosis has been confirmed. The drugs used vary depending on the species and/or area of acquisition. Presumptive treatment should be reserved for extreme circumstances, such as strong clinical suspicion of severe disease in a setting where prompt laboratory diagnosis is not available. Once diagnosed, malaria must be treated immediately. If not treated promptly, malaria may progress to severe disease, a life-threatening stage, in which mental status changes, seizures, renal failure, acute respiratory distress syndrome, coma, and death may occur. A CDC Malaria Hotline can be reached at 770-488-7788 or toll-free at 855-856-4713 from 9 a.m. to 5 p.m. Eastern Time. After hours, on weekends, or on holidays, call the CDC Emergency Operations Center at 770-488-7100 and ask the operator to contact the subject matter expert on call for the Malaria Branch. [Table 5-26 in the CDC's Yellow Book](#) provides pediatric dosing for the treatment of malaria.

Information for parents and families

[CDC - Malaria - About Malaria - FAQs](#)

[Malaria \(for Parents\) - Seattle Children's Hospital \(kidshealth.org\)](#)

[Malaria - MotherToBaby](#)