

Vector-borne Diseases (VBD) Newsletter

Summer 2024

Vector-borne diseases are infectious diseases that result from an infection transmitted to humans and other animals by blood-feeding arthropods, such as mosquitoes, ticks, and fleas.

Mosquito-borne Diseases

The Inside Scoop

The most effective way to avoid getting sick from viruses spread by mosquitoes is to prevent mosquito bites. Mosquitoes can spread viruses that make you sick or, in rare cases, cause death.

Some species of mosquitoes primarily bite during the day, while others are active during the morning and evening hours. Mosquitoes live outdoors, but may enter our homes through open doors, windows, or damaged screens. You cannot tell whether or not a mosquito that bites you is carrying a virus just by looking at it, so you must protect yourself from all mosquito bites.

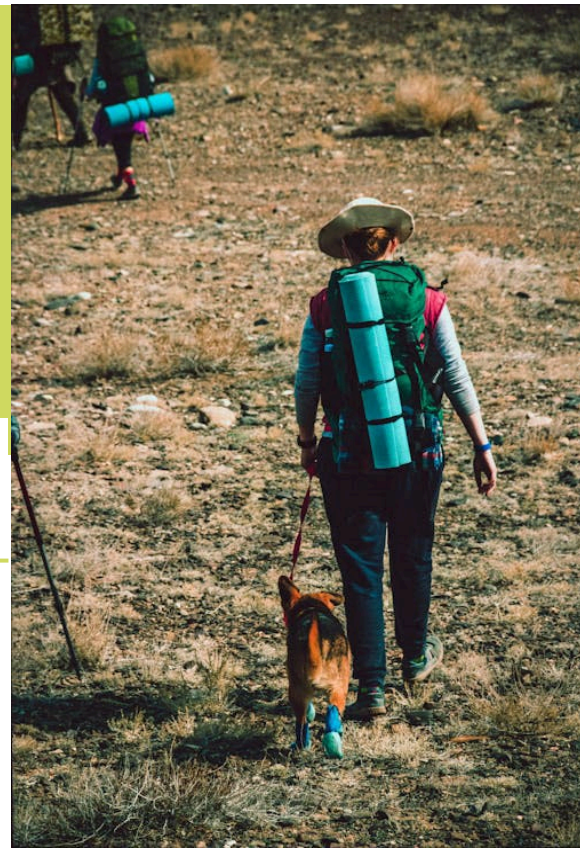
Examples of viruses spread by mosquitoes:

- West Nile
- Eastern equine encephalitis virus (EEEV)
- Dengue
- Chikungunya
- Zika

Everyone should be prepared to prevent mosquito bites by using insect repellent, wearing long-sleeved shirts and pants, and taking steps to control mosquitoes indoors and outdoors. These steps include dumping standing water, using screens on windows and doors, and covering trash cans and rain barrels. For more information on controlling mosquitoes, visit <https://www.cdc.gov/mosquitoes/mosquito-control/mosquito-control-at-home.html>.

When traveling overseas, learn about destination-specific health risks and recommendations by visiting <https://www.nc.cdc.gov/travel>.

“When used as directed, insect repellents are the BEST way to protect yourself and family members from getting sick from mosquito bites.”
– Centers for Disease Prevention and Control



2023 Surveillance Data

West Nile virus (WNV) is the leading cause of mosquito-borne disease in the United States. Cases of WNV occur during mosquito season, which starts in the summer and continues through the fall. There are currently no vaccines to prevent or medications to treat WNV in people.

In 2023, many West Nile Virus (WNV) cases were reported statewide. A total of 29 human cases were confirmed. WNV is underreported mostly because people do not seek care due to mild symptoms that resembles the flu. Additionally, WNV activity was reported in eight sentinel chickens, one horse, and two birds (an American Crow and Brown Pelican).

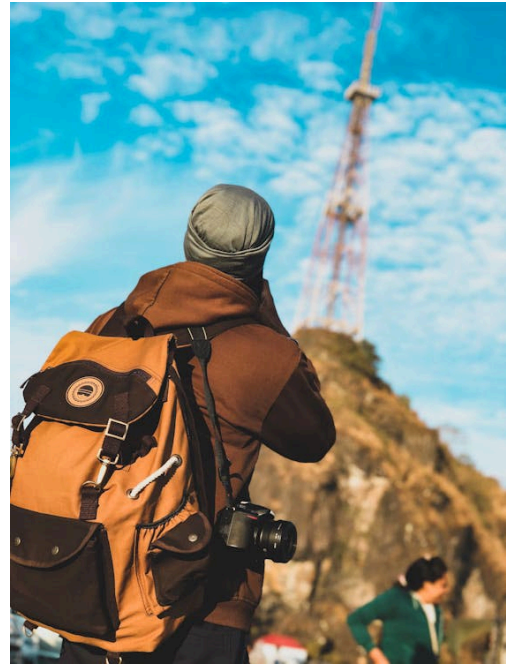
Additionally, there were three cases of EEEV in Baldwin County with one fatality. Mosquitoes that transmit WNV and EEE are found statewide.

Preventing Mosquito Bites While Traveling

Travelers should learn about current risks and how to prevent mosquito bites during their trip. Mosquitoes spread viruses and parasites not common or present in the continental United States.

- Plan ahead before traveling.
- Pack insect repellent and protective clothing.
- Look for lodging with screens or air conditioning or pack a mosquito net.
- If traveling abroad, find out if vaccines for mosquito-borne diseases are available.
- After your trip, watch for symptoms and prevent mosquito bites for 3 weeks.

For more prevention tips while traveling, visit <https://www.cdc.gov/mosquitoes/prevention/preventing-mosquito-bites-while-traveling.html>.



It is important to investigate travel-related cases because Alabama does have the mosquitoes that can transmit those diseases. For mosquito-borne disease, investigations are higher than cases due to clinical and laboratory evidence not meeting the criteria to classify as a case.

Below in the chart are all the reported human cases in 2023 for the state of Alabama.

Cases Reported Year-To-Date*	Total of Cases by Year Reported	Total Investigations by Year Reported
Mosquito-Borne Disease	2023	2023
California serogroup viruses (California encephalitis, Jamestown Canyon, Keystone, La Crosse, Snowshoe hare, Trivittatus viruses)	0	0
Chikungunya - (travel related, acquired out of state)	1	4
Dengue - (travel related, acquired out of state)	5	13
Eastern equine encephalitis	3	3
Malaria - (travel related, acquired out of state)	11	11
West Nile	29	71
Total	49	102

Some of the mosquitoes found in Alabama includes *Aedes aegypti* (Yellow-fever mosquito), *Aedes albopictus* (Asian tiger mosquito), and *Culex quinquefasciatus* (Southern house mosquito).

Tick-borne Diseases

The Inside Scoop

Tick-borne diseases are transmitted to a person from the bite of an infected tick.

Some common ticks in Alabama are the Blacklegged (Deer), American Dog (Wood), and Lone Star. Ticks typically dwell in grassy, brushy, or wooded areas. While more active in the early spring and late fall months, tick-borne illnesses are reported year-round. It is vital to remain vigilant by conducting tick checks whenever you return from the outdoors.

Examples of diseases spread by ticks:

- Spotted fever rickettsiosis
- Lyme disease
- Ehrlichiosis
- Anaplasmosis
- Babesiosis
- Tularemia

Clinical Diagnosis of Tick-borne Diseases

Many tick-borne diseases can be difficult to diagnose due to the non-specific signs and symptoms in the early stages of illness. Signs and symptoms can vary from patient to patient and can resemble other, more common diseases. Some signs and symptoms may include:

- Fever
- Chills
- Muscle and joint pains
- Malaise
- Rash (erythema migrans for Lyme disease cases)
- Headache



For tick-borne disease, investigations are higher than cases due to clinical and laboratory evidence not meeting the criteria to classify as a case.

Below in the chart are all the reported human cases in 2023 for the state of Alabama.

Cases Reported Year-To-Date*	Total of Cases by Year Reported	Total Investigations by Year Reported
Tick-Borne Disease	2023	2023
Anaplasmosis	1	7
Babesiosis	1	6
Ehrlichiosis	4	9
Ehrlichiosis/Anaplasmosis, undetermined	0	1
Lyme disease	36	171
Spotted Fever Rickettsiosis	81	380
Tularemia	1	5
Total	124	579

Preventing Tick Bites While Outdoors

Reducing exposure to ticks is the best defense against tickborne diseases. Tick exposure can occur year-round, but ticks are most active during warmer months (April-September).

Before you go outdoors:

- Know where to expect
- Treat clothing and gear
- Use Environmental Protection Agency (EPA)-registered insect repellents
- Avoid contact with ticks

For more prevention tips, visit

<https://www.cdc.gov/ticks/prevention/index.html>

If bitten by a tick, keep the tick and contact your healthcare provider. The tick can also be sent to the University of South Alabama for tick identification.

For more information, visit

<https://www.alabamapublichealth.gov/tick/index.html>



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