

from Mosquito-borne
Diseases

Facts about Zika, dengue, and chikungunya



Fight the Bite!

One of Hawaii's smallest pests is one of our biggest health threats. Mosquitoes can carry viruses that cause serious illness. People can become infected with Zika, dengue, or chikungunya after being bitten by an infected mosquito.

By understanding how to control mosquito breeding areas and to protect from being bitten, we can help prevent these diseases from coming to and spreading here in Hawaii.

Hawaii has a variety of mosquitoes and a yearround mosquito season. This puts us at risk if a mosquito-borne disease arrives in our state.



Protect our Islands

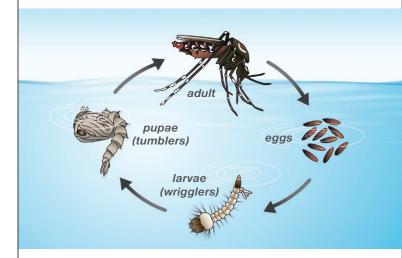
Travelers – both residents and visitors – may bring these diseases to our state, and need to protect themselves from mosquito bites to prevent spreading illnesses like Zika, dengue, and chikungunya. Protect Hawaii and learn more about these diseases and where they exist in the world to prevent bringing them to Hawaii.

The Mosquito Breeding Cycle

It's better and easier to control mosquitoes before they hatch and become flying adults.

Mosquitoes need standing water to lay their eggs. By getting rid of standing water around your house, you can greatly reduce the number of mosquitoes.

One female mosquito can lay 100-300 eggs at a time, and might average 1,000 to 3,000 offspring during her lifespan. Adult mosquitoes live about two to three weeks.



In Hawaii, Zika, dengue, and chikungunya can be transmitted by the day-biting *Aedes* mosquitoes, which include the *Aedes albopictus* (found on all islands) and *Aedes aegypti* (found mainly on Hawaii Island). Studies are ongoing to map the locations of these mosquitoes to better protect people from the viruses they spread.

Mosquito-borne Diseases

Mosquito-borne diseases are spread by the bites of infected mosquitoes, and are not usually transmitted from human to human, with the exception of Zika. There is currently no vaccine to prevent Zika, dengue, or chikungunya.

Though there are no specific treatments, checking with your doctor is important for testing and diagnosis. People returning home from an area where these diseases are present should protect themselves from mosquito bites for at least three weeks because the virus may still be in their system.



Zika (zee-ka) virus is spread to people primarily through the bite of an infected mosquito, but can also be transmitted through blood transfusions, sexual contact with an infected person, or from a pregnant mother to her baby. Most people infected with Zika will not show symptoms. Symptoms may include:

- · Rash
- Joint pain
- Red eyes (conjunctivitis)
- Muscle pain and headaches

Symptoms are often mild, and death from Zika infection is very rare. If symptoms show, they will usually last for several days to a week.

Zika virus infection during pregnancy can cause microcephaly, a serious birth defect where a baby's head is smaller than normal.

Pregnant women should avoid travel to areas where Zika is circulating, and consult their doctors before making any travel plans.

What is Dengue Fever?

Dengue (den-gee) is a virus transmitted to humans by the bite of an infected mosquito. Symptoms may include:

- · Sudden fever
- Severe headaches
- Rash
- · Eye, joint, and muscle pain

Symptoms can appear two to 15 days after being bitten by an infected mosquito. Even if you get dengue once, you can get it again.

What is Chikungunya?

Chikungunya (cheek-en-gun-ye) is a virus transmitted to humans by the bite of an infected mosquito. Symptoms may include:

- Fever
- Joint pain
- Less common are headache, muscle pain, joint swelling, and rash

The majority of cases recover in seven to ten days, but some may have ongoing joint pain for months. Symptoms can be severe and debilitating, but death from chikungunya is uncommon.

After being infected with chikungunya, people are likely to be protected from the virus in the future.



If you have traveled to an area where these diseases are circulating, such as Southeast Asia, Africa, Latin America, or the South Pacific, and become ill within two weeks of your visit, see your doctor immediately. Be sure to explain where you traveled to.

Protect yourself and your family from being bitten by mosquitoes



Apply EPA-registered insect repellent with 20-30% DEET, especially if outdoors.

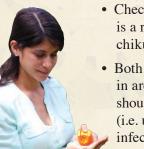


Wear protective clothing, such as light-colored long pants, long-sleeved shirts, socks, and shoes.



Avoid activities during sunrise and sunset when mosquitoes are most active, as well as areas with mosquitoes, such as shady, damp locations.

Prepare carefully for travel, especially to regions where these diseases may be spreading



- Check before leaving if there is a risk of Zika, dengue, or chikungunya at your destination.
- Both men and women traveling in areas where Zika is spreading should adopt safe sex practices (i.e. using a condom) to prevent infection through sexual transmission.
- Avoid getting bitten by mosquitoes, especially if you are pregnant.
- Visit the CDC Travelers' Health webpage for notices and warnings at cdc.gov/travel.

Prevent mosquito breeding areas and help to eliminate mosquitoes



Get rid of standing water in buckets, puddles, wheelbarrows and bins.



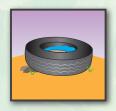
Fix leaky faucets and hoses that are dripping water.



Flush out bromeliads and other leafy plants that hold water weekly.



Clean out gutters so water can run freely.



Clean up trash and debris, for example, dispose of old tires.



Repair screens and windows to keep mosquitoes out.



If you have questions about Zika, dengue fever, or chikungunya, call the Aloha United Way's Hawaii 211 (dial 2-1-1)

To report a possible case, contact the Hawaii State Department of Health's Disease Investigation Branch at 808-586-4586.

For additional resources, contact numbers, and information, visit **www.FightTheBiteHawaii.com** or www.health.hawaii.gov



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