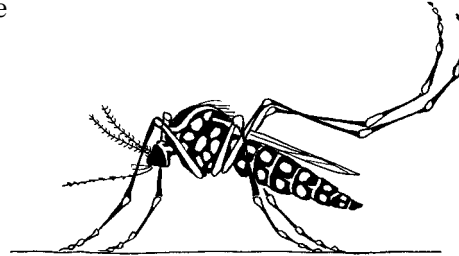


This information reflects what is known in March 2017.
See Hesperian's website at www.hesperian.org for updates.

Zika virus

The Zika virus is spread by black mosquitoes (*Aedes aegypti* or *Aedes albopictus*) with bands of white dots that look like white stripes. Their legs are also striped. These are the same mosquitoes that can carry dengue, chikungunya, and yellow fever viruses. These mosquitoes usually bite during the day, especially in the early morning and late afternoon. When Zika virus appears in an area for the first time, it can spread very quickly.



Zika virus may cause a mild fever, rash, and body aches, usually for a few days only. Many people who get it develop no signs. It can be hard to tell which virus a person has if Zika, dengue, and chikungunya are all present in your region.

Zika virus and pregnancy

Zika can be very dangerous for a baby growing in the womb, but not all babies born to women who get Zika during pregnancy will have problems. In Brazil, following an outbreak of Zika, some babies were born with a serious condition called microcephaly, where the baby's head is too small. Babies with microcephaly may die at birth or may live for many years but have problems developing physically and mentally. Because of this, all women and especially women who might be pregnant should try to prevent mosquito bites by covering up with clothing, using mosquito repellents, and keeping mosquitoes away by using screens and bed nets in the home.

If you are thinking about getting pregnant, it is a good idea to wait until after Zika is no longer affecting people in your community. Ensuring that birth control is made accessible to all women is an important way to limit harm from the Zika virus.

Zika can be passed from a man to a woman during sex. In an area with Zika, use condoms to prevent passing Zika. If a woman is pregnant, it is especially important for her and her partner to use condoms to prevent Zika from affecting the baby before it is born.

In an area with no Zika from mosquitoes, a woman can still get Zika from sex if her partner has traveled to an area with Zika. He should use condoms for at least 6 months after his return to prevent spreading Zika through sex.

No babies have gotten Zika from breastmilk. Whether or not you have had Zika, breastfeeding is the best way to nourish and protect your baby's health.

Signs of Zika virus

- Fever, rash, joint pain, and irritated or red eyes (“pink eye” or conjunctivitis) are most common.
- Muscle pain and headache can also be signs.

Zika is usually mild and lasts just a few days or up to 1 week. Usually a person with Zika virus is not sick enough to need to go to a hospital.



Malaria, dengue, chikungunya, and other illnesses can have similar signs as Zika. Except for malaria, tests can be slow, expensive, and difficult to find. Health officials in your area should have information on whether one or more of these illnesses are in your region and if tests are available.

Is it Zika virus, dengue, chikungunya, or malaria?

Is it Zika virus, dengue, chikungunya, or malaria?

These diseases share many of the same signs including fever, aches, and rash. It is also possible to be infected by more than one at the same time. Some signs help point to one disease over another.

Malaria: Usually starts with chills (shivering), a headache, and then a fever that lasts several hours. The fever is sometimes very high. The pattern of chills and fever usually repeats every few days. Malaria does not give a rash.

Dengue: Gives a high fever that comes on suddenly and can last up to a week. Usually 2 or more of these signs with the high fever means dengue: severe muscle and joint aches, headache and pain behind the eyes, nausea or vomiting, or a rash. Watch out for vomiting blood, unusual swelling, or bleeding from the nose, gums, or skin as these can be signs of a dangerous type of dengue where emergency help is needed.

Chikungunya: Usually there is a mild fever and very intense joint pain that may affect the hands, feet, knees, and back. The joint pain can be so painful that people stay bent over and cannot walk. After the fever goes away, the joint pain can last for several more weeks, or even months.

Zika: Can give a mild fever, rash, and body aches. It is also common to have irritated eyes or “pink eye” (conjunctivitis).

Treatment

There is no medicine to treat Zika virus, and no vaccine to prevent it. Zika can be treated at home with bed rest, drinking plenty of fluids, and taking acetaminophen (paracetamol) to reduce pain and fever. In case the person has dengue, and not Zika, using acetaminophen is safer than aspirin or ibuprofen, which are dangerous for people with dengue. If a woman might be pregnant, aspirin and ibuprofen could be harmful to her baby but acetaminophen is safe.

When you are sick, a mosquito can bite you and spread the virus to other people it bites. That is why it is good prevention for the community to protect a sick person from getting any new mosquito bites. Use a bed net while in bed and stay away from water sources (like rivers, wells, or water pumps) early in the morning or late in the day when these mosquitoes bite most.



Reasons to see a health worker

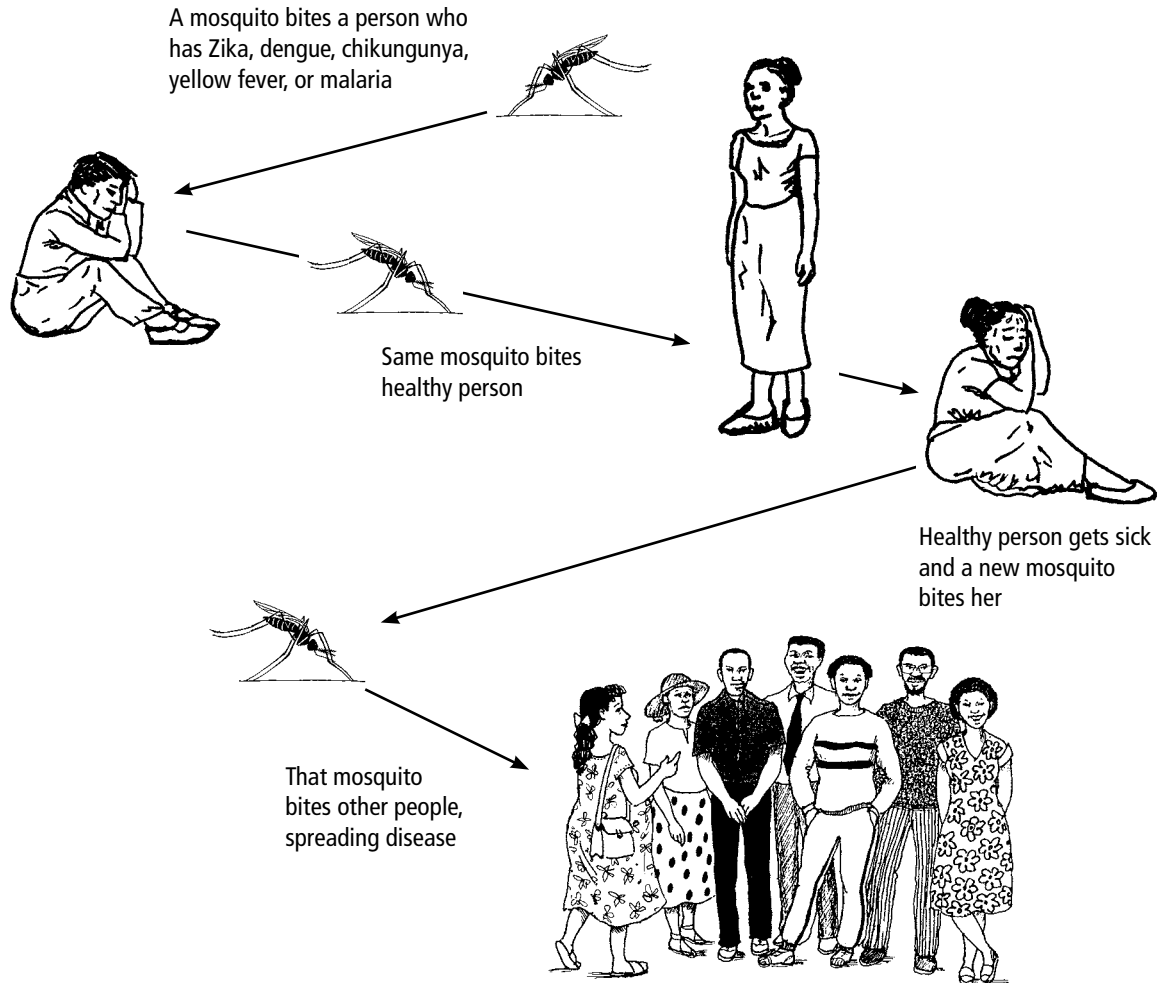
Zika can be treated at home but seeing a health worker is especially important when there is:

- very high fever (40°C/104°F).
- fever followed by unexplained bleeding from the skin or gums (caused by dengue). This is an emergency.
- illness in a baby.
- illness in someone elderly or with serious health problems including high blood pressure or heart problems.
- severe aches that continue longer than 2 weeks (can occur with chikungunya).
- severe weakness, tingling, or no feeling in the legs, arms or face. This could be a sign of Guillain-Barré syndrome, a serious condition best treated in a hospital.

Informing local health workers and health officials about who is sick can help them know when it is urgent to take community-wide measures to stop the illness from spreading.

How mosquitoes spread disease

You can stop illnesses carried by mosquitoes by preventing mosquito bites and preventing mosquitoes from breeding in the home and in the community.



Prevent mosquito bites

Unlike the malaria mosquito, the mosquitoes carrying Zika bite mostly during the day. These mosquitoes usually stay in shady, dark places, such as under tables or beds, or in corners. You can avoid mosquito bites:

- Wear clothes that completely cover the arms, legs, feet, neck, and head (long sleeves, pants, and skirts, and a head covering).
- Use natural repellents like citronella, neem oil, or basil leaf. Or use chemical repellents that have one of these ingredients: DEET, Picardin (KBR 3023, icaridin), PMD and other oil of lemon eucalyptus compounds, or IR3535. Repellents are especially important for children because they can prevent mosquito bites even when other preventive steps are not taken, but read the label carefully to make sure the product is safe for children. The label will also say how often to reapply. Usually repellent needs to be reapplied every few hours, but some last less time.

- Only use mosquito coils until you can find a better repellent. The smoke from the mosquito coils can harm your breathing.
- Use screens on windows and doors. Repair or patch any holes.
- The moving air from a fan can keep mosquitoes away.
- Use bed nets. Tuck the edges of the nets under the bed or sleeping mat so there are no openings.

Bed nets are especially helpful against the malaria mosquito that bites at night, but they also help prevent Zika for small children or others who sleep during the day. Bed nets will also keep those who are already ill from being bitten by a mosquito that could then give the illness to others. Mosquito netting and bed nets treated with insecticide are best. To be effective, bed nets must be re-treated every 6 to 12 months. Use a net when sleeping outdoors.

Prevent mosquitoes from breeding

The mosquitoes that spread Zika, dengue, and chikungunya breed in standing water. A mosquito will lay eggs in even a shallow dish of water where they will hatch in about 7 days. By getting rid of standing water once a week, mosquito breeding is interrupted because their eggs do not hatch to spread disease. To prevent mosquitoes from breeding:

- Outside your home, get rid of places where water collects (standing water) such as old car tires, flower pots, oil drums, ditches, and even small containers and bottle caps. Do this at least once a week or after it rains.
- Inside the house, frequently change the water in flower vases and water dishes for animals. Unless containers are scrubbed clean, mosquito eggs can stick to the sides of the containers where they can live for months until there is water to make them hatch.
- Tightly cover water storage containers so mosquitoes can't get inside to lay eggs. For containers, barrels, or water tanks with no lids, use screens or wire mesh with holes too small for a mosquito to get in, or cover with plastic sheeting and tie in place.



To help prevent illness, get rid of places where mosquitoes can breed and keep water containers covered.

Communities can prevent mosquito illnesses

The community can help elderly people, people with disabilities, or families without enough money to get the supplies or make the changes they need to avoid mosquito bites. Help your neighbors keep their yards and homes free of standing water to prevent mosquitoes from breeding. As long as mosquitoes find a place to breed, they can infect everyone in the community. That is why community-wide prevention efforts are so important.

Roadways and anywhere else water collects need attention to stop mosquitoes from breeding. Keeping natural waterways and rain water moving and flowing will keep water from collecting. Manage land so water soaks into the ground or runs off into streams instead of collecting in areas where mosquitoes can breed. Protect watersheds so water will keep flowing. Don't let water pool on the ground, collect in trash dumps or vacant lots, or allow streams to be blocked by eroded soil, leaves, or other debris. Hesperian's *Community Guide to Environmental Health* has more information on community mosquito control.

Remove mosquito breeding sites around the house and community:

