

## Frequently Asked Questions – Zika Virus and Mosquitoes San Diego County – May 2017

### What is Zika?

Zika is a virus. It is spread by daytime-active *Aedes* mosquitoes, such as *A. aegypti* and *A. albopictus*. It did not begin spreading widely in the Western Hemisphere until recently and is now a risk in [multiple countries and territories](#).

### How is Zika spread?

- People can get Zika virus in several ways:
  - Being bitten by infected *Aedes* species mosquitoes (*Aedes aegypti*, *Aedes albopictus*).
  - By sexual contact with someone who is infected.
  - Through blood transfusion – though rare since blood donations are now screened for Zika.
  - During pregnancy (mother-to-unborn child).

Note that not all mosquitoes are able to transmit the Zika virus and not all *Aedes* mosquitoes are infected with the Zika virus.

### What are symptoms of Zika?

- The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). Only one in five (20%) of people infected will develop symptoms. This means that most people will not have any symptoms; of those who develop symptoms, most will only have mild symptoms. The illness is usually mild with symptoms lasting from several days to a week. However, infection with Zika virus during pregnancy can cause severe birth defects, such as [microcephaly](#) and brain defects, which is why protecting pregnant women from getting Zika is a highest priority.

### Have there ever been Zika cases in San Diego County?

- To date, there have been no local mosquito-transmitted Zika virus cases in San Diego County; all cases reported in San Diego have been travel-related.
- The great majority of Zika virus cases in the continental United States have been in travelers returning from places where Zika virus is present. There have been cases of Zika in the United States that have been sexually transmitted, including some in San Diego County. The first two travel-associated Zika virus cases were reported in San Diego were prior to 2016:
  - This first case was in July 2014, a San Diego resident returning from a trip to the [Cook Islands](#).
  - The second was in July 2015, a San Diego resident returning from a trip to [Kiribati](#).
- For the latest update of Zika cases, please visit [http://www.sandiegocounty.gov/hhsa/programs/phs/community\\_epidemiology/dc/zika\\_virus.html](http://www.sandiegocounty.gov/hhsa/programs/phs/community_epidemiology/dc/zika_virus.html)

### Who is at risk for getting Zika virus?

- At this time, **travelers** to areas where there are locally spread cases of Zika virus infection can potentially get infected. This includes individuals who commute back-and-forth to regions where the Zika virus has been transmitted locally. There are currently dozens of countries and territories in the Western Hemisphere (the Americas) that have reported locally transmitted Zika virus infections. This may change, and the most up-to-date list may be found at <http://wwwnc.cdc.gov/travel/page/zika-travel-information>.
- Mexico is one of the many countries that has reported locally transmitted Zika virus, including the border states of Baja California and Sonora.
- Individuals commuting back-and-forth to Mexico, particularly **pregnant women** or couples thinking about conceiving, should protect themselves from mosquito bites.
- If you have been bitten by a mosquito, but have not traveled to a country or territory where the Zika virus is present, it is extremely unlikely that you can get the virus.

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### **Do we have the mosquito that can transmit Zika here?**

- Yes, the invasive *Aedes aegypti* and *Aedes albopictus* mosquitoes that can transmit the Zika virus have been detected in San Diego County. The first local detection of *Aedes aegypti* (yellow fever mosquito) was reported in October 2014. *Aedes albopictus* (Asian tiger mosquito) was first detected in San Diego in September 2015.
- *Aedes aegypti* is not native to California and can transmit the viruses that cause dengue, chikungunya, yellow fever, and Zika. However, these viruses **have not been transmitted** locally in California.
  - *Aedes aegypti* and *Aedes albopictus* are dark mosquitoes with white stripes on their legs and back.
  - They are aggressive biters both indoors and outdoors, especially during the day.
  - They prefer to lay their eggs in small containers that hold water both indoors and outdoors like plant saucers, vases, discarded tires, buckets, and watering cans.
  - *Aedes aegypti* eggs can survive without water for up to several months.
- For more information:
  - [www.sdfightthebite.com](http://www.sdfightthebite.com)
  - <http://www.sandiegocounty.gov/content/sdc/deh/pests/aedes.html>

### **Where have invasive *Aedes* mosquitoes been found in San Diego County?**

- Invasive *Aedes* mosquitoes have been found in locations throughout the county, but predominantly in areas south of the Interstate 8 freeway. The County of San Diego Vector Control Program continues to set special mosquito traps to detect these mosquitoes. When *Aedes* mosquitoes are detected in new areas of the County, Vector Control Program staff eliminate or treat the breeding sources and educate residents how to prevent mosquito breeding.

### **How are these mosquitoes different from the local native mosquitoes?**

- The breeding habits of these invasive *Aedes* mosquitoes are different than local native mosquitoes. These invasive mosquitoes primarily breed in small container sources often found at homes. Examples include plant saucers, buckets and even certain plants, like bromeliads, that can hold water for long periods of time. They do not breed in lakes and lagoons. With this type of breeding, it is especially critical that residents eliminate breeding sources on their property to help reduce these invasive mosquitoes.

### **How does the transmission of mosquito-borne diseases like Zika, dengue and chikungunya differ from West Nile virus?**

- The species of mosquitoes that transmit Zika, dengue, or chikungunya are different from the mosquitoes that transmit WNV.
- Unlike West Nile virus, Zika virus does not have an animal reservoir, such as birds. Instead, Zika virus is transmitted when a mosquito bites an infected person and then transmits it to another person that it bites.
- The mosquitoes that can transmit Zika, dengue and chikungunya are active during the day, fly relatively short distances (several hundred feet), are aggressive biters of people (both day and night), and tend to live in urban environments close to people.
- In contrast, the mosquitoes that transmit WNV are out at dusk and dawn, can fly longer distances (up to several miles), feed on people and other animals, and may be found in urban, suburban and rural environments.

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### What is the County doing to protect residents?

- The County Vector Control Program, Epidemiology Program, and Public Health Laboratory are working together to protect individuals in this region from getting the Zika virus.
- The **County Vector Control Program** conducts larval and adult mosquito surveillance and abatement, as well as educates the public on the principles of *Preventing* mosquito breeding, *Protecting* from mosquito bites and *Reporting* mosquito breeding sources. Specific efforts include:
  - Monitoring for mosquitoes;
  - Finding and eliminating mosquito breeding sources;
  - Killing mosquito larvae;
  - Targeting adult mosquitoes when necessary;
  - Responding to mosquito complaints from residents; and
  - Rapidly investigating premises where confirmed or suspect cases of imported Zika, dengue, chikungunya or yellow fever have been reported to Public Health Services (PHS).
- The **County Epidemiology Program** in PHS monitors reported cases of the Zika virus infection, provides consultation to local providers; notifies Vector Control when positive Zika cases are reported, who are currently infectious, to identify if *Aedes* mosquitoes are located nearby; updates the public about local cases and educates about the latest status of and protection against the Zika virus infection. This Program also conducts healthcare provider education, outreach and consultations:
  - PHS staff members are monitoring the developing Zika situation closely and are in frequent contact with the California Department of Public Health (CDPH) and Centers for Disease Control and Prevention (CDC) health officials.
  - PHS has been providing the latest CDC and CDPH guidance to local providers and health systems as they develop medical treatment protocols to evaluate possible Zika virus patients. Local health advisories are issued when updates are needed and a webpage has been established on the County website here:  
[http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community\\_epidemiology/dc/zika\\_virus.html](http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/zika_virus.html)
  - The Epidemiology Program consults with local providers on individual cases to determine who might need to be tested for Zika virus.
- The **County Public Health Laboratory** conducts laboratory testing for the Zika virus, so that the infection can be rapidly identified and managed to prevent local spread of the infection.

### If I am pregnant, how do I protect myself from mosquito bites?

- Zika is associated with birth defects that include microcephaly and other severe brain defects. There is no vaccine to prevent Zika virus infection. To prevent these neurological injuries to your child, pregnant women who go to areas with local Zika transmission should protect themselves from getting mosquito bites and from getting Zika from sexual encounters with partners that have been infected with Zika.
- Protect yourself from mosquito bites by:
  - **Using insect repellent:** The daytime is the most dangerous as the mosquitoes that spread Zika are aggressive daytime biters, but they can also bite at night.
  - **Wearing protective clothing:** Long-sleeved shirts or tops, long pants and use insect repellent on the clothing.
  - **Mosquito-proofing your home:** Use screens on your windows and doors, and use air conditioner, if it is possible. Turn over all standing water around you home to keep mosquitoes from laying eggs.
- Protect yourself from getting Zika from sexual contact:
  - If your partner has had symptoms for Zika or traveled to a Zika affected area, don't have sex during pregnancy, or use a condom the right way every time you are intimate with your partner.
  - Talk to your healthcare provider, if you have questions.
- For more information, see the following CDC resources:
  - Protect yourself from mosquito bites: <https://www.cdc.gov/zika/pdfs/zika-pregnancy.pdf>.
  - Pregnant and in an area with Zika: <https://www.cdc.gov/zika/pdfs/protect-your-pregnancy.pdf>.

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### How is the County monitoring for local transmission of Zika?

- While there is no current local transmission of Zika virus, the County is vigorously monitoring for local transmission by testing invasive *Aedes* mosquitoes, conducting enhanced laboratory testing, and monitoring local blood bank reported cases of Zika.

### How can you help?

1. **Prevent** mosquito breeding sites:
  - Every week, dump out and clean containers holding water (indoors as well as outdoors)
  - Fill plant saucers with sand or fine gravel so that pools of water do not form
2. **Protect** against mosquitoes:
  - Install and maintain screens on doors and windows
  - Apply insect repellents containing DEET, oil of lemon eucalyptus, picaridin, or IR3535
  - Wear long sleeves and pants
3. **Report** possible *Aedes aegypti* and *Aedes albopictus* activity if you:
  - Receive mosquito bites during the day
  - Find black mosquitoes with white stripesReport online  
[http://www.sandiegocounty.gov/content/sdc/deh/pests/Vector\\_Complaint\\_Form/VCP\\_complaint\\_form.html](http://www.sandiegocounty.gov/content/sdc/deh/pests/Vector_Complaint_Form/VCP_complaint_form.html)  
Or call the Vector Control Program (858) 694-2888  
Or email the Vector Control Program [vector@sdcounty.ca.gov](mailto:vector@sdcounty.ca.gov) (attach photographs of mosquitoes if possible)
4. **Travelers** going to Zika affected countries should protect themselves from mosquito bites and those returning should be alert for symptoms and seek care if they have any symptoms within two weeks of return.

### Where are additional resources to help protect myself?

- Anyone planning a trip should check the CDC travel alert website <http://wwwnc.cdc.gov/Travel> to see if the place they are travelling may have Zika virus or other infectious diseases. If locally transmitted Zika virus is present, the traveler should plan to protect themselves from mosquito bites.
- Any traveler returning from a country affected by Zika who has symptoms, such as fever, rash, joint pains, and red eyes, within two weeks should seek medical care and let their doctor know about their recent travel. <http://www.cdc.gov/zika/fs-posters/index.html>
- The California Department of Public Health (CDPH) has provided additional frequently asked questions at: <http://www.cdph.ca.gov/HealthInfo/discond/Documents/ZikaQandA.pdf>
- [The County of San Diego's Fight your Bite! website \(www.sdfightthebite.com\)](http://www.sdfightthebite.com) has tips on how to [Prevent mosquito breeding sites, Protect against mosquitoes, and Report possible mosquito activity.](#)