



HEALTH ADVISORY ZIKA VIRUS DISEASE

February 11, 2016

KEY UPDATES

- Clinicians may request Zika virus testing for any person (including pregnant women) with a compatible clinical presentation and history of travel to areas with ongoing Zika virus transmission in the 14 days before symptom onset.
- Clinicians may request serologic testing for pregnant women without symptoms who have traveled to areas with ongoing Zika virus transmission, between 2 and 12 weeks after travel.
- Further guidance for management of pregnant women with travel history to areas with ongoing Zika transmission can be found in updated Centers for Disease Control and Prevention (CDC) guidelines at http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e2.htm?s_cid=mm6505e2.htm_w.
- All specimens accepted for Zika PCR testing will also be tested by PCR for Dengue and Chikungunya viruses.
- CDC recommends that men who reside in or have traveled to an area of active Zika virus transmission and who have a pregnant partner, regardless of symptoms, should abstain from sexual activity or consistently and correctly use condoms during sex for the duration of the pregnancy.
- Men who reside in or have traveled to an area of active Zika virus transmission who have a non-pregnant partner but are concerned about sexual transmission of Zika may consider abstaining from sexual activity or consistently and correctly using condoms during sex until further guidance is available.
- Alameda County Public Health Department (ACPHD) must approve all Zika testing requests and Zika specimen laboratory guidance is evolving. Check our website <http://www.acphd.org/zika/specimen-submission.aspx> for the most up-to-date forms and instructions - see below for guidance as of 2/11/16.

SITUATION

As of 2/5/16, many countries and territories in Latin America, the Caribbean, Oceania/Pacific Islands and Cape Verde in Africa have reported active Zika virus transmission. See <http://www.cdc.gov/zika/geo/index.html> for updated countries and <http://wwwnc.cdc.gov/travel/notices/> for travel notices. In California, six travel-associated Zika cases were reported between 2013 and 2015. On 2/9/16, ACPHD confirmed an Alameda County resident has preliminarily tested positive for the Zika virus. The person was infected with Zika virus while traveling in a Zika-affected country. Updated case counts will be available weekly on Fridays. For statewide case counts, see the California Department of Public Health Zika website <https://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx>.

ACTIONS REQUESTED OF CLINICIANS:

1. **OBTAIN TRAVEL HISTORY** from patients with a febrile illness.
2. **CONSIDER ZIKATESTING** for any person including pregnant women with a compatible clinical presentation (two or more of the following: fever, maculopapular rash, joint pain, non-purulent conjunctivitis) and a history of travel to areas with ongoing transmission in the 14 days before symptom onset.
3. **CONSIDER ZIKA SEROLOGY** for pregnant women without symptoms who have a history of travel to areas with ongoing transmission; specimens should be collected between 2 and 12 weeks after travel.
4. **FAX the ZIKA VIRUS TESTING FORM to PUBLIC HEALTH at 510-268-2111** to obtain approval and receive further instructions prior to sending specimens.
5. **COUNSEL PATIENTS** who are pregnant or who are attempting to become pregnant about special travel precautions and preventing mosquito bites.
6. **REPORT** suspected or confirmed cases of dengue, chikungunya, or zika virus disease to ACPHD Acute Communicable Disease Unit (ACD) by faxing a Confidential Morbidity Report form to 510-268-2111.



**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
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CLINICAL PRESENTATION

Acute Zika virus disease: An estimated 80% of persons infected with Zika virus are asymptomatic. If symptoms occur, they usually begin 3-7 days after exposure, and commonly include fever, maculopapular rash (90%), joint pain, and/or nonpurulent conjunctivitis. **To meet clinical criteria for Zika infection, 2 or more of these symptoms must be present within 14 days of travel to a country with Zika transmission.** Symptoms are generally mild and self limited, lasting several days to a week. Zika infections have been associated with Guillain-Barré syndrome, meningitis/encephalitis, or myelitis but these outcomes are uncommon. There is no specific treatment or vaccine. Symptoms of Zika overlap with those of dengue and chikungunya, and all 3 diseases should be considered in a returning traveler from Latin America, the Caribbean, Oceania/Pacific Islands, or Cape Verde in Africa.

There have been reports of microcephaly and other poor outcomes in infants of mothers who were infected with Zika virus while pregnant, and an unusual increase in reports of microcephaly has been noted in regions of Brazil with active Zika transmission and a high prevalence of suspected Zika cases. The full spectrum of clinical outcomes associated with Zika virus infection during pregnancy is unknown, evidence linking Zika virus infection and these outcomes is evolving, and the role of other contributory factors remains unclear.

TRANSMISSION

Zika virus is typically transmitted by *Aedes aegypti* and *Aedes albopictus* (invasive *Aedes spp.*) mosquitoes. Although not native to California, invasive *Aedes spp.* mosquitos have been detected in 12 California counties; *Aedes aegypti* mosquitoes have been [detected once in Alameda County](#) but are not established here. Perinatal, in utero, and rare sexual and transfusion transmission events have also been reported. Zika virus has been detected in urine and saliva, as well as in breast milk of viremic mothers. At this time, there is no evidence of Zika transmission by exposure to these fluids and no reported cases of transmission by breastfeeding. Thus far, Zika virus infections in California have only been reported in returning travelers.

LABORATORY TESTING

Testing approval:

Zika virus testing must be approved by the ACPHD Acute Communicable Disease Unit (ACD). To request Zika testing approval, fax the [Alameda County Zika Virus Testing Request Form](#) to 510-268-2111. Zika testing is currently only available at the CDC. ACD must approve Zika virus testing for patients who are residents of Alameda County (for City of Berkeley residents, Berkeley Public Health must be consulted). Test requests will be reviewed by ACD and the clinician will be contacted with further instructions. **Specimens shipped directly to CDC and CDPH will not be tested for Zika without ACD approval.**

Testing criteria:

1. Patients (including pregnant women) with 2 or more symptoms of acute Zika virus disease (fever, maculopapular rash, arthralgias, and/or non-purulent conjunctivitis) **AND** a history of travel to areas with ongoing Zika transmission within 14 days of onset
OR
2. Asymptomatic pregnant women who have a history of travel to areas with ongoing Zika transmission, between 2 and 12 weeks after travel.

Specimen collection:

1. For all suspect cases of Zika virus infection approved for testing, collect, preferably, two (2) tubes of 2 ml of serum. For testing of amniotic fluid, CSF or tissues, please consult ACD at 510-267-3250 prior to collection.
2. Plasma is acceptable, though serum is preferred. If plasma is provided, please collect the same amount and volume, as above; only EDTA or Sodium Citrate plasma tubes are acceptable for testing.



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Specimen storage and shipping:

1. Zika virus testing specimens should be stored refrigerated (4°C) for no longer than 72 hours. Specimens to be stored longer than 72 hours must be frozen at -20°C or below; note that serum should be separated from clot prior to freezing. Transport refrigerated specimens on cold packs. Frozen specimens should be transported frozen.
2. **All specimens approved for testing must be submitted with 2 request forms. ACD staff will assist in completing these forms.**
 - California Department of Public Health VRDL General Submittal Form:
https://www.cdph.ca.gov/programs/vrdl/Documents/VRDL_General_Human_Specimen_Submittal_Form_Lab300.pdf
 - CDC specimen submission form 50.34: <http://www.cdc.gov/laboratory/specimen-submission/form.html>.
 - **Fax completed copy of CDC form to ACD at 510-268-2111**
 - **Submit original hard copies of both VRDL and CDC forms with laboratory specimens**
3. Ship specimens and forms to the Alameda County Public Health Laboratory at the address below. Specimens must be received between 8:30 am and 5 pm, Monday-Friday, excluding holidays.
Alameda County Public Health Laboratory
2901 Peralta Oaks Ct. Room 206
Oakland, CA 94605
4. Contact the Alameda County Public Health Laboratory directly at 510-382-4300 with questions about specimen collection, storage or shipping.

TRAVEL PRECAUTIONS & PREVENTION

Unchanged since 1/29/16 ACPHD Zika Health advisory; see <http://www.cdc.gov/zika/pregnancy/question-answers.html> for more information.

INFECTION CONTROL

Standard precautions should be implemented for suspect and confirmed cases of Zika virus infection, dengue fever, or chikungunya virus infection.

REPORT CASES

Suspected or confirmed Zika virus infection and chikungunya virus infection are reportable to Public Health as Unusual Occurrence of Disease. Dengue fever is also reportable to Public Health. Fax a Confidential Morbidity Report (<http://www.acphd.org/media/127468/cdph110a.pdf>) to the ACPHD ACD at (510) 268-2111 immediately upon identification.

RESOURCES

Alameda County Public Health Department Zika Virus <http://www.acphd.org/zika.aspx>

ACPHD Specimen Submission: <http://www.acphd.org/zika/specimen-submission.aspx>

CDPH Health Advisory, February 8, 2016:

<https://www.cdph.ca.gov/HealthInfo/discond/Documents/ZikaHealthAdvisoryforCAHealthcareProviders.pdf>

CDPH Zika Virus: <http://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx>

CDC Zika Virus general information: <http://www.cdc.gov/zika/>

CDC list of Zika-affected areas: <http://www.cdc.gov/zika/geo/index.html>

Travel notices related to Zika virus: <http://wwwnc.cdc.gov/travel/notices>

CDC Update: Interim Guidelines for Health Care Providers Caring for Pregnant Women and Women of Reproductive Age with Possible Zika Virus Exposure — United States, 2016 - 2/5/16:

http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e2.htm?s_cid=mm6505e2.htm_w



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CDC Interim Guidelines for the Evaluation and Testing of Infants with Possible Congenital Zika Virus Infection – United States, 2016- 1/26/16: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e3.htm>

CDC Interim Guidelines for Prevention of Sexual Transmission of Zika Virus — United States, 2016 – 2/5/16: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e1er.htm>

CDC Notes from the Field: Evidence of Zika Virus Infection in Brain and Placental Tissues from Two Congenitally Infected Newborns and Two Fetal Losses — Brazil, 2015 - 2/10/16: http://www.cdc.gov/mmwr/volumes/65/wr/mm6506e1er.htm?s_cid=mm6506e1er_e