



HEALTH ADVISORY UPDATE
MARCH 16, 2018
ZIKA VIRUS

SUMMARY:

Zika virus infection during pregnancy continues to be of great concern due to the potential for Zika associated birth defects. But because of the declining incidence of new Zika virus infections in California, the California Department of Public Health (CDPH) has issued new guidelines for the management of pregnant women with possible Zika virus exposure. The declining rate of Zika virus infections, coupled with the inherent limitations of Zika virus testing, has lowered the pre-test probability of infection, further complicating test interpretation. Please see CDPH's "Updated Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure" for details and rationale. <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/ZikaInformationforHealthProfessionals.aspx>

UPDATE:

Zika virus testing by detection of viral RNA by PCR (nucleic acid testing, NAT) or serology (IgM antibody testing) is now widely available in commercial clinical laboratories throughout California. Please submit your specimens to commercial laboratories for processing using your regular clinical testing protocol. When needed, local public health laboratories and CDPH will conduct confirmatory Zika virus testing (plaque reduction neutralization testing, PRNT), which is not a commercially available test.

Actions Requested of Healthcare Professionals:

1. **Advise** pregnant patients *not* to travel to areas with Zika virus transmission. For non-pregnant patients and pregnant patients who cannot avoid travel, educate on how to avoid mosquito bites and potential sexual transmission. Refer travelers to CDC Travel Advisories for current information about Zika virus and prevention: <http://wwwnc.cdc.gov/travel/notices>
2. **Assess all pregnant women for possible Zika virus exposure** at each prenatal care visit. The following topics should be reviewed: 1) recent travel or residence in an area with active Zika transmission, and 2) unprotected sex (vaginal, anal or oral sex, or sharing of sex toys without using a barrier method) with a partner who has traveled to or lived in an area with active Zika transmission.
3. **Suspect Zika** (also consider Dengue and Chikungunya) in travelers with acute onset of fever, rash, arthralgia, myalgia or conjunctivitis within 2 weeks after: 1) return from an area with local Zika transmission or 2) unprotected sex with a partner who has traveled to or lives in an area with known Zika transmission.
4. **Report** non-negative (positive or indeterminate) cases of Zika virus infection and possible congenital exposure to Contra Costa Public Health by faxing the 'Zika Case History Form' (<http://cchealth.org/cd/pdf/Zika-Case-History-Form.pdf>) to 925-313-6465.
5. **Test** patients by sending appropriate specimens to your contracted clinical commercial laboratory. See below for details about testing and specimen collection.

WHO TO TEST:

TESTING BY EXPOSURE GROUPS

- **Pregnant women with symptoms of Zika virus disease (acute onset of fever, rash, arthralgia, or conjunctivitis).**
 - Testing should be done as soon as possible.
- **Asymptomatic pregnant women with ongoing possible Zika virus exposure**
 - Zika IgM antibody and PCR testing may be considered after pre-test counseling and individualized risk assessment for those with an appropriate exposure history (e.g., exposure limited to current pregnancy), but is not routinely recommended.
- **Asymptomatic pregnant women with recent but without ongoing exposure**
 - May not be routinely tested but instead should be assessed carefully for factors that increase the likelihood of Zika infection.
 - A patient's risk tolerance and decision-making regarding pregnancy may be sufficient justification to test for Zika virus infection.
- **Pregnant women who have recent possible Zika virus exposure and who have a fetus with prenatal ultrasound findings consistent with congenital Zika virus syndrome**
 - Should receive Zika virus testing to assist in establishing the etiology of the birth defects.
- **Infants/Neonates with:**
 - Exposure occurring at any time during mother's pregnancy,
 - Born to a mother with a positive or inconclusive laboratory result,
 - Possible congenital Zika virus infection (microcephaly at birth, intracranial calcifications detected prenatally or at birth, or other brain or eye abnormalities consistent with Zika virus infection or symptoms consistent with acute Zika virus infection within 2 weeks of birth).
- **Symptomatic non-pregnant travelers or sexual partners of travelers with possible Zika virus exposure**
 - Not high priority unless attempting pregnancy or sexual partner is pregnant or trying to become pregnant.

EXPOSURE IS DEFINED AS:

- Recent travel to an area with risk of Zika virus*
- Resident of an area with risk of Zika virus*
- Recent unprotected sexual contact with
 - a male who has traveled in the past 6 months to an area with risk of Zika virus
 - a female who has traveled in the past 8 weeks to an area with risk of Zika virus

* Map of Areas with Zika: (<https://wwwnc.cdc.gov/travel/page/world-map-areas-with-zika>)



How to Test for Zika Virus in Adults

	Pregnancy Status¹	Zika Virus RNA [i.e. PCR, NAT, or NAA] (Serum & Urine)	Zika Virus Antibody, IgM (Serum)
Symptomatic (onset ≤12 weeks)	Pregnant	✓	✓
	Non-Pregnant	✓	✓
Asymptomatic*	Pregnant without Ongoing Exposure (not routinely tested – see text)	✓ (exposure ≤ 12 weeks ago)	✓
	Pregnant with Ongoing Exposure	✓	✓ (once a trimester)
	Pregnant with Abnormal Ultrasound Findings Suspicious for Zika Infection	✓	✓

* Prolonged IgM persistence may make it challenging to determine whether the infection occurred during the current pregnancy or prior to the current pregnancy.

How to Test for Zika Virus in Infants/ Neonates² (ideally, samples should be collected within 2 days of life)

	Status at Birth	Zika Virus RNA [i.e. PCR, NAT, NAA] (Serum & Urine)	Zika Virus Antibody, IgM (Serum)
Babies of Mothers Infected with Zika	Non-negative mother (positive or indeterminate for Zika)	✓	✓
Babies with Congenital Zika Infection	Abnormal findings consistent with Zika infection at Birth	✓	✓
	Zika Symptoms within 2 weeks of birth	✓ (consider testing CSF)	✓

¹ Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure — United States Including U.S. Territories. (MMWR, July 2017)
https://www.cdc.gov/mmwr/volumes/66/wr/mm6629e1.htm?s_cid=mm6629e1_w

² Update: Interim Guidance for the Diagnosis, Evaluation, and Management of Infants with Possible Congenital Zika Virus Infection — United States, October 2017 (MMWR, October 2017)
<https://www.cdc.gov/mmwr/volumes/66/wr/mm6641a1.htm>



TREATMENT

- There is no specific treatment for Zika infection; clinical guidance is to provide supportive care including rest, fluids, and use of analgesics and antipyretics (after Dengue has been ruled out).

PREVENTION

- Pregnant women **should not** travel to any area where Zika virus is spreading.
- Preventing mosquito bites is the main control measure to avoid becoming infected.
- Persons with Zika virus exposure can pass the infection to sex partners. A correctly used barrier method (condoms or dental dams) can reduce the risk of Zika transmission.
- Counsel patients about pregnancy planning and the timing of pregnancy after possible exposure to Zika virus.
 - Pregnant couples in which one or both partners have traveled to or live in an area with Zika should **use a condom (or other barriers to prevent infection) every time** they have sex, should not share sex toys and/or should not have sex during the pregnancy.
 - Couples interested in conceiving should wait to get pregnant.
 - Women, regardless of symptom status, should wait **at least 8 weeks** from symptom onset (if symptomatic) or last possible exposure (if asymptomatic) to attempt conception.
 - Men, regardless of symptom status, wait **at least 6 months** from symptom onset (if symptomatic) or last possible exposure (if asymptomatic) before attempting conception with their partner. Zika virus can be detected in semen for a longer period of time than in blood.

RESOURCES:

- Zika Travel Information: (<https://wwwnc.cdc.gov/travel/page/zika-travel-information>)
- Practice Advisory: Zika Prevention Strategies and Clinical Management of Pregnant Women (American College of Obstetricians and Gynecologists [ACOG] and the Society for Maternal-Fetal Medicine [SMFM]) (<https://www.acog.org/About-ACOG/ACOG-Departments/Zika-Virus>)
- Update: Interim Guidance for Preconception Counseling and Prevention of Sexual Transmission of Zika Virus for Persons with Possible Zika Virus Exposure — United States (MMWR, September 2016) (<http://www.cdc.gov/mmwr/volumes/65/wr/mm6539e1.htm>)
- CDC Guidance For Healthcare Providers, Zika in Infants and Children, Evaluation and Testing (<https://www.cdc.gov/pregnancy/zika/testing-follow-up/evaluation-testing.html>)
- Interim Guidance for Interpretation of Zika Virus Antibody Test Results (MMWR, May 2016) (<http://www.cdc.gov/mmwr/volumes/65/wr/mm6521e1.htm>)
- CDC Roadmap for Babies of Mothers Infected with Zika During Pregnancy who Appear Healthy (<https://www.cdc.gov/zika/pdfs/roadmap-for-parents-babies-infected-before-birth.pdf>)
- CDC Roadmap for Babies with Congenital Zika Infection (<https://www.cdc.gov/zika/pdfs/roadmap-for-parents.pdf>)

