

ZIKA TESTING GUIDANCE

Last Updated: 09/20/2017

WHO TO TEST:

- See ODH Zika Virus Testing Recommendations page 2 & 3 for a detailed algorithm
- Guidance for testing of infants and children with possible congenital or perinatal *Zika virus* infection at <http://www.cdc.gov/zika/hc-providers/ga-pediatrician.html>.
- Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus at cdc.gov/mmwr/volumes/66/wr/mm6629e1.htm s_cid=mm6629e1_w

For a current list of Zika-affected countries visit www.cdc.gov/zika/geo/active-countries.html.



HOW TO TEST:

1. See page 4 for details on specimen collection
2. See page 5 for details on specimen shipping and reporting to IDRS

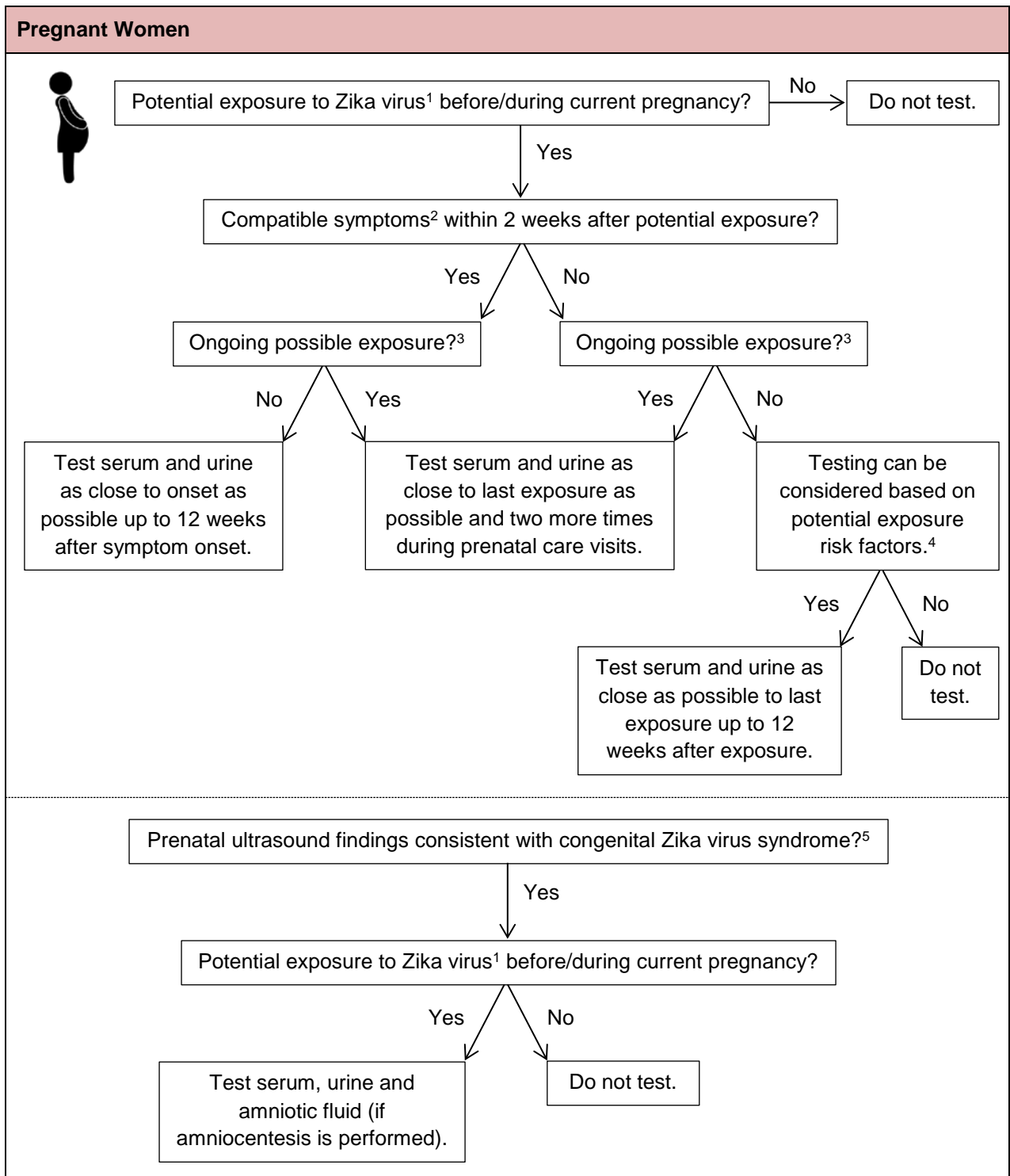
For more information about testing and the forms above, go to www.IDRSinfo.org.



ADVISING PATIENTS REGARDING PREVENTION:

- **Women who are pregnant or trying to get pregnant should avoid travel to Zika-affected areas.**
- **Zika can be transmitted through semen. All men who have been in a Zika-affected area should use condoms correctly every time for all vaginal, anal and oral sex or abstain from sex.**
- **Prevent mosquito bites while traveling and for three weeks after you return:**
 - Use EPA-registered insect repellents according to the product label.
 - Wear long-sleeved shirts and pants when weather permits.
 - Use air conditioning when possible.
 - Check and repair window or door screens around your home.
 - Empty or get rid of standing water around your home.





¹ Traveled to or resided in an area with risk of Zika virus transmission OR sexual contact to a traveler to or resident of an area with risk of Zika virus transmission: <http://www.cdc.gov/zika/geo>.

² Compatible symptoms: fever, conjunctivitis, rash and/or arthralgia (joint pain).

³ Ongoing possible exposure: those who reside in or frequently travel (daily, weekly) to areas at risk for Zika virus transmission.

⁴ Potential exposure risk factors: symptoms, type and length of possible exposure, Zika virus transmission trends at location of possible exposure, use of prevention measures.

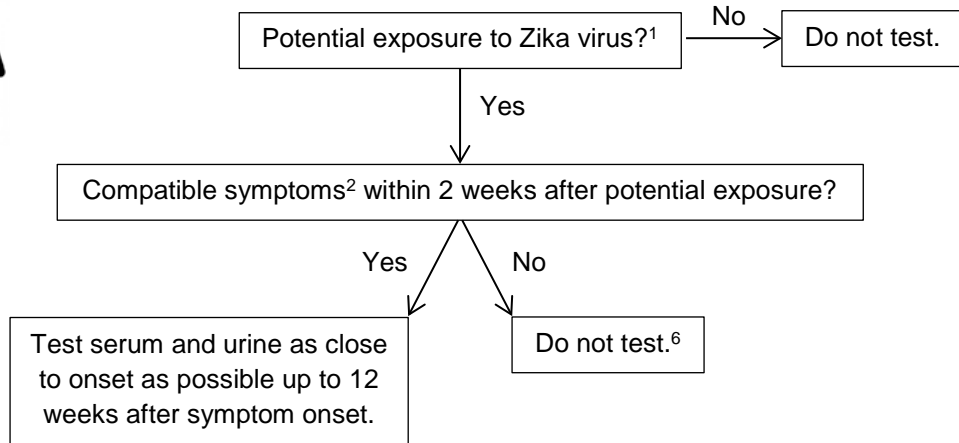
⁵ Congenital Zika syndrome: http://www.cdc.gov/zika/healtheffects/birth_defects.html.

⁶ Pre-conception screening and baseline serum screening are not recommended.

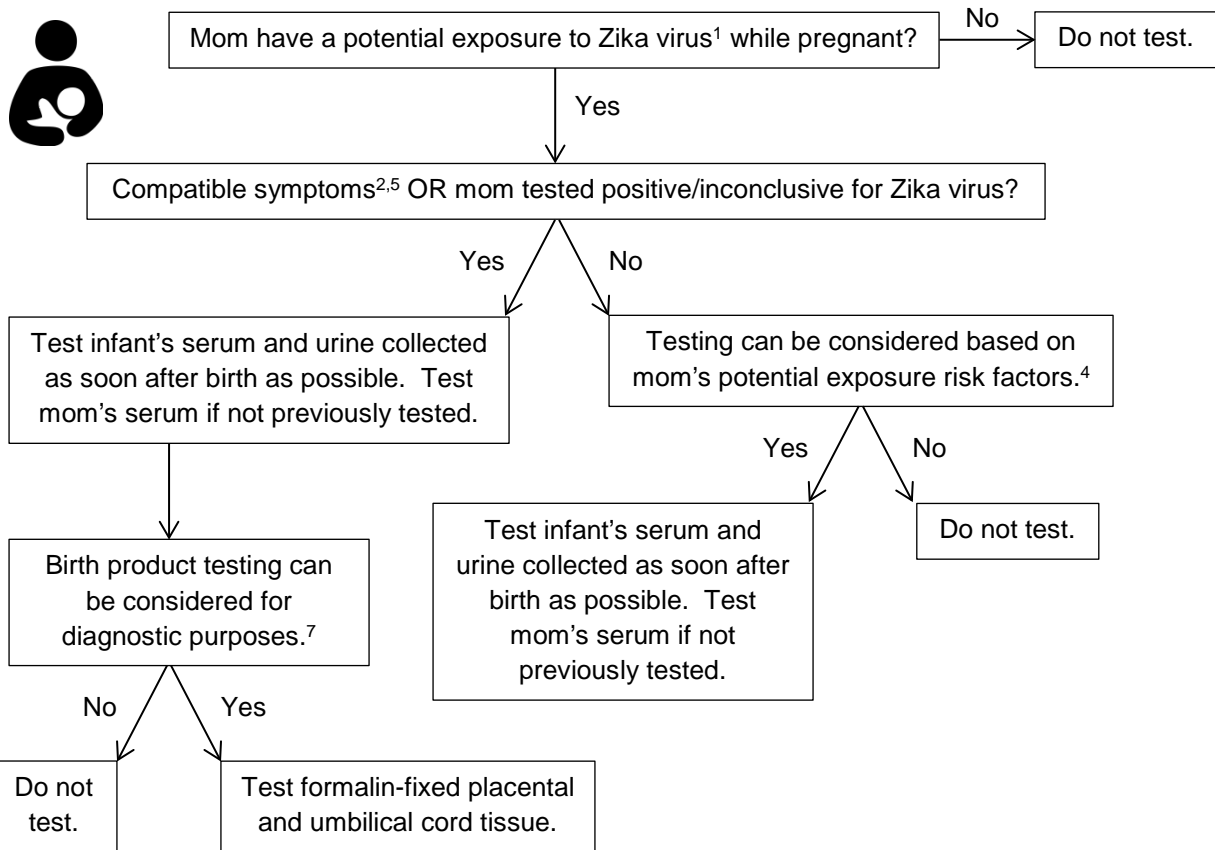
⁷ Diagnostic purposes: symptomatic pregnant women and infants with possible Zika virus-associated birth defects without laboratory-confirmed Zika virus infection during pregnancy

Contact the Ohio Department of Health Bureau of Infectious Diseases at (614) 995-5599 for questions related to Zika virus testing.

Men, Non-Pregnant Women, Couples Trying to Become Pregnant and Children



Infants (Possible Congenital Infection)



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² Compatible symptoms: fever, conjunctivitis, rash and/or arthralgia (joint pain).

³ Ongoing possible exposure: those who reside in or frequently travel (daily, weekly) to areas at risk for Zika virus transmission.

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⁷ Diagnostic purposes: symptomatic pregnant women and infants with possible Zika virus-associated birth defects without laboratory-confirmed Zika virus infection during pregnancy

Specimen Collection:

- **Serum:** Single serum specimens are acceptable for Zika virus real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) and antibody testing. A convalescent serum specimen may be requested depending on results of acute specimen testing.
 - Collect 1.0 mL of blood into a serum separator tube.
 - Keep the serum refrigerated until ready to ship.
- **Whole blood*:** Zika virus rRT-PCR testing can be performed on whole blood.
 - Collect 1.0 mL of whole blood in an EDTA or other anticoagulant tube.
 - Keep the blood refrigerated until ready to ship.
- **Cerebrospinal fluid*:** Cerebrospinal fluid specimens are acceptable for Zika virus rRT-PCR and antibody testing, although they should only be submitted if collected for other purposes.
 - Collect 1.0 mL of cerebrospinal fluid into a tube.
 - Keep the specimen refrigerated until ready to ship.
- **Amniotic fluid*:** rRT-PCR and virus isolation can be performed on amniotic fluid, although the performance of rRT-PCR testing of amniotic fluid for Zika virus infection is currently unknown. Amniotic fluid should only be submitted if an amniocentesis is being performed.
 - Collect 1.0 mL of amniotic fluid in a sterile container.
 - Keep the specimen refrigerated until ready to ship.
- **Urine*:** rRT-PCR can be performed on urine. If urine is collected, a serum specimen for the patient must be collected as well for testing. Further information is available on [CDC's Zika website](#).
 - Collect 1.0 mL of urine in a sterile container.
 - Keep the specimen(s) refrigerated until ready to ship.
- **Other body fluid*:** rRT-PCR and virus isolation can be performed on other body fluids, such as semen and saliva. However, the performance of RT-PCR testing of other body fluids for Zika virus infection is currently unknown. Further information is available on [CDC's Zika website](#).
 - Collect 1.0 mL of semen in a sterile container. Urine should be collected before semen if both are being submitted for the same person.
 - Collect saliva with a dry cotton swab and place in a tube with 1.0 mL of viral transport media.
 - Keep the specimen(s) refrigerated until ready to ship.
- **Fetal tissues*:** Tissues may be submitted for infants or fetuses with suspected congenital infection for rRT-PCR, antibody testing, histopathology, or immunohistochemical staining. Fetal tissues may include cord blood, placental tissue, brain tissue, or autopsy tissues. Further information is available on [CDC's Zika website](#).
 - Provide both formalin-fixed (preferred) and frozen tissues for each type of tissue submitted; if it's not possible to submit both, prioritize formalin-fixed tissues.
 - Collect brain tissue, maintaining the structure of the brain architecture for evaluation of viral neuropathology.
 - Sample placental tissue extensively, including full thickness pieces, section of the placental disk, membranes, umbilical cord, and pathologic lesions when possible.
 - Provide 0.5-1.0 cm of autopsy samples of each major organ (heart, lungs, liver, kidneys, skeletal muscle, bone marrow). Sampling of the eyes is highly recommended.
 - Place tissues into sterile containers containing adequate formalin.
 - Store frozen tissues at -70°C until ready to ship.
 - Keep fixed tissues at room temperature until ready to ship.

* If submitting a specimen other than serum, a serum specimen must also be submitted for the patient.

Specimen Shipping:

- Notify the local health department where the patient resides about the suspected case.
- Complete the [Ohio Department of Health \(ODH\) Mosquito-borne Illness Case Investigation Form](#) to accompany the specimen(s).
 - Fully complete the required sections, any missing information can delay a specimen's testing time:
 - Patient
 - Course
 - Medical
 - Epidemiological Information
 - We recommend that the patient's provider completes this form, preferably at the medical visit, and attaches it to the lab order for specimen draw.
 - Fax a copy of the Mosquito-borne Illness Case Investigation Form to (614) 525-8890.
- Complete [ODH Lab's Microbiology Submission](#) Form to accompany the specimen(s).
 - Enter "Zika virus" in the Agent Suspected field.
 - Fill in the bubble appropriately in the Specimen Type & Site section.
- It is no longer required to submit CDC's specimen submission form along with your specimen(s).
- Ship serum, cerebrospinal fluid, amniotic fluid, urine, and other body fluids on frozen freeze packs.
- Ship frozen tissues on dry ice.
- Ship fixed tissues at room temperature and separate from specimens requiring freeze packs or dry ice.
- Do not ship specimens for weekend delivery unless otherwise instructed by ODH Laboratory.
- Ship specimens to Ohio Department of Health Laboratory

ATTN: Microbiology Labs
8995 E. Main St.
Building 22
Reynoldsburg, OH 43068

Contact Information:

- IDRS
 - Phone: (614) 525-8888
 - E-mail: ids@franklincountyohio.gov
- ODH Zoonotic Disease Program- Bureau of Infectious Diseases
 - Phone: (614) 995-5599
 - E-mail: Zoonoses@odh.ohio.gov
- ODH Laboratory
 - Phone: (888) ODH-LABS
 - E-mail: ODHLabs@odh.ohio.gov