CDC's Response to **Zika**

INTERIM GUIDANCE FOR ZIKA VIRUS TESTING* OF FORMALIN-FIXED, PARAFFIN-EMBEDDED PLACENTAL, FETAL, OR INFANT AUTOPSY TISSUES†

For completed pregnancies with possible maternal Zika virus exposure § during pregnancy ¶

MATERNAL ZIKA VIRUS TEST RESULTS ON NONTISSUE CLINICAL SPECIMENS (e.g., serum, urine)					
Pregnancy outcome	**Acute Zika virus infection ****	**Zika virus infection; timing of infection cannot be determined ††**	**Flavivirus infection; timing of infection cannot be determined**	**> 12 weeks after symptom onset or exposure,§§ with either negative maternal Zika virus IgM, or no maternal testing conducted**	**No evidence of Zika virus infection ¶¶**
TESTING OF PLACENTAL TISSUES					
Live birth, possible Zika virus–associated birth defects ***	Not indicated †††	Should be considered to aid in maternal diagnosis.			Not indicated †††
Live birth, no obvious Zika virus–associated birth defects at birth	Not indicated	May be considered to aid in maternal diagnosis on a case-by-case and jurisdictional basis. Not routinely recommended for asymptomatic women with possible Zika virus exposure but *without ongoing* possible exposure.			Not indicated
TESTING OF PLACENTAL AND FETAL TISSUES					
Pregnancy loss, possible Zika virus–associated birth defects	May be considered to aid in fetal diagnosis.	May be considered to aid in fetal and maternal diagnosis.			Not indicated †††
Pregnancy loss, no obvious Zika virus–associated birth defects	May be considered to aid in fetal diagnosis.	May be considered to aid in fetal and maternal diagnosis.			Not indicated †††
TESTING OF PLACENTAL AND INFANT AUTOPSY TISSUES					
Infant death following live birth	Should be considered to aid in infant diagnosis.	Should be considered to aid in infant and maternal diagnosis.			Not indicated †††

Abbreviations: IHC = immunohistochemistry; NAT = nucleic acid testing; RT-PCR = reverse-transcription polymerase chain reaction.

* Zika virus testing on formalin-fixed, paraffin embedded tissue specimens is conducted at CDC's Infectious Diseases Pathology Branch (IDPB) and includes Zika virus RT-PCR on placental and fetal/infant tissues. Zika virus IHC may be performed on placental tissues into the second trimester, fetal tissues from any gestational age, and infant autopsy tissues.

† Placental tissues include placental disc, umbilical cord, and fetal membranes. Zika virus RNA can be focal within placental tissues, and testing of three sections of placenta, one section of umbilical cord, and one section of fetal membrane is recommended (https://www.cdc.gov/zika/laboratories/test-specimens-tissues.html). For pregnancy losses and infant deaths, submission of placental tissues in addition to fetal or infant autopsy tissues, if available, is preferred, but if not available will not preclude placental testing.

§ Possible Zika virus exposure includes travel to or residence in an area with risk for Zika virus transmission (https://www.cdc.gov/zika/geo/index.html) during pregnancy or the periconceptional period (8 weeks before conception [6 weeks before the last menstrual period]), or sex without a condom, during pregnancy or the periconceptional period, with a partner who traveled to, or resides in an area with risk for Zika virus transmission. Persons with ongoing possible exposure include those who reside in or frequently travel (e.g., daily or weekly) to an area with risk for Zika virus transmission.

¶ Zika virus testing is not routinely recommended for asymptomatic pregnant women with recent possible Zika virus exposure but ***without ongoing*** possible exposure and who have a fetus or infant without Zika virus–associated birth defects.

** In the event of a confirmed maternal acute Zika virus infection or confirmed congenital Zika virus infection in the infant (e.g., a positive NAT), placental testing from live births is not indicated. Currently, placental testing does not routinely provide additional diagnostic information in the setting of a maternal or infant diagnosis of acute or congenital Zika virus infection, respectively.

†† For women with no possible Zika virus exposure before the current pregnancy, a positive IgM result likely represents acute Zika virus infection, and placental testing is not indicated.

§§ All or part of possible maternal Zika virus exposure, or symptom onset occurred >12 weeks before maternal serum specimen was collected.

¶¶ Includes pregnant women with negative Zika virus NAT and negative Zika virus IgM ≤12 weeks after symptom onset or exposure.

*** Possible Zika virus–associated birth defects that meet the CDC surveillance case definition include the following: brain abnormalities and/or microcephaly, intracranial calcifications, ventriculomegaly, neural tube defects and other early brain malformations, eye abnormalities, or other consequences of central nervous system dysfunction including arthrogryposis (joint contractures), congenital hip dysplasia, and congenital deafness (https://www.cdc.gov/zika/geo/pregnancy-outcomes.html). In all cases, infants or fetuses with possible Zika virus–associated birth defects should also be evaluated for other etiologies of congenital anomalies.

††† Testing may be considered on a case-by-case basis, consult CDC for case-specific questions https://www.cdc.gov/zika/laboratories/test-specimens-tissues.html.

www.cdc.gov/mmwr/volumes/66/wr/mm6629e1.htm?s_cid=mm6629e1_w

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention