

Zika Virus Testing for Live Births Quick Reference Guide for Providers

Find all DOHMH provider documents at nyc.gov/health/provider/zika

Pre-approval is required for Zika testing of specimens at DOHMH
(See below for non-business hours requests)

**Call 866-692-3641 during business hours, Monday-Friday, 9:00AM-5:00PM
to obtain approval to test specimens collected from a live birth**

Please note the following changes:

- DOHMH is no longer routinely requesting fresh frozen placental specimens, unless otherwise discussed for an individual case. Formalin-fixed tissues are still requested, in certain cases, described below.
- DOHMH is no longer routinely requesting placental specimens for testing if maternal serum or urine RT-PCR was positive for Zika virus.
- DOHMH is no longer requesting cord blood for testing.

The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) will request infant specimens for Zika virus testing for all the cases described below. In addition, the DOHMH will request formalin-fixed placenta specimens for mothers who meet the descriptions for #2 and #3:

1. *Zika RNA detected on maternal serum or urine nucleic acid amplification test (NAAT). (NAAT includes RT-PCR, transcription mediated amplification, and other tests that detect Zika virus-specific RNA sequences.)*

- *Collect infant serum and urine*

OR

2. *Maternal serology reflects either (a) IgM positive where the Plaque Reduction Neutralization Test (PRNT) is pending, or (b) PRNT result suggests Zika virus infection or an undifferentiated flavivirus infection*

- *Collect fixed placenta, infant serum and infant urine*

OR

3. *Maternal test results unavailable or negative but mother was exposed to Zika virus through travel or unprotected sex, AND there are pre- or postnatal findings of microcephaly, intracranial calcifications, or other brain or eye abnormalities*

- *Collect fixed placenta, infant serum and infant urine*
- *If not previously tested, collect mother serum and urine*

WHAT TO DO

- During business hours, call the Provider Access Line at 866-692-3641 to discuss the case.
- During **non-business hours**, specimens may be collected, labeled and stored as outlined below.
- On the next business day, call the Provider Access Line at 866-692-3641 to discuss the case, obtain laboratory forms and arrange for transportation of specimens to the NYC Public Health Laboratory.
- All specimens must be labeled with **name, date of birth, date and time of specimen collection and description of specimen type**: “placenta,” “infant serum,” etc. For placental samples, label these specimens with the mother’s name / mother’s date of birth. For specimens collected directly from the infant, label these specimens with the infant’s name / infant’s date of birth.
- If specimens are approved for testing, DOHMH staff will work with health care providers to complete the required NYC Public Health Laboratory test request form for each specimen. DOHMH will e-mail/fax the

completed forms during business hours to the provider. Each form should be paired with the correct corresponding specimen. Place the form on the outer pocket of the submission bag and the specimen inside the bag.

- Fixed tissues should be maintained at room temperature. For all other specimens, freeze to -70°C. If no -70°C freezer is available, refrigerate at +4°C and transport on cold packs so that specimens arrive at the Public Health Laboratory within 72 hours of collection.

IMPORTANT

1. Inform patient/parent or guardian that specimens will be collected for Zika virus testing.
2. Keep copies of all laboratory forms completed for each specimen collected.

WHAT TO COLLECT

1. **Maternal serum** – **only** if woman not previously tested for Zika
 - Collect 2 tubes of blood, 6 ml in each, in serum separator tubes and centrifuge. Transfer the serum to a separate tube using sterile technique.
2. **Maternal urine** – **only** if woman not previously tested for Zika
 - Collect a minimum volume of 3 ml, maximum of 20 ml of urine in a sterile leak-proof container. Close tightly and seal with paraffin film.
3. **Placenta, umbilical cord** – Tissue should be sampled extensively, if possible. *Only formalin-fixed specimens are requested.*
 - **Fixed in formalin** – at least 3 full-thickness pieces (0.5-1 cm x 3-4 cm thick) from middle third of placenta and one from placental margin, including maternal and fetal sides of placenta, along with additional samples of fetal membranes, umbilical cord, and any pathologic lesion, if present.
 - May be refrigerated at +4°C for <24 hours until fixed in formalin.
 - Place the sections in a sterile cup containing formalin. Tightly close the lid.
 - Store formalin-fixed tissues at room temperature.
 - Paraffin blocks may be submitted as well.
4. **Infant serum** – collected directly from the infant within 2 days of birth
 - Minimum volume of **serum** required is 1.0 ml. Collect samples in serum separator tube to obtain total volume of 1.0 ml of serum (amount of whole blood required will be approximately 2.5-3 ml). Centrifuge and transfer serum to a separate tube.
5. **Infant urine**
 - Collect at least 1 cc of urine in a sterile leak-proof container, wrap in paraffin film, and label with infant's name and DOB.
 - Freeze the specimen to -70°C. If there is no -70°C freezer available, refrigerate at +4°C and transport on cold packs within 72 hours of collection.
6. **Infant CSF** – If CSF is obtained for other studies, aliquot a sample for Zika testing.
 - Collect in sterile container (15 or 50 ml tube). Close tightly, seal with paraffin film.
7. **Amniotic fluid** – If amniotic fluid is obtained for other reasons, it may be tested upon consultation with DOHMH.
 - Collect in sterile container (15 or 50 ml tube). Close tightly, seal with paraffin film.