

## Zika Virus Testing for Pregnancy Loss Quick Reference Guide for Providers

Find all DOHMH provider documents at [nyc.gov/health/provider/zika](http://nyc.gov/health/provider/zika)

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

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Call 866-692-3641, **during business hours, Monday-Friday, 9:00AM-5:00PM**, to obtain approval to test specimens that are collected after pregnancy loss

The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) may test specimens collected from pregnancy losses for Zika virus under the following circumstances:

1. Pre- or post-natal signs of microcephaly, intracranial calcifications, or other brain or eye abnormalities consistent with congenital Zika virus syndrome
- AND**
2. Laboratory evidence of maternal Zika virus infection:
    - Maternal serum or urine Zika NAAT<sup>1</sup> result is “Zika RNA Detected” **OR**
    - 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

### WHAT TO DO

- During business hours, call the Provider Access Line at 866-692-3641.
- 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, including fetal, must be labeled with **mother’s name, date of birth, date and time of specimen collection and description of specimen type**: “placenta,” “products of conception,” etc.
- 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.

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<sup>1</sup> Nucleic acid amplification testing (NAAT) includes RT-PCR, transcription mediated amplification (TMA) testing, and other tests that detect Zika virus-specific RNA (nucleic acid) sequences

## IMPORTANT

- Inform patient/parent or guardian that specimens will be collected for Zika virus testing.
- Keep copies of all 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 using sterile technique to a separate tube.
2. **Maternal urine – only** if woman not previously tested for Zika
  - Collect a minimum volume of 5 ml, maximum of 20 ml of urine in a sterile leak-proof container. Close tightly and seal with paraffin film.
3. **Amniotic fluid**
  - Amniotic fluid is not routinely requested for Zika testing. If available, amniotic fluid may be tested upon consultation with DOHMH.
  - Collect in sterile container (15 or 50 ml conical tube). Close tightly and seal with paraffin film.
4. **Tissue specimens** – Types of tissues available for evaluation will depend on gestational age of the fetus and collection procedure. *Both frozen and formalin-fixed specimens are preferred; if this is not possible, prioritize formalin-fixed tissues.*
5. Ensure that a portion of tissue or products of conception is sent for routine evaluation or cytogenetics, as needed, in addition to sending frozen and formalin-fixed specimens to the NYC Public Health Laboratory.
6. **Products of conception** – if individual organs and tissues are not easily identified on examination, collect any available tissue, with minimal disruption, and provide formalin-fixed and frozen specimens.
7. **Organ and tissue samples** – if individual organs or tissue types are easily identifiable, provide formalin-fixed and frozen specimens, prepared and stored like the placental tissues, described below
  - 0.5-1.0 cc samples from each major organ including brain (most important), eyes, heart, lungs, liver, kidneys, skeletal muscle and bone marrow.
8. **Placenta, umbilical cord** – Tissue should be sampled extensively, if possible. *Both frozen and formalin-fixed specimens are preferred; if this is not possible, prioritize formalin-fixed tissues.*
  - **Fixed in formalin** – at least 3 full-thickness pieces (0.5-1 cm x3-4 cm thick) from middle third of placenta and one from placental margin, including maternal and fetal sides of placenta, along with 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 lid.
    - Store formalin-fixed tissues at room temperature.
    - Paraffin blocks may be submitted as well.
  - **Fresh-frozen** – multiple specimens as listed above for formalin-fixed tissue:
    - Place above sections in a sterile container (without formalin). Tightly close lid.