

Montana Public Health Laboratory Guidance: Measles Testing



State communicable disease reporting rules require health care providers suspecting measles to report suspected cases to local public health authorities immediately. Public health authorities may implement immediate control measures to prevent transmission and/or arrange immediate transport of the specimen when warranted.

Specimen Criteria:

Collect the following specimens to test for measles infection at MTPHL:

- **Days 0-3 of rash onset:** collect Respiratory Specimen only (Throat, NP, Nasal Swab in viral transport media). You may also collect serum if the provider chooses.
- **Days 4-7 of rash onset:** collect Respiratory Specimen (Throat, NP, Nasal Swab) and Serum.
- **More than 7 days after rash onset:** collect Serum only.

Specimen Collection for PCR Testing:

Collect specimens as soon as possible after appearance of rash, and ideally within 3 days of rash onset. Detection can be possible up to day 7 following onset of rash. *Respiratory Specimen:* Throat, Nasopharyngeal, or Nasal Dacron swabs in viral transport media.

Consult with Public Health authorities regarding PCR testing prior to rash development of individuals who may have had a recent exposure to measles. A negative test result prior to rash onset does not rule out a measles infection. The patient should remain in quarantine and wait to be tested after rash develops.

Specimen Collection for IgM Testing:

For IgM testing, specimens must be collected >48 hours post rash onset.

- *Serum:* 1 – 2 ml of serum. Can be sent in a spun serum separator tube or can be poured off into a transport tube.

Transport Conditions:

- Keep *Respiratory specimens* cold, and transport with cold packs as soon as possible following specimen collection. Avoid repeat freeze-thaw cycles. If specimen transport is going to be delayed >24 hours, freeze the sample at -70°C and ship on dry ice.
- *Serum* specimens can be shipped cold (refrigerated) or frozen (preferable for IgM testing).

Submission Reminders:

*Please be sure to include the collection date and at least two patient identifiers (Name and DOB or medical record #) on the sample container.

*Use the online portal to order found at <https://labportal.hhs.mt.gov>. *For respiratory specimens, order Measles PCR. *For serology specimens, order Rubella IgM Serology (ND). *Be sure to select the appropriate specimen source when ordering. *For the Onset Date, enter the date of rash onset.

*Print the Requisition form, verify patient identifiers match the sample, and place the paperwork in the side pouch of the specimen bag. *Place the two specimens in separate specimen bags with the correct paperwork in each pouch. *Finally, create a manifest for all samples being shipped and place the manifest separately in the shipping container.

Specimens can be transported by [courier](#) (if available), UPS, or FedEx:

Montana Public Health Laboratory
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Helena, MT 59601

Please contact the Montana Public Health Laboratory at 1-800-821-7284 for more information and remember to report any suspect measles to your local health department.