

# Lab Testing for Measles at the Oregon State Public Health Laboratory (OSPHL)

Resource updated: 10/25/2019

Changes occur occasionally, for updated specimen collection information, visit [www.healthoregon.org/labtests](http://www.healthoregon.org/labtests).

## Criteria for testing\*

**NOTE: All specimens tested through OSPHL must be approved through your local and state public health authorities prior to submission.**

All patients with:

- Any rash illness with no other explanation for the clinical presentation, **and**
- Known exposure to a person with measles.

Providers should ask about exposure to infected individuals, travel (past month), and MMR vaccine history. This helps public health staff assess suspicion level, but providers should not rule-out a suspect diagnosis based on those factors alone.

Notes:

- Bring patients who suspect measles infection into the facility in a way that does not expose other patients (e.g., not sitting in a waiting area).
- Patient should be isolated to not expose others until measles is ruled out.
- Exam room should be closed for at least 2 hours after patient has left.

## General Specimen Information

### Specimens for real-time RT-PCR:

Collect specimens for PCR as soon as possible after rash onset. Ideally, collect within three days but no later than 10 days after rash onset.

- Swabs: See Page 2 for additional information.
  - **Nasopharyngeal swab is preferred specimen type.**
  - Nasal and oropharyngeal (throat) swabs are also acceptable.
- Urine: 10–50 mL in a sterile container.
  - Lower volumes are accepted but may yield indeterminate results.

## Specimen submission process

- **Collect** specimens as soon as possible after rash onset.
- **Complete** an [OSPHL Virology/Immunology Test Request Form](http://www.bitly.com/phl-forms). ([www.bitly.com/phl-forms](http://www.bitly.com/phl-forms))
  - Each specimen requires its own form.
  - Complete all required fields and indicate the requested test.
- **Label** all specimens with at least two patient identifiers that match the Test Request Form. Acceptable identifiers include: Full patient name; Date of birth; and Medical record number
- **Keep specimens cold:** Store and ship specimens at refrigerated temperatures. Ship on ice packs.
- **Report Suspect Case & Get Approval to test:** Contact your local public health authority (LPHA). Have the case information ready when you call. (e.g., name, date of birth, contact information, clinical presentation, exposure and vaccination history) Contact information: [www.healthoregon.org/lhddirectory](http://www.healthoregon.org/lhddirectory)
- The LPHA will obtain approval to test from State Public Health.
- **Send approved specimens** via overnight shipping to arrive Monday–Friday between 8 a.m. and 4:30 p.m. Specimens must be received within 72 hours of collection and on ice packs to be tested.

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If you need help transporting specimens, call the OSPHL at 503-693-4100 for courier transport.
- All specimens are subject to the requirements of the [OSPHL Specimen Submission Policy](#).

## Swab specimen collection

Use a synthetic swab, such as Dacron or rayon, on a plastic or metal shaft.

After the specimen is collected, insert swab into a tube containing 1-3 mL of Viral Transport Media (VTM) or Universal Transport Medium (UTM) and snap off end at the scored breakpoint.

Swabs not in acceptable media or wooden shafted or calcium alginate swabs are not acceptable for testing.

**Nasopharyngeal swab (preferred):** Rotate swab two to three times over surface of the posterior nasopharynx.

**Nasal swab:** Vigorously rotate 2 swabs against the nasal turbinate bilaterally.

**Oropharyngeal (throat) swabs:** Use a single swab to collect secretions from the posterior pharynx and tonsillar areas, avoiding the tongue and teeth.

## Results and turnaround

- Results for testing performed by the OSPHL will be sent via fax to the submitting facility.
- Turnaround time for PCR results is within 3 working days after receipt of the specimens at the OSPHL.
  - The OSPHL prioritizes measles testing whenever possible; results may be released sooner than the published turnaround time.

## Ordering supplies for testing

If your facility does not have the supplies needed to collect specimens, you may order specimen collection kits using the OSPHL Stockroom Order Request Form, posted at [www.bitly.com/phl-forms](http://www.bitly.com/phl-forms).

## Other Laboratory Testing

Measles serology testing is not available at the OSPHL. However, for highly suspect cases the LPHA may request a serum sample to be forwarded to the Washington State Public Health Laboratory for serology testing.

Measles testing can also be performed by commercial laboratories. If another laboratory will be used, please contact the laboratory for their requirements prior to specimen collection.

## Contact Information

Providing clinical care:

- Contact your local public health authority. Contact information is available at [www.healthoregon.org/lhddirectory](http://www.healthoregon.org/lhddirectory).
- Contact the State Acute and Communicable Disease Prevention section at 971-673-1111.

Specimen collection and submission questions:

- Contact the OSPHL Virology/Immunology testing section at 503-693-4100 or visit the OSPHL Lab Test Menu at [www.healthoregon.org/labtests](http://www.healthoregon.org/labtests).

**\*Note: This resource is designed for response to the current measles investigation. Different criteria for testing may apply when an active investigation is not occurring.**