



Missouri Department of Health and Senior Services

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RELAY MISSOURI for Hearing and Speech Impaired and Voice dial: 711

Paula F. Nickelson
Acting Director



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Missouri Department of Health and Senior Services State Public Health Laboratory Mumps Testing

For accurate diagnosis of mumps infection as part of a case investigation being conducted by a Local Public Health Agency or State Department of Health and Senior Services, please collect a Serology and Virus Isolation/RT-PCR specimen as described below. Before collecting and shipping specimens for Mumps testing, please call DHSS at 800/392-0272 (24/7). Note that before any specimen is sent for testing, DHSS staff must first be consulted. After consultation and determination that the patient meets the criteria for testing, you can contact the Missouri State Public Health Laboratory (MSPHL) at 573/751- 3334 or 800/392-0272 if you have questions regarding collection and shipping prior to collecting the specimens. This will help ensure that proper specimens are obtained in the right quantity, and that they are packed and transported properly. Mumps kits may be obtained by calling the MSPHL at 573/751-3334.

Serology:

Sera should be collected in a red-top blood tube as soon as possible after symptom onset for IgM testing. If paired sera are requested, the convalescent sera should be drawn 2-3 weeks later. Testing of single samples for IgG titer will not be performed. If the suspected cases had received one or more doses of MMR, the IgM response may be missing, delayed, or transient.

Virus Isolation and RT-PCR:

Viral mumps specimens should be collected as close to symptom onset as possible, preferably within 1-3 days of onset of parotitis. Particularly among previously immunized suspected cases, mumps virus detection is an important method of confirming the case. The following is the recommended procedure for sample collection.

Oral/buccal swab: Collect fluid by swabbing the buccal cavity (the space between the cheek and teeth). The parotid duct drains in this space near the upper molars.

- a. Massage the parotid gland area just in front of the ear and near the angle of the jaw for 30 seconds prior to collecting secretions on the swab.
- b. Swab the area between the cheek and gum by sweeping the swab near the upper molar to the lower molar area.
- c. Place the swab in viral transport medium and leave the swab in the medium.

A throat swab (oro- or naso-pharyngeal swab) can also be collected and added together with the buccal swab.

Shipping:

Please utilize the MSPHL courier as this provides the fastest means for specimens to arrive at the laboratory. If possible, ship specimens so they will not arrive in Jefferson City on Saturday or a holiday. If the courier cannot be utilized, specimens should be sent by FedEx or UPS via Priority

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Overnight transport.

Ship the kit using a cold pack. If specimens will not be shipped within 24 hours of collection, they should be frozen at -70°C and shipped on dry ice. Serum should be removed from clot before freezing.

Ship To:

Missouri State Public Health Laboratory

Virology Unit

101 North Chestnut Street

Jefferson City, MO 65101

Phone: 573-751-3334

September 16, 2022