



Missouri Department of Health and Senior Services

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RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

**Julia M. Eckstein**  
Director



**Matt Blunt**  
Governor

August 8, 2006

**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 specimen as described below. Serology and isolation kits may be obtained by calling the MSPHL.

**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 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**

Mumps virus may be detected from viral samples from 7 days prior until 5-9 days after parotitis. Particularly among previously immunized suspected cases, mumps virus detection is an important method of confirming the case. The following is recommended for virus isolation/RT-PCR testing:

Oral/buccal swab for virus culture and RT-PCR: 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. Urine may also be submitted for virus isolation (2-5mL of clean-voided midstream urine), but will not be tested by RT-PCR. We ask that you specifically request mumps RT-PCR on the test request form. There is no check box for this test.

**Shipping**

Determine method of shipment (mail or courier) that will get specimens to the Laboratory in the shortest length of time. If possible, select the method of shipment so that the specimens will not arrive in Jefferson City on Saturday, Sunday, or a holiday and so they will arrive prior to 5:00 P.M. on regular working days. **DO NOT SHIP CLINICAL SPECIMENS BY UPS.** Ship the kit using a frozen freeze pillow. If the specimen will not be shipped immediately after collection it should be kept cold (4°C) or frozen at -70°C. Avoid freeze-thaw cycles.

**Ship To:**

Missouri Department of Health and Senior Services  
State Public Health Laboratory  
307 West McCarty Street  
Jefferson City, MO 65102  
Ph: 573-751-0633  
Fax: 573-526-2754

[www.dhss.mo.gov](http://www.dhss.mo.gov)

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