



# MUMPS

1. **Agent:** Mumps virus.
2. **Identification:**
  - a. **Symptoms:** An acute viral disease characterized by fever and by swelling and tenderness of one or more salivary glands (usually the parotid, occasionally the sublingual or submaxillary glands). The most common complication in postpubertal males is orchitis (testicular inflammation). Some degree of testicular atrophy may result; however, sterility is rare. Other complications include meningitis, encephalitis, pancreatitis, and deafness. As many as 30% of cases are subclinical.
  - b. **Differential Diagnosis:** Anterior cervical or preauricular lymphadenitis, suppurative parotitis, parotid duct stone, mixed tumors of the parotid gland, Mikulicz's syndrome and uveoparotid fever. Parotitis is often due to other viruses.
  - c. **Diagnosis:** Clinical syndrome or serological evidence of infection.
3. **Incubation:** Usually 16-18 days, but cases may occur from 12 to 25 days after exposure.
4. **Reservoir:** Human.
5. **Source:** Saliva of infected persons; respiratory tract secretions.
6. **Transmission:** Airborne transmission or through direct contact with infected droplets or saliva.
7. **Communicability:** 6-7 days before symptoms to 9 days after; greatest 48 hours before swelling starts.
8. **Specific Treatment:** None.
9. **Immunity:** Lifelong.

## REPORTING PROCEDURES

1. **Reportable.** *California Code of Regulations*, Section 2500. Individual cases are reportable, but not investigated; submit CMR and any

available laboratory results. Investigate outbreaks. Report case or suspect case within 7 calendar days from the time of identification by mail, telephone, fax, or electronic report.

2. **Report Form: OTHER OUTBREAK / OTHER REPORTABLE DISEASE OR DISEASE OF UNUSUAL OCCURRENCE (DHS 8554, 7/04 fillable).**
3. **Notify Immunization Program immediately of:**
  - a. Outbreaks of 2 or more cases occurring within 4 week period at day-care, school, college, or university; or
  - b. Sustained transmission (2 or more transmission cycles) occurring at a day-care, school, college or university.
4. **Epidemiologic Data:**
  - a. Known exposure to another case within incubation period.
  - b. Immunization history.
  - c. Knowledge of incidence in classroom, school, county, etc.

## CONTROL OF CASE, CONTACTS & CARRIERS

Investigate outbreaks only. Initiate investigation within 4 days of notification.

### CASE:

**Precautions:** Exclude from school and day-care until 9 days after the onset of parotitis.

### CONTACTS:

Immunize all susceptible contacts immediately. Mumps vaccination has not been shown to be effective in preventing mumps in persons already infected; it will prevent infection from subsequent exposure.

In outbreak, children with immunization waivers should be excluded from school for 26 days after the onset of parotitis in the last person in the



school who develops mumps. The child may return to school immediately if they receive immunization.

Conduct surveillance of contacts for 25 days after exposure.

### PREVENTION-EDUCATION

1. Immunize all susceptibles, especially contacts to recent case. Adolescent and adult males are of special concern.
2. Discuss involvement of ovaries and testicles in persons past puberty.
3. Discuss possible CNS, pancreatic, and testicular involvement early or late in the disease.
4. Disinfect utensils and fomites soiled with nose and throat secretions and urine.

### DIAGNOSTIC PROCEDURES

Clinical and epidemiological histories are required to aid the laboratory in test selections.

1. **Serology:** Paired sera (IgG) or one acute sera (IgM).

**Container:** VR SEROLOGY serum separator tube (SST, a red-gray top vacutainer tube).

**Laboratory Form: Test Requisition and Report Form H-3021 or online request if electronically linked to the Public Health Laboratory.**

**Examination Requested:** Mumps Serology.

**Material:** Whole clotted blood.

**Amount:** 8-10 ml.

**Storage:** Refrigerate.

**Remarks:** For paired sera collect first blood specimen as early as possible. Collect the second approximately 2 weeks after the first. Send each specimen as it is collected; do not store. IgM antibodies are best detected 7-10 days after onset.

2. **Culture:** Not routinely done. Consult the PHL Virus Section.