

Mumps Clinical Information

Report suspect mumps cases

If you suspect mumps in a patient:

- Call MDH at 651-201-5414 or toll-free at 1-877-676-5414 to report
- or
- Submit the [mumps reporting form](http://www.health.state.mn.us/divs/idepc/dto pics/reportable/forms/mumpsform.html) (<http://www.health.state.mn.us/divs/idepc/dto pics/reportable/forms/mumpsform.html>) within one working day.

Laboratory testing

Refer to [Lab Testing for Mumps at the MDH Public Health Laboratory](http://www.health.state.mn.us/divs/idepc/disease s/mumps/hcp/labtesting.html) (<http://www.health.state.mn.us/divs/idepc/disease s/mumps/hcp/labtesting.html>) for specimen collection instructions and requirements.

Epidemiology of mumps

Mumps was once common in the United States with an estimated 185,000 cases reported annually. Following vaccine licensure in 1967, reported mumps cases decreased dramatically.

Mumps cases in the U.S. vary widely each year depending on whether or not large outbreaks are occurring. On average, Minnesota reports fewer than 10 cases of mumps each year.

Most individuals in Minnesota are vaccinated for mumps. Two doses of the vaccine are about 88 percent effective at protecting against mumps; one dose is about 78 percent effective. Outbreaks can still occur in highly vaccinated communities, particularly in close-contact settings. However, high vaccination coverage helps limit the size, duration, and spread of mumps outbreaks.

Clinical presentation

Mumps is a viral illness characterized by:

- Acute parotid/other salivary gland swelling and/or
- Orchitis or oophoritis unexplained by a more likely diagnosis.

Mumps is characterized by a non-specific prodrome including myalgia, anorexia, malaise, headache, and low-grade fever with an acute onset of unilateral or bilateral tender swelling of the parotid or salivary gland lasting 2 days without other apparent cause.

Parotitis is the most common symptom. Any combination of single or multiple salivary glands may be affected.

Up to 30 percent of mumps infections are asymptomatic. An additional 40-50 percent may have only nonspecific or primarily respiratory symptoms.

Diagnosing mumps

Laboratory testing must be done to confirm a mumps diagnosis because symptoms are non-specific. RT-PCR testing along with serologic testing should be done. Mumps IgM results may be falsely positive due to cross-reactivity with other viruses.

Differential diagnoses

Mumps should be considered in the differential diagnosis of patients presenting with parotitis or swelling of the salivary glands, regardless of vaccination history. Other etiologies include:

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- Influenza A, Parainfluenza virus types 1 and 3, Coxsackie A virus, Cytomegalovirus, Epstein Barr virus, Lymphocytic choriomeningitis virus, HIV
- Acute bacterial suppurative parotitis (Staphylococcus aureus and Streptococcus spp.)
- Recurrent parotitis
- Drug reactions, allergies, tumors, immunologic diseases

Communicability of mumps

- The incubation period for mumps is usually 16 to 18 days, but can range from 12 to 25 days.
- Persons with mumps are generally infectious from 2 days before onset of swelling (or illness if swelling isn't present) to 5 days after onset of illness.
- The virus is spread by contact with infected respiratory tract secretions.
- Contagiousness is similar to that of influenza and rubella, but is less than that for measles and varicella.

Recommended exclusion

School, child care, and work settings:

- Suspect and confirmed mumps cases should be excluded from school, child care, work, or other public settings through 5 days after onset of swelling.
 - Exclusion for 9 days had previously been recommended based on reports of mumps virus isolation from saliva up to 9 days following onset. Theoretical risk of transmission beyond 5 days is not supported by epidemiologic data.

Health care settings:

- Health care workers who develop mumps should be excluded from work for 5 days following onset of swelling. Upon return to work, facilities may recommend that health care workers wear a mask through day 9. Although this is not stated in standard guidelines, MDH considers this a reasonable approach.

- Droplet precautions in addition to standard precautions should be used when providing direct care to suspected mumps cases.
- Surgical masks are recommended, and face shields may be considered for eye protection.
- Waiting room time should be minimized for patients being evaluated for mumps
- Suspected mumps cases should be masked while in waiting areas.
- For mumps, usual procedures for cleaning, disinfecting, and re-using exam rooms and equipment are sufficient.

Complications of mumps

- Orchitis (inflammation of the testes) occurs in 3-10 percent in post pubertal males.
- Rare complications include oophoritis, meningitis, mastitis, pancreatitis, permanent deafness, sterility, and death.

Like other infections, there is a theoretical risk that mumps during the early months of pregnancy may cause complications; however, current data on mumps during pregnancy are inconclusive.

Treating mumps

- Medical care is supportive to help relieve symptoms and address complications.
- Post-exposure use of vaccine or Immune Globulin (IG) is not effective for mumps.

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To obtain this information in a different format, call: 651-201-5414.