



The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences
305 South Street, Jamaica Plain, MA 02130

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lieutenant Governor

Division of Epidemiology and Immunization

Tel: (617) 983-6800

Fax: (617) 983-6840

www.mass.gov/dph/epi

www.mass.gov/dph/imm

MARYLOU SUDDERS
Secretary

MONICA BHAREL, MD, MPH
Commissioner

Tel: 617-624-6000
www.mass.gov/dph

March 2, 2016

Clinical Advisory: Mumps

1. Consider a diagnosis of mumps in those with mumps symptoms, **regardless of vaccination history**.
2. Use droplet and standard precautions to prevent transmission.
3. Obtain appropriate clinical specimens for testing at the Massachusetts State Public Health Laboratory. **A buccal swab is preferred for patients with recent onsets (within five days of onset of swelling)**.
4. Isolate suspected and confirmed mumps cases for five days after onset of swelling.
5. Report suspected cases to MDPH at 617-983-6800. Cases diagnosed in Boston should be reported to the Boston Public Health Commission at 617-534-5611.
6. Vaccinate those without evidence of immunity to mumps and reach out to those with medical and religious exemptions.

Six confirmed and fourteen suspect cases of mumps in Cambridge residents have been reported to the Massachusetts Department of Public Health (MDPH) since mid-February. All have been students at a large Boston-area university. The six confirmed cases have documentation of two doses of measles-mumps-rubella (MMR) vaccine, and the majority of the suspected cases are believed to have had two doses of MMR. In addition to the cases in Massachusetts, mumps has been confirmed recently in a college in Manchester, New Hampshire. In the midwestern United States (Indiana, Kentucky, Iowa) there have been several mumps outbreaks at colleges and universities over the past few months, including in 2016. The beginning of the Spring Break season may have an impact on further and wider transmission. MDPH urges providers to consider a diagnosis of mumps in anyone presenting with typical symptoms of mumps, regardless of vaccination history.

SYMPTOMS AND DIAGNOSIS

Mumps virus is spread through infected respiratory tract secretions. It can be spread within three to six feet when an infected person coughs or sneezes, or with direct contact with infected secretions (e.g. sharing water bottles). The incubation period can range from 12 to 25 days. Parotitis (swelling of the salivary glands) is the most common symptom (30-65%), but non-specific symptoms such as myalgia, anorexia, malaise, headache, and low-grade fever may precede the parotitis by several days. In the prevaccine era, 15-30% of infections were asymptomatic.

Mumps is usually a mild illness, but there can be complications including meningitis, encephalitis, orchitis, oophoritis, mastitis, glomerulonephritis, myocarditis, arthritis, and hearing loss. People are considered infectious from two days before symptoms begin until five days after the onset of parotid swelling. **Therefore, those suspected of mumps should be isolated and should refrain from public activities for five days after the onset of swelling.**

Diagnostic tests indicating mumps include viral isolation from culture, a positive polymerase chain reaction (PCR), a four-fold or greater increase in anti-mumps IgG titer between acute and convalescent serum specimens, or a single positive serum IgM (a negative IgM in an immunized person does not rule out disease). Specimens can include buccal swab or blood. **The buccal swab is the preferred specimen when patients have recent onset of illness.** Buccal swabs should be obtained within five days of onset of symptoms, and sent in viral transport medium to the MA State Public Health Laboratory in Jamaica Plain for mumps PCR testing. The parotid gland area (the space between the cheek and the teeth just below the ear) should be massaged for about 30 seconds prior to obtaining the specimen. Serum for IgM testing should not be obtained earlier than three days after the onset of parotitis.

Mumps vaccine is highly effective in preventing mumps. One dose is 78% effective, and two doses are 88% effective. Protection appears to be long lasting; however immunity may wane and mumps cases do occur in vaccinated individuals. Healthcare providers in Massachusetts should have presumptive evidence of immunity to mumps (two doses of MMR, or serologic evidence of immunity, or laboratory confirmed past disease). Healthcare providers should consider offering MMR vaccine to patients without evidence of immunity. Evidence of immunity includes documentation of laboratory confirmed mumps, one or more doses of MMR vaccine or birth in the U.S. before 1957 (except for healthcare workers). Patients with one dose of MMR should receive a second dose of MMR during outbreaks. Revisit vaccination with those who have had medical and religious exemptions in the past; vaccination may now be accepted.

RECOMMENDATIONS

1. Consider a diagnosis of mumps in those with mumps symptoms, regardless of vaccination history.
2. Use droplet and standard precautions when caring for suspect or confirmed cases.
3. Obtain appropriate clinical specimens for testing at the MA State Public Health Laboratory.
4. Suspect and confirmed mumps cases should be isolated and not return to school, work, or other public places until five days after the onset of parotitis (date of onset is considered “day zero”). Exposed healthcare providers, without presumptive evidence of immunity, will need to be excluded from work.
5. Report suspected cases to MDPH at 617-983-6800. Cases diagnosed in Boston should be reported to the Boston Public Health Commission at 617-534-5611.
6. Vaccinate those without evidence of immunity to mumps, including students, teachers and staff, and reach out to those with medical and religious exemptions to determine if vaccination is now an option.

For questions about mumps, please call 617-983-6800 and ask to speak with an epidemiologist. A mumps fact sheet is available at <http://www.mass.gov/eohhs/gov/departments/dph/programs/id/epidemiology/factsheets.html> in six languages.

Additional information about mumps is available at the CDC website at <http://www.cdc.gov/mumps/about/index.html>

Report suspected cases to MDPH at 617-983-6800. Cases diagnosed in Boston should be reported to the Boston Public Health Commission at 617-534-5611.