Mumps

What is mumps?

Mumps is a contagious disease caused by a virus. The most common symptom is swelling of the cheeks and jaw due to inflammation of one or both of the saliva glands near the ear and back of the jaw (most commonly the parotid glands). This may be very painful. However, approximately 33% of the people with mumps may be asymptomatic, may not have detectable swelling, or may have respiratory symptoms only. Other symptoms of mumps include fever, headache, stiff neck and loss of appetite.

Is mumps dangerous?

Mumps is usually a mild disease, although facial swelling and related discomfort may be pronounced. And there can be worrisome complications. Three to ten percent of men with mumps develop swollen testicles ("orchitis"). Approximately one percent of women may develop swollen ovaries ("oophoritis"). This swelling in men and women can cause loss of fertility, although this is rare.

Mumps sometimes causes problems in other organs, including the heart, pancreas, and joints, which can lead to permanent damage. The most serious problems caused by mumps are inflammation of the thin membrane that covers the brain and spinal cord (meningitis) and inflammation of the brain itself (encephalitis). Before mumps vaccine became available, mumps accounted for approximately ten percent of cases of symptomatic aseptic meningitis. In the post-vaccine era, among all persons infected with mumps, reported rates of meningitis, encephalitis, pancreatitis, and deafness have all been less than one percent. Mumps infection during the first trimester of pregnancy may increase the risk of miscarriage.

How is mumps spread?

The virus that causes mumps is spread through saliva or mucus from the mouth, nose, or throat by coughing, sneezing, or talking. Touching a tissue or sharing a cup used by someone with mumps can also spread the virus. People with mumps are usually contagious from 2 days before until 5 days after their glands start swelling. Symptoms most often appear 2 - 3 weeks after a person is exposed.

In recent years, mumps outbreaks have occurred in settings where close contact is repeated and prolonged, such as colleges and universities, dormitories, and other such crowded settings. Many cases have occurred among students who have received two doses of mumps vaccine.

Who gets mumps?

- Anyone who never had mumps and has never been vaccinated.
- Infants younger than 12 months old, because they are too young to be vaccinated.
- A small percentage of vaccinated children and adults who may not have responded well to the vaccine. It is estimated that two doses of mumps-containing vaccine protect approximately 88% of those who receive it. This suggests that 12% of those with two doses of MMR vaccine may be susceptible to mumps infection. Protection from the vaccine also appears to decrease over time.

How is mumps diagnosed?

Mumps is often diagnosed by its symptoms, but this is not always reliable because there are many causes of salivary gland swelling. A blood test can be used to diagnose mumps, but this test is not always definitive. Sometimes multiple blood tests taken over time are needed to diagnose mumps. A swab taken from the inside of the cheek may also help diagnose the disease, and is the preferred diagnostic test (called a "PCR"). The swab should be collected as soon after onset of swelling as possible.

How can you prevent mumps?

- Mumps vaccine is usually given in a shot called MMR, which protects against measles, mumps and rubella. There are now many fewer cases of these three diseases because children get the MMR vaccine. Protect your children by having them vaccinated when they are 12 - 15 months old, and again when they are about to enter kindergarten.
- State regulations require certain groups to be vaccinated against mumps. Children in child care and preschool need to have one dose of mumps vaccine, and staff should have two doses of MMR. Students in grades K – 12 and in college need two doses of MMR vaccine for school entry. A blood test that provides presumptive evidence of immunity can also be used to fulfill this requirement for all groups.
- Adults born in or after 1957 should have at least 1 dose of MMR. Those born in the US prior to 1957 are assumed to be immune to mumps.
- People in high risk groups such as health care workers (paid, unpaid and volunteer), health science students and international travelers should have 2 doses of MMR, regardless of year of birth.
- People with mumps should be kept away from other people until they are well again. State regulations require anyone who develops mumps to be isolated for 5 days after the onset of gland swelling. That means they must be kept away from public places like day care centers, grocery stores, school and work.

Is MMR vaccine safe?

Yes. It is safe for most people. However, a vaccine, like other medicines, can cause side effects in some people. The MMR vaccine can cause fever, mild rash, temporary pain or stiffness of the joints. More severe problems, such as seizures, bleeding problems or allergic reactions are very rare. Getting MMR vaccine is much safer than getting mumps, and most people do not have any problems with the vaccine.

Who should not get MMR vaccine?

- People who have had a life-threatening allergic reaction to gelatin, the drug neomycin, or a previous dose of the vaccine.
- Pregnant women should not get MMR vaccine. Pregnant women who need the vaccine should wait until after giving birth. Women should avoid getting pregnant for 4 weeks after vaccination with MMR vaccine.

- People with cancer, HIV, or other problems or treatments that weaken the immune system should check with their doctor or nurse before getting vaccinated.
- People who have recently had a transfusion or were given other blood products should check with their doctor or nurse before getting vaccinated.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

Should healthcare workers be extra careful about mumps?

Yes. Healthcare workers who are not immune to mumps can become infected and spread the virus to their coworkers and patients. That is why it is required that all health care workers who are exposed to mumps and have no record of mumps vaccination or whose blood tests show that they are not immune stay out of work from the 12th day through the 25th day after being exposed to the disease. Healthcare workers should have presumptive evidence of immunity to mumps, either through vaccination or blood test.

Even healthcare workers with presumptive evidence of immunity to mumps who are exposed to confirmed cases of mumps should watch for symptoms for 25 days after the exposure. Some vaccinated healthcare workers have developed mumps after exposure to patients with mumps.

Where can I get more information?

- Your doctor, nurse or clinic, or your local board of health (listed in the phone book under local government).
- The Massachusetts Department of Public Health, Immunization Program (617) 983-6800 or on the MDPH Website at www.mass.gov/dph/imm/.
- Boston providers and residents may also call the Boston Public Health Commission at (617) 534-5611.
- CDC's National Call Center, CDC-INFO (www.cdc.gov/cdc-info/):
    - English or Spanish: 1-800-CDC-INFO (1-800-232-4636) (Mon – Fri, 8am – 8pm EST)
    - TTY: 1-888-232-6348