

## CDC issues guidance on use of 3rd dose of mumps vaccine during outbreaks

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Dawn Nolt, M.D., M.P.H., FAAP

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In response to an increasing number of mumps outbreaks, the Centers for Disease Control and Prevention (CDC) has released guidance for public health authorities on the use of a third dose of mumps vaccine, <https://www.cdc.gov/mumps/health-departments/MMR3.html>.

The number of mumps outbreaks in the U.S. has risen sharply in recent years. From 2012-'15, a total of 47 outbreaks were reported. In contrast, there were 50 outbreaks in 2016 and 88 in 2017.

Outbreaks have occurred in closely congregated settings, such as college campuses and close-knit communities based on shared religious or cultural interests. These outbreaks are occurring despite a large number of infected individuals having received the recommended two-dose series of mumps-containing vaccinations. The reason for this increase among fully vaccinated individuals is unclear.

In response to these mumps outbreaks, the CDC convened a panel of experts from nine national organizations and specialties, including the AAP. The group met for 15 months and reviewed data on mumps epidemiology, duration of immunity after the recommended two-dose series and the impact of a third dose of vaccine on outbreak control and public health resources.

The CDC working group found that data are insufficient to recommend routine use of a third dose of mumps-containing vaccine to shorten the duration of an ongoing mumps outbreak. However, the group stated that public health officials can recommend a third dose of mumps-containing vaccine to provide protection against mumps infection and complications.

When administered during an outbreak, a third dose of mumps vaccine is safe and appears to reduce the risk of infection and the severity of disease in people at high risk of infection. To determine whether to recommend a third dose of vaccine, public health officials will use a risk-based matrix to identify at-risk communities and individuals.

The working group did not recommend a third dose of mumps-containing vaccine outside a mumps outbreak.

Pediatric health care professionals should be aware that children and young adults involved in mumps outbreaks may come to them after being notified by public health officials that they should receive a third dose of mumps-containing vaccine. Providers also may want to communicate with local public health officials if they become aware of mumps cases in their practice.

Mumps virus is spread from person to person through respiratory secretions and is characterized by swelling of salivary, or parotid, glands. Accompanying symptoms include fever, headache, fatigue and myalgias. The most well-known complication of mumps infection is swelling of the testicles (orchitis), which may occur in up to one-third of post-pubertal males and rarely can lead to long-term fertility problems.

The incidence of mumps disease has been reduced markedly since the implementation of childhood mumps vaccination. In addition, vaccination has been shown to reduce the severity of mumps infection.

*Dr. Nolt is a member of the AAP Committee on Infectious Diseases.*

### **Resources**

- [“Recommendation of the Advisory Committee on Immunization Practices for Use of a Third Dose of Mumps Virus-Containing Vaccine in Persons at Increased Risk for Mumps During an Outbreak”](#)
- [CDC guidance for health departments](#)
- [Mumps chapter in the AAP Red Book](#)

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