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## Enterovirus D68 (EV-D68)

Prepared by Division of Epidemiology & Public Health Preparedness  
Washoe County Health District  
September 10, 2014

Enterovirus D68 (EV-D68) is one of many non-polio enteroviruses. Enterovirus D68 (EV-D68) infections are thought to occur less commonly than infections with other enteroviruses. EV-D68 was first identified in California in 1962. Compared with other enteroviruses, EV-D68 has been rarely reported in the United States for the last 40 years.

In mid-August, 2014, the Centers for Diseases Control and Prevention (CDC) received reports of an increased number of cases of severe respiratory illness in children in Missouri and Illinois. Hospitals in these two states are seeing more children than usual with severe respiratory illness caused by EV-D68. As of September 8<sup>th</sup>, several other states were investigating clusters of children with severe respiratory illness, possibly due to EV-D68<sup>1</sup>. Names of affected states are not provided by CDC.

Enteroviruses are associated with various clinical symptoms, including mild respiratory illness, febrile rash illness, and neurologic illness. EV-D68, however, primarily causes mild to severe respiratory illness, although the full spectrum of disease remains unclear. According to the a recently published article<sup>2</sup>, some children have required admission to pediatric intensive care units (ICU). The majority of hospitalized patients are <5 years of age, although some have been adolescents, and most have a history of asthma. Patients have presented with wheezing or difficulty breathing. Several patients have required mechanical ventilation. Of note, only ~20% of patients had fever. EV-D68 is not frequently identified, so it is less studied and the ways it spreads are not as well-understood as other enteroviruses. EV-D68 causes respiratory illness, and the virus can be found in respiratory secretions such as saliva, nasal mucus, or sputum. The virus likely spreads from person to person when an infected person coughs, sneezes, or touches contaminated surfaces. There are no available vaccines or specific treatments for EV-D68, and clinical care is supportive.

The Washoe County Health District's (WCHD)'s influenza-like illness (ILI) activity, monitored through the Outpatient Influenza-like Illness Surveillance Network (ILINet), has remained low. Likewise, WCHD has not received reports of clusters of severe respiratory illness in young children as of September 10, 2014.

To protect yourself and others from getting this disease, individuals are encouraged to follow these steps:

- Wash your hands often with soap and water for 20 seconds, especially after changing diapers, and using the restroom.
- Avoid touching your eyes, nose and mouth with unwashed hands
- Avoid kissing, hugging, and sharing cups or eating utensils with people who are sick
- Disinfect surfaces that are frequently touched, such as toys and doorknobs, especially if someone is sick

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<sup>1</sup> <http://www.cdc.gov/non-polio-enterovirus/about/EV-D68.html>

<sup>2</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e0908a1.htm>

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**Interim information for parents of students about Enterovirus D68:**

1. **What is EV-D68?** Enterovirus D68 (EV-D68) is not a new virus, but over the past few years it has caused outbreaks of respiratory illness in the fall. These outbreaks are similar to what we see later in the year with influenza and RSV. What's different is that these outbreaks happen earlier in the fall and with a different virus.
2. **Who does this virus infect?** In the current outbreak, most patients are children under 16 with a prior history of asthma or wheezing. Symptoms include rapid onset of cough, wheezing and difficulty breathing. EV-D68 rarely causes fever. Most children with suspected EV-D68 infection respond quickly to supportive care that includes breathing treatments, such as inhalers prescribed by a health care provider.
3. **What should I look out for?** If your child or family member develops rapid onset of cough, wheezing or difficulty breathing, please contact their healthcare provider. While most patients do not require hospitalization, children can develop symptoms rapidly, so a quick call or visit to a health care clinic might be necessary.
4. **Is there an antibiotic I can take or a vaccine?** No, EV-D68 is a virus so antibiotics do not treat it and there are no currently available antiviral medications that treat EV-D68. There is also no vaccine. However, that does not mean that your child can't be treated. Children with severe respiratory distress can receive several forms of breathing treatments that reduce their symptoms and get them on the road to recovery.
5. **Are pregnant women at risk?** Pregnant women have a greater chance of being infected if they do not have immunity (protection) from a previous infection with EV-D68. However, most pregnant women who become infected will not get sick, or they will only have mild illness. Right now, there is no clear evidence that pregnant women with enterovirus infection will have severe complications, like miscarriage, stillbirth, or congenital defects. But, if a pregnant woman is infected shortly before delivery, she can pass the virus to her baby. These babies usually have only mild illness. In rare cases, they may have severe infection.
6. **How can I prevent my children from getting this illness?** Please educate your children and follow these steps:
  - Wash hands often with soap and water for 20 seconds, especially after changing diapers, and using the restroom.
  - Avoid touching your eyes, nose and mouth with unwashed hands
  - Avoid kissing, hugging, and sharing cups or eating utensils with people who are sick
  - Disinfect surfaces that are frequently touched, such as toys and doorknobs, especially if someone is sick