

Enterovirus D68 (EV-68)

What is enterovirus D68 (EV-D68)?

Enteroviruses are very common viruses; there are more than 100 types. Enterovirus infections are typically seasonal occurring in the summer and fall. People infected with enterovirus can have respiratory, rash, neurologic, gastrointestinal and cardiac illness. Most infected people have no symptoms or only mild symptoms, but some infections can be serious.

Enterovirus D68 (EV-D68) is one subtype of enterovirus that is thought to occur less commonly than infections with other enteroviruses. EV-D68 was first identified in California in 1962, and since then has been reported rarely in the United States. Small clusters of EV-D68 associated with respiratory illness were reported in the United States during 2009-2010.

In August 2014, several states began reporting an increase in severe respiratory illness among children testing positive for EV-D68 in emergency department visits and hospitalizations. EV-D68 has been reported to cause mild to severe respiratory illness. EV-D68 is not frequently identified, so it is less studied and the ways it spreads are not as well-understood as other enteroviruses. The virus likely spreads from person to person when an infected person coughs, sneezes, or touches surfaces.

Who is at risk?

Infants, children and teenagers have become ill in recent outbreaks. Children with compromised immune systems including asthma are at risk for severe respiratory illness.

What are the symptoms?

People who are infected with EV-D68 can have a range of symptoms, from mild to severe illness requiring hospitalization. Symptoms may include:

- Difficulty breathing
- Cough
- New onset of wheezing
- Fever
- Rapid heart rate

How is it transmitted?

Enteroviruses including EV-D68 cause respiratory illness, and can be found in respiratory secretions such as saliva, nasal mucus, or sputum. Enteroviruses spread from person to person when an infected person coughs, sneezes, or touches surfaces.

How do you prevent EV-D68?

There is no vaccine to protect from EV-D68 infection. Since many infected people do not have symptoms, it is very important to remember to protect yourself and others by following these tips:

- Wash hands often with soap and water for 20 seconds, especially after changing diapers
- Avoid touching eyes, nose and mouth with unwashed hands

- Avoid kissing, hugging, and sharing cups or eating utensils with people who are sick
- Disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick
- Stay home from work or school when you feel sick or have a fever, and obtain consultation from your healthcare provider

What are the treatments?

There is no specific treatment for people with EV-D68. For mild illness, you can help relieve symptoms by taking over-the-counter medications for pain and fever. Aspirin should not be given to children. Some people with severe respiratory illness may need to be hospitalized. There are no antiviral medications currently available for people who become infected.

What should healthcare professionals know?

Consider EV-D68 as a potential cause of clusters of unexplained severe respiratory illness, particularly in young children. Contact and droplet precautions are recommended for patients in whom infection with EV-D68 or another respiratory virus is suspected. The use of antimicrobial soap and water is preferred for hand hygiene, as alcohol-based hand rubs have limited activity against EV-D68 and other enteroviruses.

Consider laboratory testing of respiratory specimens for enteroviruses when the cause of the infection in severely ill patients is unclear. Some hospitals can test for enteroviruses, but they do not have the ability to perform enterovirus typing.

Testing for EV-D68 can be arranged through your local health department. Healthcare professionals who identify clusters of severe or unusual respiratory illness are should contact their local health department for further guidance.

What should schools know?

Exclusion from school is not recommended unless the child is febrile or generally does not feel well. School should notify their local health department immediately if they identify clusters of children with respiratory illness. Steps that schools can take to protect children include:

- Increase education to students and staff on hand-hygiene and cough etiquette
- Continue routine cleaning and disinfection of schools especially high touched surfaces
- Encourage staff and students to stay home when they are sick
- Employees should wash hands with soap and water for 20 seconds before and after changing diapers.

For more information please contact the Division of Infectious Disease Epidemiology at (304)558-5358.