



Respiratory Illness Due to Enterovirus D68 (EV-D68)

What is the current situation?

This year, an uncommon form of enterovirus called EV-D68 has been found circulating in Missouri and Illinois. This is a rapidly evolving situation and additional states also may report circulation of this virus. Testing of specimens from individuals diagnosed with enterovirus infection were sent to a specialized laboratory at the U.S. Centers for Disease Control and Prevention (CDC) and 11 specimens from a Chicago hospital were positive for Enterovirus D68 (EV-D68). To date, there have been no reported deaths due to EV-68 in Illinois.

Other locations within Illinois have reported increased cases of respiratory illness in children and have diagnosed enterovirus infections, but specific testing for EV-68 has not been performed. Testing for the EV-68 strain is not readily available from hospital and clinical laboratories.

The Illinois Department of Public Health sent a health alert message September 5 to medical providers and public health officials throughout the state, alerting them to the occurrence of these illnesses. Health updates will be sent as more information and guidance become available.

What are enteroviruses?

Enteroviruses are very common viruses. There are more than 100 types of enteroviruses. It is estimated that 10 to 15 million enterovirus infections occur in the U.S. each year. Most people infected with enteroviruses have no symptoms or only mild symptoms, but some infections can be serious. Most enterovirus infections in the U.S. occur seasonally during the summer and fall, and outbreaks tend to occur in several-year cycles.

What is Enterovirus-D68 (EV-D68)?

Enterovirus-D68 (EV-D68) is a type of enterovirus first detected in 1962 in California from four children with respiratory illness and it has been reported rarely since that time. EV-D68 infections appear to occur less commonly than those with certain other types of enteroviruses.

Unlike the majority of enteroviruses that cause disease in the form of a mild upper respiratory illness, rash illness with fever, or neurologic illness (such as aseptic meningitis and encephalitis), EV-D68 has been associated almost exclusively with respiratory disease, which can range from mild to severe. However, other manifestations of illness might also occur.

No data is currently available regarding the numbers of illness, and possibly deaths, from EV-D68 in the U.S. Outbreaks of respiratory illness associated with EV-D68 have been investigated in Asia, Europe and the U.S. during the past few years.

What are the symptoms of Enterovirus-D68 infection?

EV-D68 appears to primarily cause respiratory illness, which as ranged from relatively mild illness to severe illness requiring hospitalization in an intensive care unit. Specific symptoms have included fever, difficulty breathing, and wheezing or asthma exacerbation.

How is Enterovirus-D68 infection diagnosed?

An initial test using polymerase chain reaction (PCR) can be used to detect enterovirus/rhinovirus. A health care provider may decide to do this testing or may determine a respiratory virus is responsible and not test any further. To determine specifically whether EV-D68 is responsible for the illnesses, specialized testing is needed at CDC.

How is Enterovirus-D68 infection treated?

There are no anti-viral medications currently available to treat EV-D68 infections. Many infections will be mild and self-limited, requiring only symptomatic treatment. Some people with severe respiratory illness caused by EV-D68 may need to be hospitalized and receive intensive supportive therapy.

How is EV-D68 transmitted?

EV-D68, like other enteroviruses, appears to spread through close contact with infected people. (See the next question for ways to reduce transmission.)

What precautions can people take to reduce the risk of acquiring, or transmitting, EV-D68 and other enterovirus infections?

- 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 when feeling sick and consult your health care provider.

Is there a vaccine for EV-D68?

There is no vaccine available.

Why can't we get the number of cases or the number of locations where this virus is present in Illinois?

There are many viruses that can cause respiratory illness in people. To identify this particular type of enterovirus requires specialized testing locally and at CDC. Therefore, the specific type of virus causing a respiratory infection in the state will most likely NOT be identified. In addition, this particular virus is not reportable in the state. Therefore, it is important to follow the

general precautions to reduce the risk of getting any respiratory infection no matter where you live in the state.

Is EV-D68 a reportable disease in Illinois?

Medical providers are not required to report known or suspected cases of EV-D68 to public health authorities. However, medical providers should report clusters or outbreaks of unexplained respiratory illnesses to the local public health agency.

Last updated September 8, 2014