



October 2014

## Contagious Diseases - Enterovirus, EBOLA, & Influenza

From mid-August to October 16, 2014, the Centers for Disease Control and Prevention (CDC) or state public health laboratories have confirmed a total of 796 people in 46 states and the District of Columbia with respiratory illness caused by enterovirus EV-D68 (EV-D68). Fortunately, the CDC has received informal reports from some hospitals and states that are seeing signs of decreasing EV-D68 infections. While there are more than 100 different enteroviruses, EV-D68 is one of the less common types, however, EV-D68 can cause severe respiratory problems. It can be found in an infected person's respiratory secretions, such as saliva, nasal mucus, or sputum. EV-D68 likely spreads from person to person when an infected person coughs, sneezes, or touches a surface that is then touched by others. This transmission is similar to other viruses, including influenza. As of October 16, 2014, the CDC reports that EV-D68 has been detected in specimens from seven patients who died and had samples submitted for testing.

The number of reported cases of Ebola in the United States is a fraction of the 796 cases of EV-D68. Although the fatality rate for Ebola is high, it is harder to transmit from person-to-person. The World Health Organization reports that Ebola has a 90-percent fatality rate, although the rate may prove to be lower in industrial countries. Ebola spreads through direct contact with an infected person's bodily fluids - such as saliva, blood and vomit which then comes in contact with another's nose, mouth, eyes or an open cut or sore. As stated above, EV-D68 is spread much more easily, mainly through coughing and sneezing and appears to be the larger threat to schools and colleges.

### Enterovirus in Schools

While anyone can get ill from enterovirus, infants, children, and teenagers are more likely to get infected and become sick. This group does not yet have immunity (protection) from previous exposures to the viruses. Children with asthma are at a higher risk for severe symptoms from EV-D68 and other respiratory illnesses. The CDC recommends children with asthma and their parents/guardians should:

- Discuss and update the asthma action plan with their primary care provider.
- Be particularly diligent about taking asthma medications, especially long term control medication.
- Be sure to keep reliever medication on hand.
- Although there are no vaccines for preventing EV-D68 infections, encourage staff and students to get a flu vaccine as indicated.
- Contact a doctor if new or worsening asthma symptoms develop.
- Make sure the child's teacher and nurse are aware of his/her condition, and that they know how to help if the child experiences any symptoms related to asthma.

State health departments along with other governmental agencies are providing information about preventing the spread of enterovirus in educational settings. These include:

- Frequent hand washing with soap and water for 20 seconds after sneezing.
- Avoiding close contact, such as touching and shaking hands and sharing cups or utensils with people who are sick.
- Cleaning and disinfecting frequently touched surfaces, using a hospital grade disinfectant that is EPL-approved for this purpose. A 1:10 bleach solution is appropriate for surfaces. Follow your school policies for ill students and staff as they pertain to cleaning and disinfecting.
- Covering coughs and sneezes with a tissue or shirtsleeve and not with hands. Instruct children to cover their coughs and sneezes with the inside of their elbow.
- If someone presents to your campus health clinic with a fever, in an effort to identify people who may need further screening, ask if they have traveled to or come into contact with someone who has traveled to an Ebola affected region.
- Health departments strongly encourage each school to review its infection control policies and procedures with faculty and staff.

Spread  
Sneezing Immunity Cough Rapid Fever  
Outbreak Wheezing Cough Infections Sick  
**ENTEROVIRUS** Sick  
Cold No Vaccine Diagnose Respiratory  
Chest Pain Bacterial Infection Nationwide Strain  
Children Close Contact Flu  
Virus Infected Immune System  
Illness Medical Care Protection  
Blue Lips  
Mutating strain  
Shortness of Breath  
Infants

## Influenza in Schools



Influenza (flu) is much more common than the enterovirus and Ebola. The CDC reports that over a period of 30 years, between 1976 and 2006, estimates of flu-associated deaths in the United States range from a low of about 3,000 to a high of about 49,000 people. Young children and people with asthma, diabetes and certain blood disorders (such as sickle cell) are more likely to develop complications. Prevention measures are similar to those for the enterovirus, but with a stronger recommendation to get a flu shot.

Outbreaks, whether in K-12 schools, college (including dormitories and other housing units), should be discussed with local health officials. Depending on the nature of the outbreak, a comprehensive cleaning of the school or building may be in order.

## Ebola in Schools

Schools and other educational institutions are not necessarily places that are at high risk for the human transmission of Ebola. People infected with Ebola in the United States have traveled from one of the countries in Western Africa that are experiencing the outbreak, or had close contact with infected persons. However, students in living environments that may put them in direct contact with infected family members or neighbors may present risk to themselves and others. Be attentive to students and their families, faculty and staff members or visitors who have traveled to Ebola-affected West African countries, including Liberia, Sierra Leone, and Guinea within the previous 21 days. Seek the advice of school or college physicians, local and national health experts if needed.



## Business Continuity

Business continuity plans are usually part of emergency management plans. Therefore, strategies for continuing operations during and immediately after an epidemic or required shutdown can be drawn from plans for other hazards that require a closing of the institution.

Administrators should prepare for several different scenarios, such as government-ordered closings, internal (board) decisions to close schools, high student absenteeism, insufficient staff and presence of a large number of sick students in school or on the campus.

The extent of disruption will be affected by different factors, many of which are not under the control of the school including:

- The overall community preparedness level to manage an outbreak.
- Parent - student - community expectations.
- Availability of vaccinations and medical care.
- Conflict with scheduled examinations, state tests, athletics and other events.
- General health level of staff and students.
- Assistance from surrounding schools, colleges, private businesses and municipalities.

Local, state and federal health agencies are distributing information about the use of masks, cleaning procedures, hygiene, immunizations, use of hand sanitizers, etc., and we defer to these agencies in this matter.

## References and Resources

American Red Cross - Flu Checklist  
[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m4340140\\_SeasonalFluChecklist.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4340140_SeasonalFluChecklist.pdf)

Centers for Disease Control and Prevention (CDC)

CDC - Advice for Colleges, Universities, and Students about Ebola in West Africa  
<http://wwwnc.cdc.gov/travel/page/advice-for-colleges-universities-and-students-about-ebola-in-west-africa>

CDC - Non-Polio Enterovirus  
<http://www.cdc.gov/non-polio-enterovirus/outbreaks/EV-D68-outbreaks.html#foot1>

CDC Poster - protecting children from Enterovirus D68  
<http://www.cdc.gov/non-polio-enterovirus/about/EV68-infographic.html>

CDC - What Parents Need to Know About Enterovirus D68  
<http://www.cdc.gov/features/evd68/>

CDC - 2014 Ebola Outbreak in West Africa - Outbreak Distribution Map  
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html#areas>

Georgia Department of Public Health - Guidance for Colleges and Universities  
<http://dph.georgia.gov/guidance-colleges-and-universities>

Illinois Department of Health Ebola Virus Disease (including Infographics)  
<http://www.idph.state.il.us/ebola/index.htm>

Indiana Department of Health - Information for Managing Enterovirus D68 in the School Setting.  
[https://secure.in.gov/isdh/files/Information\\_for\\_Managing\\_EV\\_D68\\_in\\_the\\_School\\_Setting\\_final.pdf](https://secure.in.gov/isdh/files/Information_for_Managing_EV_D68_in_the_School_Setting_final.pdf)

New York State Department of Health - List of County Health Department  
[http://www.health.ny.gov/contact/contact\\_information/](http://www.health.ny.gov/contact/contact_information/)

South Dakota Department of Public Health - Enterovirus D68: FAQ for Schools  
<https://doh.sd.gov/documents/SchoolHealth/Enterovirus-D68.pdf>

World Health Organization - Frequently asked questions on Ebola virus disease  
<http://www.who.int/csr/disease/ebola/faq-ebola/en/>

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<http://www.wrightspecialty.com>