Technical News Release Enterovirus D68

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Technical News Release

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Non-Polio Enterovirus EV-D68

First case of Enterovirus D68 hits Arkansas

LITTLE ROCK, Ark. (KTHV) – The Arkansas Department of Health reported its first case of Enterovirus D68 on Monday. The Center for Disease Control (CDC) has reported 160 cases in 22 states since mid-August.

"We have a number of suspected cases actually through the northern part of Arkansas and this is the first case that we've gotten the sample results back on that this virus is also in Arkansas, as we suspected," said Dr. Gary Wheeler, Medical Director for Infectious Disease Branch, Arkansas Department of Health. The virus mimics the common cold with symptoms like sniffling, congestion, and fever. Enterovirus D68 also comes with shortness of breath, fast breathing, and severe coughing. "Most of the cases we have identified are in young children," Wheeler said. "Typically under the age of five, children who have asthma or other chronic lung conditions."

Centers for Disease Control and Prevention

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

What is enterovirus D68?

Enterovirus D68 (EV-D68) is one of many non-polio enteroviruses. This virus was first identified in California in 1962, but it has not been commonly reported in the United States.

What are the symptoms of EV-D68 infection?

EV-D68 can cause mild to severe respiratory illness. Mild symptoms may include fever, runny nose, sneezing, cough, and body and muscle aches. Most of the children who got very ill with EV-D68 infection in Missouri and Illinois had difficulty breathing, and some had wheezing. Many of these children had asthma or a history of wheezing.

How does the virus spread?

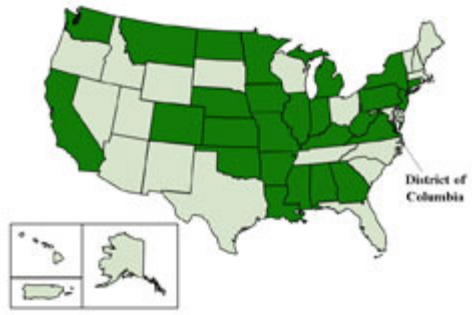
Since EV-D68 causes respiratory illness, the virus can be found in an infected person's respiratory secretions, such as saliva, nasal mucus, or sputum. EV-D68 likely spreads from person to person when an infected person coughs, sneezes, or touches contaminated surfaces.

How many people have been confirmed to have EV-68 infection?

From mid-August to September 19, 2014, a total of 160 people in 22 states were confirmed to have respiratory illness caused by EV-D68. (See States with Lab-confirmed Enterovirus D68.) The cases of EV-D68 infection were confirmed by the CDC or state public health laboratories that notified CDC.

How common are EV-D68 infections in the United States?

States with Lab-confirmed EV-D68 Infections



EV-D68 infections are thought to occur less commonly than infections with other enteroviruses. However, CDC does not know how many infections and deaths from EV-D68 occur each year in the United States. Healthcare professionals are not required to report this information to health departments. Also, CDC does not have a surveillance system that specifically collects information on EV-D68 infections. Any data that CDC receives about EV-D68 infections or outbreaks are voluntarily provided by labs to CDC's National Enterovirus Surveillance System (NESS). This system collects limited data, focusing on circulating types of enteroviruses and parechoviruses.

What time of the year are people most likely to get infected?

In general, the spread of enteroviruses is often quite unpredictable, and different types of enteroviruses can be common in different years with no particular pattern. In the United States, people are more likely to get infected with enteroviruses in the summer and fall. We're currently in middle of the enterovirus season, and EV-D68 infections are likely to decline later in the fall.

Who is at risk?

In general, infants, children, and teenagers are most likely to get infected with enteroviruses and become ill. That's because they do not yet have immunity (protection) from previous exposures to these viruses. We believe this is also true for EV-D68. Among the EV-D68 cases in Missouri and Illinois, children with asthma seemed to have a higher risk for severe respiratory illness.

How is it diagnosed?

EV-D68 can only be diagnosed by doing specific lab tests on specimens from a person's nose and throat. Many hospitals and some doctor's offices can test ill patients to see if they have enterovirus infection. However, most cannot do specific testing to determine the type of enterovirus, like EV-D68. Some state health departments and CDC can do this sort of testing. CDC recommends that clinicians only consider EV-D68 testing for patients with severe respiratory illness and when the cause is unclear. Respiratory illnesses can be caused by many different viruses and have similar symptoms. Not all respiratory illnesses occurring now are due to EV-D68. Anyone with respiratory illness should contact their doctor if they are having difficulty breathing, or if their symptoms are getting worse.

What are the treatments?

There is no specific treatment for people with respiratory illness caused by EV-D68. For mild respiratory 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 with EV-D68.

How can I protect myself?

You can help protect yourself from respiratory illnesses by following these steps:

- 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.

Since people with asthma are higher risk for respiratory illnesses, they should regularly take medicines and maintain control of their illness during this time. They should also take advantage of influenza vaccine since people with asthma have a difficult time with respiratory illnesses.

What should people with asthma and children suffering from reactive airway disease do?

CDC recommends:

- Discuss and update your asthma action plan with your primary care provider.
- Take your prescribed asthma medications as directed, especially long term control medication(s).
- Be sure to keep your reliever medication with you.
- If you develop new or worsening asthma symptoms, follow the steps of your asthma action plan. If your symptoms do not go away, call your doctor right away.
- Parents should make sure the child's caregiver and/or teacher is aware of his/her condition, and that they know how to help if the child experiences any symptoms related to asthma.

Is there a vaccine?

No. There are no vaccines for preventing EV-D68 infections.

EV-D68 Transmission

Non-polio enteroviruses can be found in an infected person's feces (stool), eyes, nose, and mouth secretions (such as saliva, nasal mucus, or sputum), or blister fluid.

You can get exposed to the virus by having close contact, such as touching or shaking hands, with an infected person, touching objects or surfaces that have the virus on them, changing diapers of an infected person, or drinking water that has the virus in it. If you then touch your eyes, nose, or mouth before washing your hands, you can get infected with the virus and become sick.

Pregnant women who are infected with non-polio enterovirus shortly before delivery can pass the virus to their babies. For more information, see Pregnancy & Non-Polio Enterovirus Infection. Mothers who are breastfeeding should talk with their doctor if they are sick or think they may have an infection.

Non-polio enterovirus can be shed (passed from a person's body into the environment) in your stool for several weeks or longer after you have been infected. The virus can be shed from your respiratory tract for 1 to 3 weeks or less. Infected people can shed the virus even if they don't have symptoms.

Good Health Habits for Preventing EV-D68

1. Avoid close contact.
Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.

2. Stay home when you are sick.
If possible, stay home from work, school, and errands when you are sick. You will help prevent others from catching your illness.

3. Cover your mouth and nose.
Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.

4. Clean your hands.
Washing your hands often will help protect you from germs.

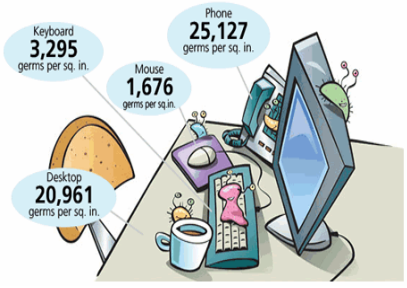
5. Avoid touching your eyes, nose or mouth.
Germs are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.

6. Practice other good health habits.
Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food.

Take "germ-control" into your own hands.

The U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Department of Health and Human Services advise employers to promote hand hygiene to help stop the spread of germs and illness in the workplace. When you can't get to soap and water use alcohol-based hand sanitizers. Take "germ-control" into your own hands. Fight the spread of germs in your workplace with Instant Hand Sanitizer.

How clean is your desk?



There are over 10 million germs on the average desktop. Germs that may make you sick can remain active on hard surfaces for hours or even days. Everything you touch connects you to lots of other people and their germs. Which germs will accompany you throughout your day?

Plain, old-fashioned hand washing is effective at removing these nasty germs that you encounter everyday at work. But, realistically, soap and water are not available at your desk – they're typically much farther away, down the hall and in the restroom. Instant Hand Sanitizer kills germs whenever and wherever you need to.

ATP Hygiene Monitoring System

Now, Myers Supply delivers the industry's first turnkey cleaning measurement program with the rapid detection capabilities of the System SURE PLUS ATP measurement system.

Whether in a restaurant, school, office building, food processing facility or hospital, ATP testing makes it possible to show just how clean surfaces are by detecting the level of microbial contamination on surfaces in just seconds.

Designed with state of the art electronics the System SURE PLUS palm sized system is easy to use, extremely sensitive and very affordable.

SurfaceAide XL 90 Day Antimicrobial Barrier

SurfaceAide XL is a revolutionary new technology for protecting virtually any solid surface from a amazingly broad array of disease and odor-causing microorganisms, including bacteria, mold, and fungi. On application, SurfaceAide XL reduces existing microbe populations by up to 99.99% on contact, and continues to inhibit their return for from 90 days to more than one year!

SurfaceAide XL is totally water based. Once applied to a surface (porous or non-porous) the SurfaceAide XL molecule bonds strongly with the surface. The SurfaceAide XL molecule sets up molecular spikes similar to a "bed of nails". Microbes that land on this "bed of nails" are impaled, rupturing the cell wall and causing the demise of the microbe. These microbialswords are about one thousandth the width of a human hair. No poisons or toxic chemicals are utilized that can cause mutation or adaptive changes in the microbes. The result is a reduced risk of cross contamination and microbial growth. The cleaning Process is improved and enhanced over an extended period of time.

SaniGuard® Dry-on-Contact Sanitizing Surface Spray

SaniGuard® Surface Spray is the world's first and only DRY-ON-CONTACT Spray Sanitizer & Deodorizer. SaniGuard sanitizing products are EPA registered, patented, and have been proven to kill 99.99% of Avian Flu and 39 other various germs, bacteria, fungus, and viruses in mere seconds; including: MRSA, Ringworm, HIV, E-Coli, Salmonella, and Herpes. Safe for food contact surfaces (no potable rinse required) and other non-porous surfaces including electronics!

The 10oz Spray is great for facility cleaning! Use this spray in bathrooms, offices, schools, and hotels. Ideal for treating hard to clean HOT SPOTS such as phones, faxes, shared office equipment, light switches, faucets, toilet seats, door knobs, drinking fountains, keyboards and computer mouse, break room tables, etc.

PURE 24 Hour Disinfectant Cleaner

PURE Hard Surface provides an unparalleled combination of high efficacy and low toxicity with 30-second bacterial and viral kill times and 24-hour residual protection. PURE Hard Surface completely kills resistant pathogens like MRSA, VRE, CRKP and NDM-1 and also effectively eliminates dangerous fungi and viruses including HIV, Hepatitis B, Norovirus, Influenza A, Avian Influenza and H1N1. PURE Hard Surface is also registered for use on food contact surfaces and is gentle enough to be used in the presence of patients including children.

- **GRAS Status** (Generally Regarded as Safe)
- **Kills germs in as few as 30 seconds**
- **Provides ongoing surface protection for up to 24 hours**

GenEon's Duo Trio Rx & Mist Fogger

GenEon's Smart Chlorine Solution has been thoroughly tested to remediate viruses like Enterobacter D68 as well as a range of other viruses and bacteria. In addition GenEon has well documented reports of a log 5 kill (Log 5 means its dead!) pseudomonas aeruginosa (Flu) and TB in just a 30 second kill time.

GenEon's compact Trio Rx in concert with the powerful Mist Fogger, dryer sprayer can provide a fast and efficient manner for schools, universities and facilities to kill this new pest known as Enterobacter D68. The Trio Rx is the industry's only ultra-high compact and portable Smart Chlorine production device that develops s ultra-low safe FAC solution that can be put into the GenEon Mist and used to reach all the tight areas and provide comprehensive amount of solution on surfaces.

Schools back and so are all those nasty germs, take steps now to limit your facilities exposure!

Foaming Hand Sanitizer

Myers offers a full line of hand sanitizers to help fight germs and keep hands clean. From our foam and gel Instant Hand Sanitizers that are ideal when water and soap are not available to our E2 Bacteria Controlling Hand Sanitizer Cleaners that rinse off with water, we have a solution for any industry. Available in alcohol and no alcohol formulas and a variety of dispensing systems, gallons and small bottles, Myers has a product for every hand sanitizing need.

Foaming Alcohol Hand Sanitizer (62% Alcohol) is effective and convenient to sanitize hands in situations where soap and water is not available. When used properly, this fast-acting product kills 99.9% of common germs within 15 seconds. Our 62% Ethyl alcohol formula also meets CDC recommendations for the highest hand antisepsis.

Foaming Instant Hand Sanitizer (No Alcohol) is effective and convenient to sanitize hands when soap and water are not available. Formulated with 0.2% Benzethonium Chloride to eliminate 99.9% of common germs within 15 seconds. Enhanced with Aloe Vera and Vitamin E to moisturize skin. More economical, no medicinal odor and does not dry out skin like alcohol sanitizers. Non-flammable and dye free, with a light linen fragrance. Ideal where a non-alcohol product is desired. E-3 rated.

Where do germs hide?

There are trillions of germs everywhere people live, work, and play! Keeping your family safe from harmful germs and the illness they can cause is of utmost importance to today's busy workers, parents, teachers and anyone else who wants to stay healthy.

Restrooms

One of the public places most associated with germs are public restrooms, and with good reason. According to a study conducted by researchers at the University of Arizona, the most common microorganisms associated with outbreaks stemming from public restrooms include shigella, salmonella, norovirus, and hepatitis A virus.

Bacteria and viruses are ejected and aerosolized when the toilet is flushed, and these germ-filled droplets land on all surfaces in the restroom, contaminating the environment with infectious microorganisms. Researchers found that 64 percent of the time, the floor in front of the toilet in a public restroom was contaminated with coliform (fecal) bacteria, while 61 percent of the time for sinks, 20 percent of the time for the top of the toilet, 15 percent for the sink faucet, and 6 percent of the time for the toilet handle.

According to the researchers, women's restrooms were significantly more contaminated than men's restrooms; the middle stall was the most often more contaminated than others, and that airport restrooms were the germiest restrooms of all. The alarming thing is that 95 percent of people report that they wash their hands after using a public restroom, but only 67 percent actually wash their hands; only 33 percent actually use soap, and just 16 percent wash their hands for the prescribed duration of 15 to 20 seconds. To safeguard against infection, experts advise people to wash their hands thoroughly with soap and warm water after using public restrooms.

Did you know that according to a recent study conducted by researchers at the University of Arizona, the bathroom sink is the third germiest location in the average house? The study also revealed that the bathroom floor, bathroom counter, and toilet seat are the No. 6, 7, and 8 (respectively) germiest places in the rest of the house. The bathroom can frequently be one of the germ-filled places in the house, so careful attention to regular cleaning and disinfection is crucial, especially if someone in the household has a highly contagious stomach-related illness, a cold, or the flu.

A piece of advice from the experts: Close the toilet lid before you flush to keep microbes inside the bowl from splashing as far as 20 feet onto you, counters, and anything on them! And a word about cleaning the bathroom: Cleaning and disinfecting are not the same thing. Cleaning removes germs from surfaces, while disinfecting actually destroys them. Cleaning with soap and water to remove dirt and most of the germs is usually enough, but sometimes you may want to disinfect for an extra level of protection from germs. While surfaces may look clean, many infectious germs may be lurking around. In some instances, germs can live on surfaces for hours or even for days. Disinfect those areas where there can be large numbers of germs and where there is a possibility that these germs could be spread to others; these are the high-touch areas such as sink faucets, toilet handles, and door handles. When cleaning surfaces, don't let germs hang around on cleaning cloths or towels; use either paper towels that can be thrown away, cloth towels that are later washed in hot water with detergent, or disposable sanitizing wipes that both clean and disinfect.

Office Environment

Did you know that according to a recent study by researchers at the University of Arizona, the phone is the No. 1 germiest item in a typical office environment, followed (in decreasing order) by the desktop, the keyboard, the mouse, the fax machine, the photocopier, and interestingly enough, in last place is the toilet seat. Parenthetically, the average toilet seat has just 49 germs per square inch.

According to a study conducted by researchers at the University of Arizona, a lawyer's desk averages 900 bacteria per square inch, which is less than a teacher's desk, which harbors as many as 17,000 bacteria per square inch. The average desk worker's telephone had about 25,000 germs per square inch, according to the same study. The study found that on average, every 60 seconds, a working adult touches as many as 30 objects. The study advises office workers to regularly wipe down the desktop, phone, and keyboard with disinfectant wipes or use a spray disinfectant designed for hard surfaces.