

Enteroviruses

Most enterovirus infections are mild. Rarely, some strains can cause more severe illness, particularly in young children. Apart from polio, there is no vaccine available for these infections. Good hygiene is vital to prevent the spread of enterovirus infections.

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What are enteroviruses?

Enteroviruses are very common and there are many types. They include the virus that causes [polio](#) but most people who are infected with non-polio enteroviruses do not become sick or only have mild symptoms.

A mix of different enteroviruses circulate every year, so different types of enteroviruses can be common in different years. Some enterovirus strains can cause outbreaks of viral conjunctivitis or [hand, foot and mouth disease](#), while other strains are rarely associated with more severe infections such as viral meningitis, severe respiratory illness, or a polio-like paralysis.

Enterovirus infections can occur at any time of the year but they are more common in the summer and autumn months.

What are the symptoms?

Enteroviruses usually cause no illness at all but when symptoms occur they are usually mild and include:

- fever, a runny nose and cough
- skin rash, mouth blisters, muscle aches.

Some enterovirus infections are associated with:

- viral conjunctivitis
- [hand, foot and mouth disease](#).

Certain strains are associated with more severe illness (although still rare). This includes:

- Enterovirus 71 and viral meningitis (infection of the lining of the brain and/or spinal cord) and other neurological disease, such as viral encephalitis (infection of the brain), muscle weakness or paralysis
- Enterovirus D68 and severe respiratory illnesses in children and teenagers. This caused a nationwide outbreak in 2014 in the United States.

How is it spread?

Enteroviruses are present in the respiratory secretions, saliva or faeces (stool) of an infected person and in the fluid of blisters for people with hand, foot and mouth disease. They are usually spread from person to person through close contact, such as:

- touching or shaking hands, with an infected person then touching your eyes, nose, or mouth before washing your hands
- touching objects or surfaces that have the virus on them, then touching your eyes, nose, or mouth before washing your hands
- changing nappies of an infected baby, then touching your eyes, nose, or mouth before washing your hands.

Who is at risk?

Anyone can get infected with enteroviruses. In general, infants, children, and teenagers are most likely to get infected and become ill. This is because they do not yet have immunity (protection) from previous exposures to these viruses. Young babies appear to be at risk of more severe disease.

How is it prevented?

There is no vaccine in Australia to protect you from non-polio enterovirus infections.

Good hygiene is the best protection. Wash hands with soap and water after going to the toilet, before eating, after wiping noses, and after changing nappies or soiled clothing.

People should avoid sharing cups, eating utensils, items of personal hygiene (for example: towels, washers and toothbrushes), and clothing (especially shoes and socks). Thoroughly wash any soiled clothing and any surfaces that may have been contaminated by people with enterovirus infections.

Teach children about cough and sneeze etiquette, including:

- covering coughs and sneezes with a tissue, or coughing into an elbow (not into your hands)
- disposing of used tissues in the bin straight away
- washing your hands afterwards with soap and water.

People who are unwell with colds, flu-like illness or gastro illness should stay away from small babies. If you are caring for a small baby and are unwell, wash your hands or use an alcohol-based hand rub before touching or feeding the baby.

How is it diagnosed?

Your doctor may diagnose infection based on the symptoms. If required, stool samples, nose and throat swabs, cerebrospinal fluid, or blood can be tested for enterovirus at a laboratory. Specialist tests are needed to find out the particular type of enterovirus.

How is it treated?

There is no specific treatment for enteroviruses; treatment is supportive only.

What are the signs of a serious infection?

Signs that a young child might have a more serious form of enterovirus infection include fever (38°C or above) with any of the following:

- Abnormal movements / jerking movements, particularly in sleep
- Excessive irritability
- Excessive tiredness, drowsiness
- Unsteady walking or weakness
- Rapid breathing
- Not passing urine.

If any of these signs are present then the child should be reviewed by a doctor urgently even if they have been checked earlier in the illness.

What is the public health response?

Non-polio enteroviruses are not a notifiable condition under the Public Health Act. NSW Health works with clinicians to detect and manage outbreaks of severe disease.

Outbreaks

Outbreaks of enterovirus 71 were reported in NSW in 2001 and 2013, mainly affecting young children and causing neurologic disease and other complications. Large outbreaks have also been reported in Asia.

Children under 5 years of age, particularly those under 2 years, are most likely to develop severe disease during outbreaks. However severe disease is still rare in these groups. Sometimes outbreaks of severe illness coincide with hand, foot and mouth disease outbreaks but not always.

In April 2018, Illawarra Shoalhaven Local Health District reported an increase in viral meningitis cases caused by enterovirus 71. Unusually, most of the reported cases were in adults. Most people affected had only a short illness without complications and only one reported prior contact with hand, foot and mouth disease.

Further information

For further information see the [Hand, foot and mouth disease](#) fact sheet or call your local public health unit on 1300 066 055.