



Hand, foot, and mouth disease

Hand, foot, and mouth disease is a viral infection that causes a blister-like rash involving the hands, feet, and mouth. The infection occurs most commonly in children less than 10 years of age and most often in the summer and fall months. Outbreaks may occur in childcare settings and preschools.

Hand, foot, and mouth disease is often confused with hoof and mouth disease (also referred to as foot and mouth disease). Hoof and mouth disease is a disease of cattle, sheep, and swine. The two diseases are caused by different viruses and are not related. Humans do not get the animal disease and vice versa.

School health and childcare provider information

Cause

Coxsackievirus A16 (most common) and A6; enterovirus 71 (EV71).

Symptoms

Blister-like rash occurs in the mouth, on the sides of the tongue, inside the cheeks, and on the gums. Blister-like rash may occur on the palms and fingers of the hands, the soles of the feet, or the buttocks. These sores may last 7 to 10 days.

Low-grade fever lasting 1 to 2 days, runny nose, and/or sore throat may also occur. Some children may not have any symptoms.

The disease is usually self-limited, but in rare cases has been fatal in infants.

Spread

The viruses leave the body through the stool of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with stool are placed in the mouth. It is also spread through droplets that are expelled from the nose and mouth of an infected person during sneezing and coughing and by direct contact with respiratory secretions. Less likely to be spread by direct contact with fluid from the blisters.

Incubation

It usually takes 3 to 6 days after exposure for symptoms to begin.

Contagious period

Most contagious during the first week of illness but also for several weeks after illness. Virus may be shed for several weeks in stool. Infected persons who may not seem sick are still able to spread the virus.

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Exclusion

Childcare and school

Until fever is gone (without the use of fever reducing medication), and child is well enough to participate in routine activities (sores or rash may still be present).

Exclusion will not reduce transmission, as some children may shed the virus without showing symptoms, and other children who become ill may shed the virus for weeks in the stool.

Treatment

No specific treatment.

Prevention

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues in the trash.
- Wash hands thoroughly with soap and warm running water after using the toilet, after changing diapers, after handling anything soiled with stool, secretions from the nose or mouth, or fluid from the blisters, before preparing food, and before eating. **Thorough handwashing is the best way to prevent the spread of communicable diseases.** Staff should closely monitor handwashing of all children after they have used the bathroom or have been diapered.
- Clean and disinfect diapering area and potty chairs after each use. Clean and disinfect bathroom toilets, sinks, and toys at least daily and when soiled (see Section 2).
- Clean and sanitize mouthed toys, objects, and surfaces at least daily and when soiled (see Section 2).

For more information, call Hennepin County HSPHD-Epidemiology at (612) 543-5230 or call your local health department.

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