

What is hand, foot, and mouth disease?

Hand, foot, and mouth disease (HFMD) is a common illness of infants and children. It is characterized by fever, sores in the mouth, and a rash with blisters. HFMD begins with a mild fever, poor appetite, malaise ("feeling sick"), and frequently a sore throat. One or 2 days after the fever begins, sores develop in the mouth. They begin as small red spots that blister and then often become ulcers. They are usually located on the tongue, gums, and inside of the cheeks. The skin rash develops over 1 to 2 days with flat or raised red spots, some with blisters. The rash does not itch, and it is usually located on the palms of the hands and soles of the feet. It may also appear on the buttocks. A person with HFMD may have only the rash or the mouth ulcers.

Is HFMD the same as foot-and-mouth disease?

No. HFMD is a different disease than foot-and-mouth disease of cattle, sheep, and swine. Although the names are similar, the two diseases are not related at all and are caused by different viruses.

Is HFMD serious?

Usually not. Nearly all people with HFMD recover without medical treatment. HFMD usually resolves in 7 to 10 days. There are no common complications. Rarely, this illness may be associated with aseptic or viral meningitis, in which the person has fever, headache, stiff neck, or back pain, and may need to be hospitalized for a few days.

What causes HFMD?

Several different viruses cause HFMD. The most common cause is *coxsackievirus A16*; occasionally, other strains of *coxsackievirus A* or *enterovirus 71* cause HFMD. The coxsackieviruses are members of a group of viruses called the enteroviruses. The enterovirus group includes polioviruses, coxsackieviruses, and echoviruses.

Is it contagious?

Yes, HFMD is moderately contagious. Infection is spread from person to person by direct contact with nose and throat discharges or the stool of infected persons. A person is most contagious during the first week of the illness. HFMD is not transmitted to or from pets or other animals.

How soon will someone become ill after getting infected?

The usual period from infection to onset of symptoms is 3 to 6 days. Fever is often the first symptom of HFMD.

Who is at risk for HFMD?

HFMD occurs mainly in children under 10 years old, but adults might also be at risk. Infection results in immunity to the specific virus, but a second episode can occur following infection with a different member of the enterovirus group.

When and where does HFMD occur?

Individual cases and outbreaks of HFMD occur worldwide, more frequently in summer and early autumn.

How is HFMD diagnosed?

HFMD is one of many infections that result in mouth sores. Another common cause is oral herpesvirus infection, which produces an inflammation of the mouth and gums (sometimes called stomatitis). Usually, the physician can distinguish between HFMD and other causes of mouth sores based on the age of the patient, the pattern of symptoms reported by the patient or parent, and the appearance of the rash and sores on examination. A throat swab or stool specimen may be sent to a laboratory to determine which

enterovirus caused the illness. Since the testing often takes 2 to 4 weeks to obtain a final answer, the physician usually does not order these tests.

How is HFMD treated? Can it be prevented?

No specific treatment is available for this infection. Symptomatic treatment is given to provide relief from fever, aches, or pain from the mouth ulcers. Preventive measures include frequent handwashing, especially after diaper changes; disinfection of contaminated surfaces by household cleaners; and washing soiled articles of clothing. Children are often excluded from child care programs, schools, or other group settings during the first few days of the illness. These measures may reduce the spread of infection, but they will not completely interrupt it.

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<http://www.cdc.gov/ncidod/dvrd/hfmd.htm>