



**CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
DIVISION OF DISEASE CONTROL**

## **Hand Foot and Mouth Disease (Coxsackie Virus)**

### **What is hand foot and mouth disease (HFMD)?**

Hand Foot and Mouth disease (HFMD) is a viral illness caused by certain types of Coxsackie virus. In climates such as Philadelphia, HFMD is more common in the summer and autumn. It is a fairly common, mild disease that usually does not require medical treatment. In very rare instances, viruses that cause HFMD can also cause more serious infections, such as viral meningitis.

### **Who gets HFMD?**

Anyone can get HFMD, but infection is more common in infants and young children. Infants and children are most susceptible to infection because they are less likely to have developed immunity from previous exposure to the viruses.

### **How is HFMD spread?**

HFMD is spread by direct contact with the nose and throat discharges, saliva, or stool of infected persons. HFMD can also be spread by direct contact with the fluid from blisters. Infected persons can be contagious even if they have no symptoms.

### **What are the symptoms of HFMD?**

HFMD is characterized by fever, sores in the mouth, and a skin rash with blisters. Illness typically begins with a mild fever, poor appetite, malaise, and frequently a sore throat. The mouth sores begin as small red spots on the tongue, gums, and inside of the cheeks. They can then blister and become ulcers. The skin rash is not itchy and is characterized by flat or raised red spots, some with blisters. This rash usually appears on the palms of the hands and soles of the feet, and may also appear on the buttocks. A person with HFMD can have only the rash, only the mouth ulcers, or both.

### **How soon after infection do symptoms appear (*incubation period*)?**

The usual period from exposure to onset of symptoms is 3 to 7 days. Fever is often the first symptom of HFMD.

## **When and for how long is a person able to spread HFMD?**

Infected persons can excrete the virus in their stool for several weeks after they have been infected. However, an infected person is most contagious during the first week of their illness.

## **How is HFMD diagnosed?**

HFMD is usually diagnosed by a clinician on the basis of the characteristic rash and mouth sores.

## **What is the treatment for HFMD?**

There is no specific treatment for HFMD. Symptomatic treatment can be given for fever and pain from the sores.

## **Should an infected person be isolated or excluded from school?**

Children are often excluded from group settings during the first few days of the illness, when they are most contagious. This may help reduce the spread of infection, but will not completely interrupt it. Some benefit may also be gained by longer durations of exclusion for drooling children who have blisters in their mouths and for children who have weeping lesions on their hands.

## **What can be done to prevent the spread of HFMD?**

The risk of HFMD infection can be lowered by good hygienic practices. Frequent hand washing is very important, especially after diaper changes and after contact with blisters or secretions from the nose and mouth. Contaminated surfaces and soiled items can be cleaned by first washing them with soap and water, and then disinfecting them by using a diluted solution of chlorine-containing bleach (made by mixing approximately  $\frac{1}{4}$  cup of household bleach with 1 gallon of water). Avoidance of close contact (kissing, hugging, sharing utensils, etc.) with infected persons may also help to reduce the risk of infection.