

Prevention of Hand, Foot and Mouth Disease and Enterovirus 71 Infection

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Hand, foot and mouth disease (HFMD)

- It is a common disease in **children**
- Caused by **enteroviruses** such as coxsackieviruses and enterovirus 71 (EV71)
- The usual peak season for HFMD in Hong Kong is from May to July and a smaller peak may also occur from October to December

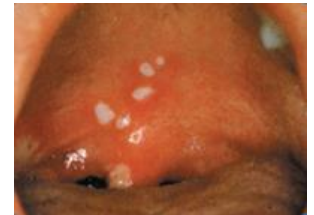
Enterovirus 71 infection

- EV71 is a single-stranded RNA virus and is one of the causative agents for HFMD
- It occurs commonly in Southeast Asian areas, especially in summer and early autumn. Outbreaks have been reported in Australia, Mainland China, Malaysia, Singapore, Taiwan, etc.
- The EV71 infection is of particular concern as it is more likely associated with **severe complications** (such as viral meningitis, encephalitis, poliomyelitis-like paralysis, myocarditis) and even death

Clinical features

EV71 infection commonly presents with symptoms of HFMD

- Usually begins with fever, poor appetite, tiredness and sore throat
- One to two days after fever onset, painful sores may develop in the mouth
 - Begin as small red spots with blisters and then often become ulcers
 - Usually on the tongue, gum and inside of the cheeks
- There may also be non-itchy skin rash
 - Sometimes accompanied by blisters
 - Usually on the palms of the hands and soles of the feet; may also appear on the buttocks and/or genitalia



Clinical features

- A person with HFMD may not have symptoms, or may only have rash or mouth ulcers
- HFMD will result in immunity to (protection against) the specific virus that has caused the infection. However, subsequent infections with a different virus may result in further episodes of HFMD

Mode of transmission

- Most contagious during the first week of the illness and the viruses can be found in stool for weeks.
- Mainly spreads by contact with an infected person's nose or throat discharges, saliva, fluid from vesicles or stool, or after touching contaminated objects
- Incubation period of HFMD is about 3 – 7 days while EV71 infection ranges from 3 – 5 days



Management

- No specific drug treatment is available for EV71 infection and HFMD currently.
- Drink plenty of water and take adequate rest
- Receive symptomatic treatment to reduce fever and pain from oral ulcers
- Sick children should stay away from school or gatherings till all vesicles have dried up to avoid spreading the disease

Management

- If infection is caused by EV71, the patient is advised to stay at home for **two more weeks after recovery from the disease** (i.e. fever and rash have subsided, and vesicles have dried and crusted)
- Parents should monitor the child's condition closely and seek medical advice immediately if there is **persistent high fever, repeated vomiting, persistent sleepiness or drowsiness, myoclonic jerks or sudden limb weakness**



Prevention

- Personal hygiene
- Environmental hygiene



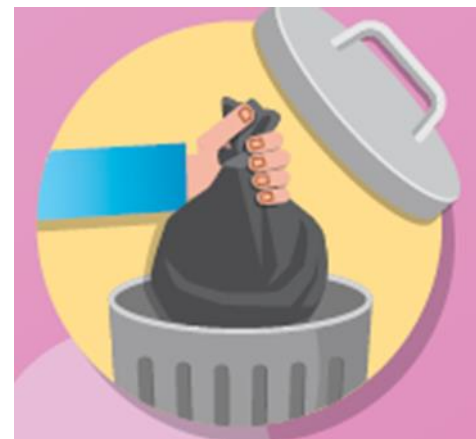
Personal hygiene

- **Perform hand hygiene frequently.** Wash hands with liquid soap and water, and rub for at least 20 seconds. Then rinse with water and dry with either a clean cotton towel or a paper towel, especially:
 - Before and after touching the mouth, nose or eyes
 - Before eating or handling food
 - After touching blister
 - After using the toilet
- Alcohol-based handrub **should not substitute** hand hygiene with liquid soap and water, as alcohol **does not effectively** kill some viruses (e.g. EV71) causing HFMD



Personal hygiene

- Cover your mouth and nose with tissue paper when coughing or sneezing. Do not spit or litter. Use tissue paper to hold your spit. Dispose of soiled tissues into a lidded rubbish bin, and then wash hands thoroughly
- Do not share towels and personal items with others
- Avoid close contact (such as kissing, hugging) with infected persons
- Refrain from work or attending class at school, and seek medical advice if feeling unwell
- Exclude infected persons from handling food and from providing care to children, elderly and immunocompromised people



Environmental hygiene

- Regularly clean and disinfect frequently touched surfaces such as furniture, toys and commonly shared items with **1:99** diluted household bleach (mixing 1 part of 5.25% bleach with 99 parts of water), leave for 15 – 30 minutes, and then rinse with water and keep dry
- Use absorbent disposable towels to wipe away obvious contaminants such as respiratory secretions, vomitus or excreta, and then disinfect the surface and neighbouring areas with **1:49** diluted household bleach (mixing 1 part of 5.25% bleach with 49 parts of water), leave for 15 – 30 minutes and then rinse with water and keep dry



- Avoid group activities when HFMD outbreak occurs in the school or institution. Besides, minimise staff movement and arrange **the same group of staff** to take care of **the same group of children** as far as possible



For more information about HFMD and EV71 infection

- Please visit the Centre for Health Protection website

<https://www.chp.gov.hk/en/features/16354.html>



Thank you