



One of the most common symptoms of HFMD is that a child becomes less active and lethargic.

# The lowdown on HFMD

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**ENTEROVIRAL** vesicular stomatitis, the medical term for hand, foot and mouth disease (HFMD), is a common infection in children and one that can affect any child regardless of demographic and logistic differences. Lately in Malaysia, there has been an outbreak of HFMD cases in major pandemic proportions.

## Causes

HFMD is caused by the coxsackie virus of the enteroviral group of virus that belongs to the Picornaviridae family, which includes poliovirus. The most common virus is the one that is causing HFMD Coxsackie A followed by Enterovirus 71. The Picornaviridae virus thrives in human body secretions such as saliva and stool.

## Symptoms

The most common symptoms are fever and a general feeling of being unwell (less active and lethargic). Within 24 to 48 hours of fever, skin manifestation is noted on the extremities (around the mouth, hands, palms, feet and soles) and ulcers in the oral cavity (tongue

and palate). Fever can start at a low grade but commonly, it spikes up to 40 degrees especially in the first 24 hours. The skin manifestation is commonly flat and discoloured spots or bumps. The skin manifestation is not itchy but for some children, it can be painful thus their refusal to bear weight (stand and walk) if the abundance of lesions are on their feet and soles. The mouth ulcers would result in a refusal to swallow, hence the drooling and inability to tolerate either liquid or solid intake orally.

## How HFMD spreads

The HFMD is mainly transmitted through nasopharyngeal secretions, which are directly in contact with virus particles of the body secretions, especially the saliva of an affected child. It can also be transmitted through faecal-oral transmission due to poor hand hygiene after coming in contact with the stool of an affected child. Therefore, it is common for outbreaks to take place in nurseries, playschools or classrooms. Another example of how HFMD can spread to other children is through direct contact with contaminated saliva from swimming pools and playgrounds.



While pills to reduce fever are safe to be taken, antibiotics are a no-no as it may cause side effects.

## Diagnosis

The only laboratory method to diagnose HFMD is through viral detection from infected secretions but this process is tedious, expensive and slow in getting results. The main diagnostic tool is the clinical features of the skin rash and oral ulcers. The doctor can easily diagnose HFMD based on a clinical assessment.

A good history can also help in diagnosis especially if a child has been in contact with an affected child.

## Treatment

The mainstay of treatment is to ensure adequate hydration. This means the child should be able to drink fluids and still be able to pass urine. Reduction in solid intake is not a major





Be sure your infected child is well hydrated as fluid is more important than solid food intake at this juncture.

concern, though.

Other symptomatic treatments include antipyretic, topical drop or cream for oral ulcers. On occasion, if the symptoms are florid (red or flushed complexion), some clinical centres advocate intravenous antiviral. Topical cream is not needed for the skin rash as this has proven to be ineffective to treat the HFMD skin rash. We should totally avoid administering antibiotics as the illness is due to a viral infection.

Admission to the ward is mainly for intravenous hydration, when a child shows a reduction in intravascular volume, such as tears and urine.

#### Prevention

The main prevention method is to ensure good hygiene especially of the oral cavity. No vaccines are available to date despite the 2015 vaccine for Enteroviral 71 which was implicated, but there has been no further development since. Prevention of contact with affected children should be put in place if outbreaks occur. Avoid going to nurseries when this happens.

#### WHAT SHOULD PARENTS DO

- As parents, we would want our children to be as healthy as they can be. Ensuring good hygiene is crucial such as practising oral hygiene, taking frequent baths and avoiding crowded areas such as swimming pools and playgrounds.
- Bring your child to the doctor if the child shows symptoms of HFMD. Make sure your child is able to drink healthy fluids while waiting to be treated at the clinic. Parents should provide adequate hydration including cold milk. Also check the presence of urine by checking the child's diapers. Poor hydration will reduce urine output.
- Antipyretic (drug to reduce fever) can be given to the child but due to the difficulty in swallowing because of the pain, administering suppository via rectal antipyretic is another option. Parents should not worry if the child refuses to eat. Hydration and fluid intake are more important than food intake. Do note that having your child hospitalised for intravenous hydration to boost



HFMD can spread through direct contact with contaminated saliva from swimming pools.

appetite is not useful. Intravenous hydration is mainly to rehydrate due to loss of fluid and not because of the child's refusal to eat. The application of topical (localised) oral gels or creams which help to heal oral ulcers can help accelerate the increase of oral fluid intake.

- Avoid unnecessary treatments like skin creams and antibiotics as these measures are of no effect and may even cause side effects. Administering multivitamins to increase appetite is also not indicated and unnecessary.
- Currently, the Ministry of Health (MOH) has authorised hospitals to inform MOH regarding cases of HFMD so that the ministry can pin down the source.

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Look out for discoloured spots or bumps in your child.