



Hand, Foot, and Mouth Disease

Definition:

Hand, foot, and mouth disease is a viral illness that mostly affects children and infants younger than five years of age. However, it can sometimes occur in older children and adults. It is most commonly caused by a group of viruses called enteroviruses. Hand, foot, and mouth should not be confused with the livestock disease “foot-and-mouth disease”; animals do not play a role in transmission of human hand, foot, and mouth disease.

Signs and symptoms:

Generally, starts with:

- Fever
- Poor appetite
- Malaise
- Sore throat

After the fever, small red sores develop in the mouth (often in the back) and then become ulcers. A skin rash with flat or raised spots then develops, which can become blisters. These appear on the palms of the hands, the soles of the feet, and less commonly on the knees, elbows, buttocks or genitals.

Transmission:

- The virus exists in respiratory secretions (saliva, nasal mucus), the fluid of blisters, and feces.
- The virus is then spread through close personal contact (kissing), through the air (coughing or sneezing), coming into contact with feces or touching contaminated surfaces.
- Uncommonly, hand, foot, and mouth disease may be spread through swallowing water in swimming pools that infected children contaminated.
- Those infected are most contagious during the first week but may remain contagious for weeks afterwards. Vigilance on good hygiene (hand washing) should be maintained and encouraged.

Diagnosis:

As mouth sores may be caused by many things, suspect cases should see a trained healthcare provider to differentiate mouth sores resulting from hand, foot, and mouth disease. Samples from the mouth and throat may also be collected and sent to a laboratory to confirm the diagnosis.

Role of the School Nurse:

Prevention

- Provide education to staff, including the athletic director, and students about the importance of good hand washing and covering the mouth and nose when sneezing or coughing.
- Discourage close contact such as kissing, hugging, or sharing eating utensils or cups with people with hand, foot, and mouth disease.

- Recommend cleaning and disinfecting surfaces and items, such as toys, handled by an infected child.

Treatment Recommendations

- There is no specific treatment for hand, foot, and mouth disease.
- Over-the-counter medications can relieve pain and fever (do not give Aspirin to children, as it may cause a rare but serious illness caused Reye syndrome). Mouthwash or spray may relieve mouth pain associated with mouth sores.

Exclusions

- The student should be excluded from school during the acute phase when there are:
 - Draining lesions from the hand
 - Lesions in the mouth, or if
 - The student is abnormally drooling.

Reporting Requirements

- Individual cases of hand, foot, and mouth disease are not reportable.
- Outbreaks are reportable and are identified when $\geq 15\%$ of students are absent due to illness

Resources:

- Federal CDC website: <http://www.cdc.gov/hand-foot-mouth/index.html>
- American Academy of Pediatrics Infectious Disease Curriculum for hand, foot, and mouth disease: http://www.healthychildcare.org/PDF/InfDiseases/M3_HandFoot.pdf