

Herpes Virus Fact Sheet

Will you get caught under the mistletoe this holiday season? If so watch out for cold sores! Cold sores, also called fever blisters, are painful blisters caused by the herpes simplex virus 1 (HSV-1). They may show up anywhere on your body, but are most likely to appear outside of your mouth and lips.

General Information

Virology

Herpes simplex virus is a highly contagious enveloped virus (easier to inactivate compared to non-enveloped viruses). Herpes simplex virus is a member of the Herpesviridae family that infects humans. Herpes simplex virus can spread when an infection person is producing and shedding the virus. HSVs may persist in an inactive but persistent form known as latent infection.



Epidemiology of transmission

HSV-1 is highly contagious and is mainly transmitted by oral-to-oral contact via saliva and surfaces in or around the mouth. HSV-1 can be transmitted from oral to skin surfaces that appear normal and when there are no symptoms present. However, the greatest risk of infection is when there are active sores. When the blisters rupture, the secretion carries millions of pathogens. Thus, patients must be constantly attentive to the techniques that help prevent transmission.

In rare circumstances, HSV-1 can be transmitted from a mother with genital HSV-1 infection to her infant during delivery.

Clinical manifestations

The initial viral tissue invasion typically occurs in childhood or adolescence. Oral herpes infection is mostly symptomatic, and the majority of people with HSV-1 infection are unaware they are infected. Symptoms of oral herpes include painful blisters or open sores called ulcers in or around the mouth. Sores on the lips are commonly referred to as “cold sores.” Infected persons will often experience a tingling, itching or burning sensation around their mouth, before the appearance of sores. After initial infection, the blisters or ulcers can periodically recur. The frequency of recurrences varies from person to person.

In immunocompromised people, such as those with advanced HIV infection, HSV-1 can have more severe symptoms and more frequent recurrences. Rarely, HSV-1 infection can also lead to more severe complications such as encephalitis or keratitis (eye infection).

Basic Prevention

Your doctor may prescribe antiviral medication for individuals who those who frequently develop cold sores or for those who are at a higher risk of complications. To prevent contracting HSV-1, avoid skin-to-skin contact with others while blisters are present. Avoid oral contact with anything that might touch the lips or skin of another person before it is decontaminated. Avoid sharing objects such as drinking glasses, coffee mugs, straws, washcloths, towels, utensils, lip balm, and medication dosing devices.

To prevent spreading HSV-1 it is important to practice good hand hygiene. When you have a cold sore, wash your hands carefully before touching yourself and others, especially babies.



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Infection Prevention and Control Measures

Facility Prevention Measures

Routine / Standard Precautions are sufficient preventative measures to follow when providing care to patients who are suspected or confirmed to have cold sores. Contact Precautions should be used for severe cases.

- Use PPE barriers (such as gloves) when anticipating contact with an infectious individual
- Immediately wash hands and other skin surfaces after contact with a suspected or confirmed infectious individual
- Gloves should be worn when handling potentially infectious specimens, cultures or tissues; laboratory coats, gowns or suitable protective clothing should be worn

Environmental control measures

HSV-1 is an enveloped (easy to kill) virus that is capable of surviving on surfaces for as long as the surface remains moist. HSV-1 is highly susceptible to routinely used hospital grade disinfectants.

EPA/Health Canada registered surface disinfectants with proven efficacy against both enveloped and non-enveloped viruses should be used for daily environmental surface cleaning/disinfection. Routine cleaning and disinfection should be performed on frequently touched environmental surfaces. There should be prompt removal of body fluids such as saliva, followed by routine disinfection. All patient care equipment should be cleaned and disinfected as per Routine / Standard Practices before reuse with another patient or a single use device should be used and discarded in a waste receptacle after use. Semi critical and Critical instruments which come into contact with mucous membranes or penetrate sterile tissues need to be adequately sterilized using appropriate methods of sterilization.

References:

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