



# Herpes Simplex Virus (HSV)

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## ***WHAT IS HERPES SIMPLEX VIRUS?***

Herpes simplex virus (HSV) refers to a group of viruses that infect humans. Like [herpes zoster](#), HSV causes painful skin eruptions. Itching and tingling are usually the first signs, followed by a blister that breaks open. The infection stays dormant in nerve cells. This is called latency. However, HSV can become active again with no warning. HSV can be active without symptoms or visible signs.

HSV1 is the common cause of cold sores (oral herpes) around the mouth. HSV2 normally causes genital herpes. However, through sexual activity, HSV1 can cause infections in the genital area and HSV2 can infect the mouth area.

HSV is a very common disease. Approximately 45 million people in the U.S. have HSV infection, which is about 1 in 5 people over the age of 12. The U.S. Centers for Disease Control and Prevention (CDC) estimates that there are 1 million new genital herpes infections each year. The rates of HSV infection have increased significantly in the past 10 years or so. About 80% of people with HIV are also infected with HSV2.

HSV2 infection is more common in people assigned female at birth (AFAB). It infects about 1 in 4 AFAB people and about 1 in 5 people assigned male at birth (AMAB). Genital HSV can cause potentially fatal infections in babies. If a pregnant person has active genital herpes at the time of childbirth, a cesarean delivery is usually performed.

Repeat outbreaks of HSV may occur even in people with normal immune systems. Prolonged HSV outbreaks may be a sign of a weakened immune system. This includes people with HIV, especially those over 50 years old. Fortunately, prolonged outbreaks that fail to heal are rare except in people with HIV who have very low [CD4 cell counts](#). Also, prolonged outbreaks have become very uncommon since the introduction of more effective antiviral treatments in the 1990s.

## ***HSV AND HIV***

HSV is not one of the infections that are part of the official diagnosis of [AIDS](#). However, people with both HIV and HSV are likely to have more frequent outbreaks of HSV. These outbreaks can be more serious and last longer than for people without HIV.

HSV sores provide a way for HIV to get past the body's immune defenses and make it easier to [get or transmit HIV infection](#). A recent study found that people with HSV had 3 times the risk of becoming infected with HIV as

people without HSV. A recent study found that treating HSV can lead to a significant reduction in HIV [viral load](#). However, another study found that treating genital HSV did not prevent new HIV infections.

People with both HIV and HSV also need to be very careful during outbreaks of HSV. Their HIV viral load usually goes up, which can make it easier to transmit HIV to others. On the other hand, treatment of HSV in people with both HIV and HSV can reduce HIV viral load. It might also reduce the risk of transmitting HIV to others.

### ***HOW IS HSV TRANSMITTED?***

HSV infections are passed from person to person by direct contact with an infected area. **You don't have to have an open HSV sore to spread the infection!** Also, most people with HSV don't know that they are infected and aren't aware that they could be spreading it. In fact, in the U.S., only about 9% of people with HSV infection know that they have it.

### ***HOW IS HSV TREATED?***

The standard treatment for HSV is the drug acyclovir, given orally (in pill form) from 2-5 times a day. Another form of acyclovir is valacyclovir, which can be taken just 2-3 times a day. However, it is much more expensive than acyclovir. Famciclovir is another drug used to treat HSV. In 2011 there were several reports that using acyclovir or valacyclovir reduced HIV viral load and slowed disease progression.

These drugs do not cure HSV infections. However, they can make the outbreaks shorter and less severe. Healthcare providers may prescribe maintenance therapy (daily anti-HSV medications) for people with HIV who have had repeated outbreaks. Maintenance therapy will prevent most outbreaks. It also significantly decreases the number of days each month when HSV can be detected on the skin or mucous membranes, even when there are no symptoms.

### ***CAN HSV BE PREVENTED?***

It is difficult to prevent the spread of HSV partly because most infected people don't know that they carry HSV and can spread it. Even people who know they are infected with HSV may not realize they can transmit the infection without an open HSV sore.

[Condoms](#) can reduce the rate of HSV transmission. However, they cannot prevent it. HSV infections can be transmitted to and from a larger genital area, such as the area covered by boxer shorts, and also around the mouth. If people with HSV take valacyclovir every day, they can reduce the risk of transmitting HSV to others. Once-daily valacyclovir is approved for people without HIV who have up to 9 outbreaks a year. However, once-daily therapy is less effective in people with HIV and others with very frequent episodes.

Drug companies are working on vaccines to prevent HSV. One vaccine showed good results against HSV2 in women but not in men. No vaccines have been approved yet to prevent HSV infection, but research is ongoing in this area.

### ***THE BOTTOM LINE***

Herpes simplex virus (HSV) is a viral infection that can cause genital herpes or cold sores around the mouth.

Most people infected with HSV don't know it. HSV is transmitted easily from person to person during sexual activity or other direct contact with a herpes infection site. HSV can be transmitted even when there is no visible open sore.

There is no cure for HSV. It is a permanent infection. People with HSV have occasional outbreaks of painful blisters. When each outbreak ends, the infection becomes latent for a while. People with HIV have more frequent and more serious outbreaks of HSV.

### ***MORE INFORMATION***

CDC: [Genital Herpes](#)

HIV.gov: [Herpes Simplex Virus](#)

nam aidsmap: [Herpes](#)

UCSF HIV InSite: [Herpes Simplex Virus and HIV](#)

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