



Vulvovaginal Disorders: An algorithm for basic adult diagnosis and treatment

GENITAL HERPES

What is genital herpes?

Genital herpes is an infection caused by the herpes simplex virus (HSV). There are two types of HSV, and both can cause genital herpes. HSV type 1 most commonly infects the lips or nose, causing sores known as fever blisters or cold sores, but it also can infect the genital area and produce sores there. HSV type 2 is the usual cause of genital herpes, but it also can infect the mouth during oral sex.

Both HSV 1 and 2 can produce sores (also called lesions) in and around the vaginal area, on the penis, around the anal opening, and on the buttocks or thighs. Occasionally, sores also appear on other parts of the body where the virus has entered through broken skin.

HSV remains in certain nerve cells of the body for life, and can produce symptoms off and on in some infected people. Others may have only one outbreak. The reason is not well understood, although some strains of the virus appear more active in causing disease (more virulent).

How does someone get genital herpes?

Most people get genital herpes by having sex with someone who is having a herpes “outbreak.” This outbreak means that HSV is active. When active, the virus usually causes visible sores in the genital area. The sores cast off (shed) viruses that can infect another person. Sometimes, however, a person can have an outbreak and have no visible sores at all. People often get genital herpes by having sexual contact with others who don’t know they are infected or who are having outbreaks of herpes without any sores.

A person with genital herpes also can infect a sexual partner during oral sex. A person who has oral herpes can pass the virus to his/her own genital area or transmit the virus to an uninfected person during sex. The virus is spread only rarely, if at all, by touching objects such as a toilet seat or hot tub.

What are the symptoms?

Unfortunately, most people who have genital herpes don’t know it because they never have any symptoms, or they do not recognize any symptoms they might have. When there are symptoms, they can be different in each person. Most often, when a person becomes infected with herpes for the first time, the symptoms will appear within two to 10 days. These first episodes of symptoms usually last two to three weeks.

Early symptoms of a genital herpes outbreak include:

- itching or burning feeling in the genital or anal area.
- pain in the legs, buttocks, or genital area.
- discharge of fluid from the vagina.
- feeling of pressure in the abdomen.

Within a few days, sores appear near where the virus has entered the body, such as on the mouth, penis, or vagina. They



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also can occur inside the vagina and on the cervix in women, or in the urinary passage of women and men. Small red bumps appear first, develop into blisters, and then become painful, open sores. The blisters often break down quickly and are not always seen looking like a typical blister, but rather, as a raw spot. Over several days, the sores become crusty and then heal without leaving a scar. Some other symptoms that may go with the first episode of genital herpes are fever, headache, muscle aches, painful or difficult urination, vaginal discharge, and swollen glands in the groin area.

Will I ever have outbreaks again?

If you have been infected by HSV 1 and/or 2, you will probably have symptoms or outbreaks from time to time. After the virus has finished being active, it then travels to the nerves at the end of the spine where it stays for a while. Even after the sores are gone, the virus stays inside the nerve cells in a still and hidden state, which means that it is inactive.

In most people, the virus can become active several times a year. This is called a recurrence. But scientists do not yet know why this happens. When the virus becomes active again, it travels along the nerves to the skin, where it usually causes new sores.

Sometimes, the virus can become active but not cause any sores that can be seen. At these times, small amounts of the virus may be shed at or near places of the first infection, in fluids from the mouth, penis, or vagina, or from barely noticeable sores. You may not notice this shedding because it often does not cause any pain or feel uncomfortable. Even though you might not be aware of the shedding, you still can infect a sex partner during this time.

After the first outbreak, any future outbreaks are usually mild and last only about a week. An infected person may know that an outbreak is about to happen by feeling a tingling feeling or itching in the genital area, or pain in the buttocks or down the leg. For some people, these early symptoms can be the most painful and annoying part of an episode.

Sometimes, only the tingling and itching are present and no visible sores develop. At other times, blisters appear that may be very small and barely noticeable, or they may break into open sores that crust over and then disappear.

The frequency and severity of the recurrent episodes vary greatly. While some people have only one or two outbreaks in a lifetime, others may have several outbreaks a year. The number and pattern of repeat outbreaks often change over time for a person. Scientists do not know what causes the virus to become active again. Although some people with herpes report that their outbreaks are brought on by another illness, stress, or having a menstrual period, outbreaks often are not predictable. In some cases, outbreaks may be connected to exposure to sunlight.

How is genital herpes diagnosed?

Because the genital herpes sores may not be visible to the naked eye, a doctor or other health care worker may have to do several laboratory tests to try to prove that symptoms are caused by the herpes virus. Cultures need to be timed just right to prove that the virus is active in a sore area. Cultures that are not timed correctly may be falsely negative.

A blood test can show if a person has been infected at any time with HSV and can tell whether type 1 or type 2 is present, but it cannot tell where the infection is located. A positive culture from the sore site will confirm that herpes is present. A positive blood test for type 2 herpes almost always means the infection is genital. A positive blood test for type 1 herpes will not identify the location and some deductive reasoning will have to be used to diagnose.



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What is the treatment?

Although there is no cure for genital herpes, your doctor might prescribe one of three medicines to treat it, all of which can treat first or later episodes and also prevent future outbreaks if taken on a daily basis:

- Acyclovir (Zovirax®)
- Famciclovir (Famvir®)
- Valacyclovir (Valtrex®)

During an active herpes episode, whether the first episode or a repeat one, you should follow a few simple steps to speed healing and avoid spreading the infection to other places on the body or to other people:

- Keep the infected area clean and dry to prevent other infections from developing. Wear loose, comfortable clothing and avoid anything that rubs or binds such as tight jeans.
- Try to avoid touching the sores.
- Wash your hands after contact with the sores.
- Avoid sexual contact from the time you first feel any symptoms until the sores are completely healed, that is, new skin has formed where the sore was.
- Warm soaks in plain water can be comforting; if urinating is painful, urinating into the warm water can be helpful. Urine can also be diluted with a “peri-bottle” filled with warm water drizzled over the vulva with urination.
- The medications above can shorten outbreaks and lessen shedding of the herpes virus by 40-50%.

Can genital herpes cause any other problems?

Usually, genital herpes infections do not cause major problems in healthy adults. In some people whose immune systems do not work properly, genital herpes episodes can last a long time and be unusually severe. (The body’s immune system fights off foreign invaders such as viruses.)

If a woman has her first episode of genital herpes while she is pregnant, she can pass the virus to her unborn child and may deliver a premature baby. Half of the babies infected with herpes either die or suffer from damage to their nerves. A baby born with herpes can develop serious problems that may affect the brain, the skin, or the eyes. If babies born with herpes are treated immediately with acyclovir, their chances of being healthy are increased. Therefore, if you are pregnant and infected with genital herpes, you should stay in close touch with your doctor before, during, and after your baby is born.

If a pregnant woman has an outbreak and it is not the first one, her baby’s risk of being infected during delivery is very low. Acyclovir is often given during the last 4-6 weeks of pregnancy to prevent outbreaks that might occur during labor.

If a woman is having an outbreak during labor and delivery and there are herpes lesions in or near the birth canal, the doctor will do a cesarean section to protect the baby. Most women with genital herpes, however, do not have signs of active infection with the virus during this time, and can have a normal delivery.



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Is genital herpes worse in a person with AIDS?

Genital herpes, like other genital diseases that produce sores, increases a person's risk of getting HIV, the virus that causes AIDS. Also, prior to better treatments for AIDS, persons with HIV (because of lower protection from their immune systems) had severe herpes outbreaks, which may have helped them pass both genital herpes and HIV infections to others.

How can I protect myself or my sexual partner?

If you have early signs of a herpes outbreak or visible sores, you should not have sexual intercourse or oral sex until the signs are gone and/or the sores have healed completely. Between outbreaks, using condoms during sexual intercourse or staying on viral suppression may offer some protection from the virus.

Is any research going on?

The National Institute of Allergy and Infectious Diseases (NIAID) supports research on genital herpes and on herpes simplex virus, HSV-1 and HSV-2, the viruses that cause it. Studies are currently under way to develop better treatments for the 67 million people who suffer from genital herpes. While some scientists are carrying out clinical trials to determine the best way to use existing drugs, others are studying the biology of the herpes simplex virus. NIAID intramural scientists have identified certain genes and enzymes that the virus needs to survive. They are hopeful that drugs aimed at disrupting these viral targets might lead to the design of more effective therapies.

Meanwhile, other researchers are devising methods to control the virus' spread. Two important means of preventing HSV infection are vaccines and topical microbicides. Several different vaccines are in various stages of development. These include vaccines made from proteins on the HSV cell surface, peptides or chains of amino acids that present important targets to the immune system, and the DNA of the virus itself. Topical microbicides, preparations containing microbe-killing compounds, are also in various stages of development and testing. These include gels, creams, or lotions that a woman could insert into the vagina prior to intercourse to prevent infection in both herself and her partner.

How can I get help if I'm upset about having herpes or having an infected partner?

Genital herpes outbreaks can be distressing, inconvenient, and sometimes painful. Concern about transmitting the disease to others and disruption of sexual relations during outbreaks can affect personal relationships. If you or your partner has genital herpes, you can learn to cope with and treat the disease effectively by getting proper counseling and medicine, and by using preventive measures as mentioned above. Your local or state health department may be able to offer you counseling. In addition, if you have questions and concerns, you can call the American Social Health Association and the Health Advice Company hotlines:



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National Herpes Hotline - 919/361-8488

9 a.m. to 7 p.m. Eastern Time, Monday through Friday

Where can I get more written information?

Herpes Resource Center

American Social Health Association

P.O. Box 13827

Research Triangle Park, NC 27709-9940

800/230-6039

<http://www.ashastd.org>

The American College of Obstetricians and Gynecologists

409 12th Street, S.W.

P.O. Box 96920

Washington, DC 20090-6920

202/863-2518

<http://www.acog.org>

NIAID is a component of the National Institutes of Health (NIH). NIAID supports basic and applied research to prevent, diagnose, and treat infectious and immune-mediated illnesses, including HIV/AIDS and other sexually transmitted diseases, tuberculosis, malaria, autoimmune disorders, asthma and allergies. NIH is an agency of the U.S. Department of Health and Human Services.

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