

# Genital herpes

## Summary

Genital herpes is a sexually transmitted infection (STI) caused by the *herpes simplex virus* (HSV). It can affect the genitals, groin, pubic area, anus, rectum or buttocks.

Anyone who is sexually active can get genital herpes.

Many people with genital herpes have no symptoms or the symptoms are very mild, so it may go unnoticed or be mistaken for another condition. The most common symptoms of genital herpes are lesions, which appear as painful blisters and/or ulcers in the affected area.

To test for genital herpes, samples are taken from the sites of suspected infection and tested in a lab for the presence of HSV. Blood tests can also be used to determine if HSV is present in the body.

Once a person has HSV, the virus stays in the body for life. Symptoms can recur periodically.

Antiviral medications can reduce the severity and frequency of genital herpes outbreaks.

People with genital herpes infection may be at increased risk of getting HIV. However, evidence shows that people living with HIV who are on effective HIV treatment do not transmit HIV sexually, even when they or their partners have an STI.

Correct and consistent condom use and antiviral medication can reduce the risk of passing genital herpes on to someone else.

Key messages on genital herpes for clients are available at the end of this fact sheet.

## FACT SHEET

**Published  
2023**

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**The words we use here** – CATIE is committed to using language that is relevant to everyone. People use different terms to describe their genitals. This text uses medical terms, such as vagina and penis, to describe genitals. Cisgender<sup>i</sup> people can often identify with these terms. Some trans people<sup>ii</sup> may use other terms, such as front hole and strapless. CATIE acknowledges and respects that people use words that they are most comfortable with.

## What is genital herpes?

Genital herpes is a sexually transmitted infection caused by the herpes simplex virus (HSV). Genital herpes infections can affect the groin, pubic area, urethra (the tube that allows urine and semen to pass out of the body), vagina, vulva, cervix, clitoris, labia, penis, perineum (the area between the anus and the scrotum or vagina), anus, rectum or buttocks. HSV can also cause infections of the mouth and lips (“cold sores”) and infections of the eyes (called conjunctivitis or “pink eye”).

The most common symptoms of genital herpes are lesions, which appear as painful blisters and/or ulcers in the affected area.

HSV infects the epithelial cells (top layers) of the skin and the mucous membranes (the “wet” linings of the body). The virus then travels to a nerve root called a ganglion at the base of the spine. HSV stays in the ganglion for the rest of a person’s life even when they are not experiencing symptoms. Periodically, the virus may travel back to the skin or mucous membranes. This may or may not cause symptoms.<sup>1–4</sup>

## How is genital herpes transmitted?

HSV is passed on when a person comes into contact with the lesions, mucosal surfaces, genital fluids or saliva of a person with HSV. This can occur when the partner with HSV has no visible lesions or is unaware they have HSV.

There are two main types of HSV: HSV-1 and HSV-2.

HSV-1 is most commonly acquired through non-sexual contact (including kissing) during childhood. HSV-1 causes most cases of HSV infections of the mouth and eyes. However, HSV-1 can also be

passed from the mouth to the genitals or anus during oral sex and via genital-to-genital contact and anal intercourse.

HSV-2 is most commonly transmitted through vaginal and anal sex. HSV-2 can also be transmitted through oral sex.

Condomless vaginal and anal sex, and oral sex without a condom or oral dam are considered high risk for passing HSV. Although lower risk, fingering, hand jobs and sharing of sex toys can also transmit HSV.

HSV can be passed from a pregnant parent with genital herpes to a fetus or newborn during pregnancy or childbirth.<sup>1,3,5–7</sup>

## Who is at risk?

Anyone who is sexually active, including people who experience sexual violence, are at risk for genital herpes.

Some activities, more than others, increase the chances of a person getting genital herpes or passing it on to someone else:

- condomless sex with a person who has genital herpes
- condomless sex with multiple, or anonymous, partners

Some groups carry a higher burden of genital herpes (it is more common). These include:

- people who have, or have had, another sexually transmitted or blood-borne infection (STBBI)
- older people (because they have had more time to acquire the virus)

Newborns born to a pregnant person with genital herpes are at risk of acquiring an HSV infection. The risk of a newborn acquiring HSV is higher when the pregnant person has an untreated infection during the second half of pregnancy.<sup>1,8–10</sup>

## Symptoms

Many people with genital herpes have no symptoms or the symptoms are very mild, so they

go unnoticed or are mistaken for another condition. Genital herpes can be passed on even when the partner with HSV has no symptoms. If symptoms do occur, they usually appear two to 12 days after infection (the incubation period). The first appearance of symptoms is known as the *primary outbreak*. Subsequent outbreaks are known as recurrences.

Symptoms of HSV can include:

- painful blisters on or around the genitals, anus, mouth, throat or eyes. These blisters can appear individually or in clusters, and typically crust over and heal within one to two weeks
- itchy, tingling, burning or painful skin in affected areas
- pain in the legs or buttocks
- swollen and tender lymph nodes in the groin area
- thin watery discharge from the vagina
- fever, headache or muscle ache
- fatigue

For people with genital herpes who do have noticeable lesions, the primary outbreak is usually the most severe. For many people, subsequent outbreaks also become less frequent over time. Some people with genital herpes never have a recurrence after the primary outbreak.

For genital herpes caused by HSV-1, recurrences are less frequent than for infections caused by HSV-2. Recurrent outbreaks are often preceded by tingling, burning or itching in the affected area up to several days before the lesions appear. Genital herpes lesions may be more painful and persistent in people with suppressed immune systems. A number of factors, including stress, illness, menstruation or injury to the site of the original infection, may trigger an outbreak.<sup>1-3,5</sup>

## Complications

In addition to the common symptoms of genital herpes, HSV can cause rare but serious complications such as encephalitis (inflammation of the brain), meningitis (inflammation of the

membranes lining the brain and spinal cord), myelitis (inflammation of the spinal cord), and blindness. HSV infections can also become systemic, affecting multiple locations in the body, and various organ systems.

Neonatal herpes resulting from HSV transmission to the fetus or newborn during pregnancy or childbirth can result in very serious complications, including death. All pregnant people should talk to their healthcare provider about HSV.

For many people with genital herpes, the most serious complications are psychological. Many people feel embarrassment, shame and stigma after a medical diagnosis of genital herpes and are concerned about the implications for current and future sexual relationships.<sup>1-3,5</sup>

## Testing and diagnosis

There are three main tests for HSV in symptomatic individuals: NAATs (Nucleic Acid Amplification Tests), viral cultures and Type-Specific Serology (TSS).

For NAATs and viral cultures, a swab is taken from a lesion, blister, or the skin surface, and sent to a lab for testing.

NAATs are highly accurate for testing sites of suspected HSV infection, and are thus the preferred option for confirming diagnosis. However, NAAT tests for HSV may not be as widely available as viral culture tests. NAATs are recommended when it is suspected that viral culture has failed to detect an actual HSV infection. NAATs are also recommended when systemic infection or neonatal infection are suspected.

Viral cultures are less accurate than NAATs, particularly on lesions that have started healing. However, they are widely available and easy to administer. Viral cultures can also be used to identify HSV sub-types (HSV-1 or HSV-2), and to test for antiviral resistance. Viral culture tests are more likely to detect the virus if the swab is taken soon after symptoms appear.

TSS is a blood test that can determine if a person has HSV-1 or HSV-2. This can be useful when symptoms of HSV are present but other tests show a negative result, and to identify the need for

preventive measures in sero-different couples (one has HSV-1; the other has HSV-2). TSS is also useful for testing whether a pregnant person experiencing their first outbreak of genital herpes acquired the infection during the second half of pregnancy. This is important because the risk of passing it on to the newborn is greater in pregnant people who acquired their first infection at this stage. Because it is a blood test, TSS cannot determine where in the body a person has HSV. HSV blood tests are not covered by provincial or territorial health insurance plans. Availability of these tests also varies across Canada.

The Public Health Agency of Canada (PHAC) does not recommend routine screening for patients without a history of HSV lesions.

PHAC recommends that anyone being screened or treated for HSV infection also be screened for syphilis, gonorrhea, chlamydia and HIV at the same time. They should also be offered vaccination for hepatitis B, hepatitis A, and human papillomavirus (HPV).<sup>5,11,12</sup>

## Notification of partners

PHAC recommends that people with genital herpes be encouraged to inform their sex partners, so that the partners can consult their healthcare providers for testing, diagnosis and treatment.

HSV is not a nationally notifiable disease in Canada. This means that new cases are not reported to the federal government for national public health surveillance.

However, in some provinces and territories, genital and neonatal herpes infections are reported to provincial/territorial governments for provincial/territorial surveillance.<sup>1</sup>

## Treatment

HSV cannot be eliminated from the body. However, treatments can speed up healing during outbreaks, prevent complications, improve quality of life and reduce the risk of passing HSV to another person. PHAC recommends that treatment for a first outbreak be started as soon as possible after symptoms appear. Antiviral medications include

oral valacyclovir (sold as Valtrex and in generic formulations), acyclovir and famciclovir. These medications are usually taken for five to 10 days.

These same medications can be used to treat recurrent episodes and to reduce the severity and duration of symptoms. PHAC recommends that treatments be started as soon as symptoms appear. People who have frequent recurrences (several outbreaks a year) can be prescribed suppressive therapy, where antiviral medications are taken on a daily basis. This can reduce the frequency and severity of outbreaks and reduce the risk of transmission to partners.

PHAC recommends that pregnant people experiencing HSV outbreaks be treated with oral or intravenous acyclovir. Suppressive therapy using acyclovir or valacyclovir may be used with pregnant people with a history of HSV. This may prevent outbreaks or reduce their severity, which then reduces the risk of transmitting HSV to an infant during pregnancy or childbirth. Suppressive therapy is recommended at 36 weeks of pregnancy for any person with a history of HSV-2 infection or a recurrence of symptoms within the past year.

Treatment of complicated or systemic infections sometimes requires hospitalization and intravenous acyclovir treatment. PHAC recommends that an infectious disease specialist or other experienced healthcare provider manage treatment or provide consultation.

PHAC recommends that infants exposed to HSV during childbirth be hospitalized, treated with intravenous acyclovir immediately, and monitored closely. PHAC recommends that a pediatric infectious disease specialist or other experienced healthcare provider manage treatment or provide consultation.

People experiencing an episode of genital herpes may reduce discomfort by taking acetaminophen or ibuprofen, applying ice packs to the lesions, taking warm baths with salt or baking soda, and wearing loose-fitting clothing and cotton underwear.

Psychosexual counselling is an important aspect of the treatment and management process for genital herpes. Many people experience feelings of loneliness, fear of rejection, depression, low

self-esteem and anxiety upon learning that they have genital herpes. Once diagnosed with a genital herpes infection, a person should be educated about how it progresses, how it can be treated and how to avoid passing it on to others. People with genital herpes should also be counselled about communication with past, current and potential sexual partners.<sup>1-3,13,14</sup>

## What about HIV?

People with genital herpes may be at increased risk of getting HIV. The association between HSV infection and increased risk for HIV is maintained even when there are no HSV symptoms.

People living with HIV who also have genital herpes may pass HIV more easily to a partner during sexual activity. However, evidence shows that people living with HIV who are on effective HIV treatment do not transmit HIV sexually, even when they or their partners have an STI.<sup>3,15-19</sup>

## Prevention

People with genital herpes should avoid sexual contact when they are experiencing outbreaks or symptoms, because this is when they are at highest risk for transmitting HSV to sex partners. However, people with HSV can still pass the virus on when they are not experiencing outbreaks or symptoms.

Individuals with lesions on their mouth or lips should avoid kissing.

Correct and consistent condom use reduces but does not eliminate the risk of passing genital herpes. There are two types of condoms available. The external condom (sometimes called the “male” condom) is a sheath made from polyurethane, latex or polyisoprene that covers the penis during sex. The internal condom (sometimes called the insertive or “female” condom) is a pouch made of polyurethane or a synthetic latex material called nitrile that can be inserted into the vagina or rectum. Condoms only provide protection against genital herpes when they cover infected skin areas. Because internal condoms may cover more infected skin areas, they may provide more protection.

Some trans men may cut a condom or oral dam to fit their genitals.

The use of oral dams or other barriers can reduce the risk of HSV transmission during oral sex or rimming.

When sharing sex toys, using a new condom and washing the toy between every use can reduce the risk of HSV transmission.

For people with genital herpes, suppressive therapy using oral valacyclovir can reduce the risk of passing HSV-2.

For pregnant people with a history of genital herpes, anti-viral medications can prevent outbreaks or reduce symptoms, thus reducing the risk of transmission to the child. Treatment is particularly important for pregnant people experiencing their first outbreak of genital herpes. PHAC recommends that delivery by caesarian section (c-section) be *considered* if the first outbreak occurs during the third trimester (last three months) of a person’s pregnancy.

Using HIV PrEP (pre-exposure prophylaxis) does not prevent the transmission of genital herpes or HSV.<sup>1-3,6</sup>

## Notes

i Cisgender – someone whose gender identity aligns with the sex they were assigned at birth

ii Transgender – an umbrella term that describes people with diverse gender identities and gender expressions that do not conform to stereotypical ideas about what it means to be a girl/woman or boy/man in society

(Definitions taken from *Creating Authentic Spaces: A gender identity and gender expression toolkit to support the implementation of institutional and social change*, published by The 519, Toronto, Ontario.)

## Resources

Condoms for the prevention of HIV – *fact sheet*

Safer Sex Guide – *client resource*

Oral Sex – *client resource*

Viral STI Basics – *fact sheet*

Sexually Transmitted Infections – *booklet* (Public Health Agency of Canada)

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**This fact sheet was developed in partnership with the Sex Information and Education Council of Canada (SIECCAN).**

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# What you need to know about genital herpes

Genital herpes is a sexually transmitted infection (STI) caused by the herpes simplex virus (HSV). Genital herpes is most easily passed on by contact with infected skin during sex. Treatment can reduce outbreaks and symptoms and may reduce the chances of passing genital herpes to sex partners, but the virus cannot be eliminated from the body. There are ways to lower the chance of getting or passing on genital herpes, such as the correct and consistent use of condoms during sex.

**The words we use here** – CATIE is committed to using language that is relevant to everyone. People use different terms to describe their bodies. This text uses medical terms, such as vagina and penis, to describe genitals. Some people may use other terms, such as private parts or dick or front hole. CATIE acknowledges and respects that people use words that they are most comfortable with.

## What is genital herpes?

Genital herpes is a sexually transmitted infection (STI) caused by the herpes simplex virus (HSV). HSV infection can cause blisters on, around or in the genitals, anus, rectum, mouth or eyes. A person with genital herpes can pass it on to another person during sex. A pregnant person can pass it on to an infant during pregnancy or childbirth.

Many people with genital herpes have no symptoms or they mistake the symptoms for another condition, so they don't know they have an infection. When symptoms do occur, they can take up to two to 12 days after getting the virus to appear.

Common symptoms of genital herpes can include:

- blisters (lesions), individually or in clusters, anywhere in the area of the genitals or anus
- itchy, tingly, burning or painful skin in affected areas
- pain in the legs or buttocks
- swollen lymph nodes in the groin

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Published  
2023

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- watery discharge from the vagina
- fever, headache, muscle ache
- fatigue

## Am I at risk of getting genital herpes?

Anyone who is sexually active, including people who experience sexual violence, can get genital herpes.

A person with genital herpes can pass it on even if they have no symptoms.

Genital herpes is easily passed on during sex without a condom; this includes vaginal and anal intercourse.

Genital herpes can also be passed on:

- when a person with the herpes virus in their mouth or throat gives oral sex to another person
- when a person gives oral sex to a person who has herpes virus on their genitals
- through oral-anal contact (rimming)
- through sharing sex toys or during a hand job or fingering if fluids containing the virus get onto the toy or hand
- from a pregnant person to a fetus or newborn during pregnancy or childbirth

## Genital herpes and HIV

For people with HIV, genital herpes may increase the amount of HIV in bodily fluids and increase the chance of passing on HIV to sex partners.

Someone who has genital herpes may be more likely to get HIV if they are exposed to HIV during sex.

However, evidence shows that people living with HIV who are on effective HIV treatment do not transmit HIV sexually, even when they or their partners have an STI.

## What can I do?

### Reduce your chances of getting genital herpes

Avoid sexual contact if you are experiencing symptoms (such as blisters or tingling or burning in the skin).

Also avoid wet kissing if you have sores on your mouth or lips ("cold sore").

Use a condom during vaginal and anal intercourse. Condoms are only effective if the area with herpes on it is covered by the condom.

Use a condom or oral dam during oral sex.

When sharing a sex toy, wash the sex toy and put a new condom on it between each use.

People with genital herpes can talk to a healthcare provider about treatments that reduce the frequency of outbreaks and may reduce the chances of passing genital herpes to sex partners.

There is no vaccine to protect against genital herpes or HSV.

### Get tested

The only way to know if you have genital herpes is to get tested. You should get tested if you experience symptoms of genital herpes, or if you have a current or recent sex partner diagnosed with genital herpes.

Consider getting tested if you:

- have condomless sex with multiple, or anonymous, partners
- have had another sexually transmitted or blood-borne infection (STBBI)
- are pregnant or are planning to become pregnant

A healthcare provider can do the test. The test involves taking a swab of the fluids from a herpes lesion (blister or ulcer). Blood tests can also determine if someone has a herpes infection, but blood tests are not able to determine the location of an infection.

It is a good idea to get tested for other sexually transmitted infections (STIs), including HIV, when you get tested for genital herpes. Other STIs can be passed on in the same way as genital herpes. Talk to your healthcare provider about how often you should get tested for genital herpes and other STIs.

## Get treated

If you have a genital herpes infection, antiviral medications can help to prevent outbreaks, reduce symptoms during an outbreak and reduce the chances of passing genital herpes to a partner. For these medicines to work, it is important that you take them exactly as directed by your healthcare provider.

During an outbreak, some people take over-the-counter pain medication, apply ice packs to the lesions, take warm baths with salt or baking soda and wear loose-fitting cotton underwear to help reduce pain or irritation.

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