

Snohomish Midwives  
57 Cedar Avenue  
Snohomish, WA 98290  
877-869-6105  
Fax: 360-563-2662

## **Herpes Simplex Virus (HSV)**

Genital herpes is a sexually transmitted infection (STI) that can cause serious health problems in infected newborns. Approximately 45 million Americans have genital herpes (1). Up to 1 million new cases occur each year (2), including about 1,200 to 1,500 in newborns (3).

While most women with genital herpes have healthy babies, a small number pass the virus on to their babies during labor and delivery. For this reason, it is especially important for pregnant women to recognize the symptoms of genital herpes and to seek immediate medical treatment if they think they could be infected.

### **What causes genital herpes?**

Herpes is caused by herpes simplex viruses (HSVs), which are similar to the viruses that cause chickenpox and shingles. After the initial infection, HSVs can hide within nerve cells, where the body's immune system cannot reach them. Then, under the right conditions, the viruses can launch new attacks.

There are two main kinds of HSVs:

- **HSV-1**, which usually causes cold sores around the mouth and lips
- **HSV-2**, which usually causes genital sores.

However, either type can infect oral or genital areas, and pregnant women with genital sores caused by either form of HSV can pass the infection on to their babies.

Environmental influences—such as heat, friction, sexual intercourse, menstruation, fever or emotional stress—may trigger a new outbreak of sores. The average infected person experiences four or five recurrences a year. The outbreaks tend to become less frequent and less severe with time.

### **How is herpes transmitted?**

Herpes infections are transmitted by direct contact with an infected person. A person can become infected with genital herpes during:

- Sexual intercourse
- Oral-to-genital contact with an infected person

An infected person can spread the virus from one part of the body to another with unwashed hands. For example, persons who have cold sores always should wash their hands thoroughly after any contact with saliva before touching the genital area.

Children often become infected with HSV-1 during the first years of life. This may occur when a child has direct contact with:

- **Herpes sores** (for example, being kissed by a person with a cold sore)
- **Virus-containing saliva** (for example, touching their lips with their fingers after contact with infected saliva)

### **What are the symptoms of genital herpes?**

Shortly after a person contracts herpes, clusters of small blisters may appear in the genital area. These blisters itch and become painful. Then they break, leaving painful ulcers. Fever, fatigue, aches and pains, and a urethral or vaginal discharge often occur.

Health care providers diagnose herpes by:

- Examining the sores
- Doing a swab of the blisters, then ordering lab tests

The lab tests may be a culture or, sometimes, a newer test called polymerase chain reaction (PCR). The provider also may do a blood test to help confirm the diagnosis.

The first, or primary, attack may last as long as 2 to 4 weeks. Recurrent outbreaks generally are shorter and milder.

Most herpes infections, both primary and recurrent, do not produce any symptoms. These symptomless (sometimes called silent) infections generally go undiagnosed. As a result, about 90 percent of people who are infected with genital herpes do not know they have it (3). However, individuals with symptomless infections can pass the virus on to others, including a newborn baby.

### **What risks does herpes pose during pregnancy?**

About 1 in 4 pregnant women is infected with genital herpes, although most do not know it (3). Fortunately, only a small number pass the infection on to their babies.

Women who acquire genital herpes for the first time near the time of delivery have a 30 to 50 percent chance of passing the infection on to their babies during a vaginal delivery, whether or not they have symptoms (4). The risk is so high because a newly infected pregnant woman has not yet produced disease-fighting antibodies that could help protect her baby during delivery. Studies suggest that about 2 percent of pregnant women acquire herpes for the first time during pregnancy (3).

Women who have had herpes before pregnancy and have a flare-up or silent infection at the time of vaginal delivery have only about a 3 percent chance of infecting their babies (3). Sometimes, what appears to be a first, severe episode of herpes during pregnancy actually can be a flare-up of an old silent infection. These women have a low risk of infecting their babies. Blood tests sometimes can help determine whether a woman has a new infection or a recurrence of an old one.

### **How can the baby be protected from infection if the mother has herpes?**

If a pregnant woman has a history of genital herpes, her health care provider examines her carefully for any signs of infection when she goes into labor. When a woman has an active infection (primary or recurrent) at the time of delivery, her baby usually can be protected from infection by a cesarean delivery (3, 5). A vaginal delivery is safe for most women with recurrent herpes as long as they don't have signs of infection at delivery.

Some providers recommend that women with a primary infection during pregnancy or with recurrent flare-ups take acyclovir for the last month of pregnancy. Some studies suggest that this

treatment may help prevent active infections during labor and delivery and help reduce the need for cesarean delivery (3, 5).

However, most mothers of infants with newborn herpes infections have no signs or symptoms of active herpes infection at delivery (3). Providers have not yet developed a good way to protect babies when their mothers have silent infections at delivery.

### **Prevention of Outbreaks**

1. Decrease your stress levels
2. Avoid sun exposure
3. Take supplemental L-lysine capsules: 500mg, once a day ( 4-6/day during outbreaks) and eat L-lysine-rich foods which include most vegetables, legumes, fish, turkey, chicken, and seaweed.
4. Include small amounts of citrus in your diet
5. Take antiviral herbs (see antiviral tea below)
6. Avoid arganine-rich foods (chocolate, peanuts and peanut butter, sugar, cakes and sweets, alcohol, coffee, tea, nuts (almonds, Brazil nuts, cashews, filberts, pecans, walnuts), seed meal (tahini, sesame butter), sunflower seeds, coconut, and bleached white flour foods.
7. Also emphasize dairy products, organ meats, potatoes, and Brewers yeast in your diet.
8. Foods to be eaten with discretion when herpes is inactive yet avoided during active herpes include: whole grain products (cereals, bread, pasta, lentils, barley and other grains), oats, corn, rice, peas, beans, sprouts, chick peas, carob, foods containing seeds (eggplant, tomato, squash), and fruits and berries which contain seeds.
9. Take prophylactic Acyclovir (antiviral medication that helps to suppress an outbreak and asymptomatic viral shedding) at 36 weeks until delivery. It is a Class B medication, meaning animal studies have been OK but it has never been tested in 1<sup>st</sup> trimester pregnant women. It has been widely used for the last 15 years in the last 2 trimesters of pregnancy and is not linked to any problems in the newborn.

### **Practice Guidelines**

1. If you have a primary herpes infection in pregnancy, I would need to consult with an Ob and depending on when it was contracted would determine whether or not I would still be able to care for you. Out of hospital birth may be appropriate if the outbreak occurs in the first two trimesters and if the baby appears to be developing normally.
2. If you have a secondary herpes infection and have an outbreak at the time of birth or within 10 days prior to the time of birth, I would not be able to attend your birth. It is recommended that you have a C-section if the outbreak occurs near your genital area.
3. If you have a secondary herpes infection and want to reduce your chances of having an outbreak near the time of birth you can take the steps mentioned above in “Prevention of Outbreaks”.

## Antiviral Tea

Hypericum perforatum (St. Johnswort)	4 parts
Calendula officinalis (Calendula)	2
Turnera diffusa (Damiana)	1
Echinacea spp. (Echinacea)	2
Eleutherococcus senticosus (Siberian Ginseng)	1
Smilax ornate (Sarsparilla)	1

Combine and use 1oz of this mixture in 2 pints of boiling water; steep for 15-20 minutes; strain and drink one large glass 3 x day; for a minimum of 10 days. This can be continued safely for 1-3 months as needed, before consultation with an herbalist is advised.

If anxiety and episodes of stress worsen, add:

Scutellaria laterifolia (Scullcap)	1 part
Humulus lupulus (Hops)	½

## References

1. *Centers for Disease Control and Prevention (CDC). Genital Herpes Fact Sheet. Updated 1/4/08.*
2. *Gardella, C., and Brown, Z.A. Serologic Testing for Herpes Simplex Virus. Contemporary Ob/Gyn, October 2007, pages 54-58.*
3. *American College of Obstetricians and Gynecologists (ACOG). Management of Herpes in Pregnancy. ACOG Practice Bulletin, number 82, June 2007.*
4. *Centers for Disease Control and Prevention (CDC). Sexually Transmitted Diseases Treatment Guidelines 2006. Morbidity and Mortality Weekly Report, volume 55, RR-11, August 4, 2006.*
5. *Brown, Z.A., et al. Genital Herpes Complicating Pregnancy. Obstetrics and Gynecology, volume 106, number 4, October 2005, pages 845-856.*