Genital Herpes

WHAT IS GENITAL HERPES?
Genital herpes is an infection caused by either the Type 1 (HSV-1) or Type 2 (HSV-2) herpes simplex virus. The two viruses are closely related. While either may be found at various body sites, HSV-1 generally causes infections on the lip, mouth or facial areas, and HSV-2 is usually found in the genital area. Herpes simplex is part of a larger family of herpes viruses, which includes those that cause chickenpox and mononucleosis, among others.

HOW COMMON IS GENITAL HERPES?
It is estimated that 50-80% of American adults have HSV-1. Approximately 45 million Americans over the age of 12 (about one in five) have HSV-2 herpes simplex virus. Genital herpes is more common in females, African-Americans, and persons who use cocaine. Most (90% in one study) of these people have positive blood tests for HSV with no history of symptoms or outbreaks. The majority of persons infected with HSV-2 have not been diagnosed with genital herpes. Many such persons have mild or unrecognized infections but shed virus intermittently in the genital tract. The majority of genital herpes infections are transmitted by persons unaware that they have the infection or who are asymptomatic when transmission occurs.

WHAT HAPPENS WHEN SOMEONE IS INFECTED WITH GENITAL HERPES?
Many people who have this virus are not aware of the infection. However, if symptoms occur during the primary outbreak, they can be quite pronounced. The primary episode usually occurs 2-14 days after exposure to an infected person. Flu-like symptoms, including fever, headache, swollen glands and single or clustered painful blisters, erupt from the infected site. The blister opens to form an ulcer or lesion. The primary outbreak usually lasts longer and causes more discomfort than subsequent outbreaks. Blisters usually heal within 14-28 days. Some people never have another outbreak while others have them frequently. After the initial outbreak, the virus moves away from the skin surface and travels along the nerve pathways to nerve roots at the base of the spine. Once there, it goes into an inactive phase. The virus may reactivate if the immune system is suppressed/challenged, such as with illness and stress. Lesions reappear at the same site as the original infection, but usually are much less severe. If the infection is caused by HSV-1, the (first year) recurrence rate is 50% (average of 0.7 recurrences/year). The HSV-2 (first year) recurrence rate is 80-90%. In addition, the infection increases the risk of contracting other STI's, including HIV.

HOW IS GENITAL HERPES TRANSMITTED?
The herpes virus is transmitted when a person makes direct contact with a lesion or secretions of an infected person, although an infected person may transmit the virus even if no lesions are present. The virus enters the body through the skin or mucous membranes of the genital area. Transmission occurs primarily through vaginal, anal and oral-genital sexual contact. The herpes virus is quite fragile and cannot survive long outside the body. Transmission through inanimate objects such as toilet seats, towels, etc. is unlikely. However, precautions include not sharing towels, underwear, or other objects that come into contact with genital lesions. Latex condoms or latex squares significantly reduce the risk of transmitting the virus, but lesions may be in areas not covered by the barriers.

A person is considered most infectious during the prodromal phase right before the outbreak of the lesions and throughout the time until the lesions are completely healed. The prodromal phase is often marked by itching, tingling or burning at the site of the imminent outbreak. The infected person is generally contagious during the prodrome and when lesions are present. Patients with genital herpes can shed virus between outbreaks as well. This asymptomatic shedding occurs on 8-30% of all days, and on 42% of days in the first six months after infection. During times of asymptomatic shedding of the virus, an individual is capable of unknowingly passing the virus to others.

It is possible to transfer the virus from the original site to another part of the body. For example, touching a lesion with your fingers then rubbing your eyes could spread the virus to your eyes.

HOW IS GENITAL HERPES DIAGNOSED?
Herpes can be diagnosed by examination and visual inspection of the lesions if the outbreak is typical (multiple painful genital blisters or ulcers, but the clinical diagnosis should be confirmed by laboratory testing.
There are three main laboratory methods to diagnose the virus: culture, PCR, and blood tests for antibodies, although false negative results are possible. Genital herpes may be difficult to detect between outbreaks.

It is difficult to diagnose genital herpes by examination alone. Many infected persons do not have classic lesions (painful blisters and ulcers). Further, it is impossible to tell whether a lesion is caused by HSV-1 or HSV-2 by inspection. Since recurrences and subclinical/asymptomatic shedding are much less frequent for HSV-1 than for HSV-2, it is important to determine the type of HSV infection.

A swab of an open lesion is needed for culture or PCR. Typing of HSV-1 or HSV-2 may be done with culture or PCR. The specimen must contain active herpes virus or it will produce a false negative test result (approximately 76% for culture); therefore the swab must be obtained while the lesion is in the early stage of development. PCR tests have a lower false-negative rate, but are not FDA-cleared for testing genital specimens. Therefore, cultures are used at McKinley.

When a person is exposed to a virus, the body responds by developing antibodies against it. These antibodies remain in the body and help lessen or prevent the severity of recurrences. A blood test checks for these antibodies to the virus, not the virus itself. Depending on the person and the type of test, it can take from 3-4 weeks to four months after exposure to HSV for antibodies to be detected in the blood. Since many adults have antibodies to HSV-1, testing for this antibody may not be helpful in establishing a diagnosis. A positive blood test for HSV-2 antibody usually reflects past infection of the anogenital area, although antibody tests cannot identify the site(s) of the infection(s). Blood tests for HSV-2 antibody can be helpful to the clinician when a patient has an ulcer on the genitals and the culture test is negative. Blood tests for HSV-2 antibody are not recommended as a general STI screen in low risk populations. Depending on type, blood tests for HSV-1 antibody detect 90-100% of cases; tests for HSV-2 detect 96-100% of cases.

HOW IS GENITAL HERPES TREATED?

- Currently there is no cure for the herpes virus. Treatment can provide some relief of the symptoms and speed healing.
- Keep the area clean and dry.
- Use cotton underwear and loose fitting clothing.
- Warm baths with Epsom salts or Domboro solution, both drying agents, may relieve discomfort and help dry the lesions.
- Avoid antibacterial creams or ointments because they hold in too much moisture and delay healing.
- Avoid scratching or picking at the lesions. This can spread the blisters or make the outbreak worse. Use good hand washing techniques.
- Antiviral medications can slow the replication of the virus and speed the healing. These prescription drugs are started as soon as the symptoms of an outbreak are felt. For frequent outbreaks, suppressive or continuous therapy can reduce recurrences. A healthy lifestyle will help keep the immune system healthy to prevent recurrences. Balanced rest, exercise, and nutrition, avoiding excess alcohol and smoking, and managing stress will reduce outbreaks.
- Give yourself time. Being diagnosed with genital herpes requires adjustments.

HOW CAN RISK OF TRANSMISSION TO A NEW PARTNER BE REDUCED?

- Do not have sexual contact when you or your partner(s) have any symptoms or outbreak of genital or oral herpes, including prodromal symptoms.
- Use a condom made of latex or polyurethane whenever you have sexual contact. But be advised: condoms may not cover all sites of viral shedding, so they do not provide 100% protection.
- Use a condom or latex barrier when receiving/performing oral/genital or oral/anal sex. Abstain from any oral sexual contact if there are any mouth or lip sores present.
- When entering a new relationship after a recent initial attack of HSV-2, continuous antiviral medication may reduce asymptomatic shedding of virus in between attacks and decrease the risk of spread to a susceptible partner by 50%.

WHAT ABOUT PREGNANCY AND HERPES?

If you are pregnant or contemplating pregnancy, and have genital herpes, inform your prenatal care provider as soon as possible. If you do not have herpes, continue precautions to avoid acquiring infection.
HOW CAN I TALK TO MY PARTNER ABOUT HERPES?
Before you approach your partner, deal with your own emotions. You may feel angry, embarrassed, or guilty. You may also feel depressed, have a fear of rejection by your partner, or concern about spreading the infection to others. A positive attitude will help you cope with herpes and trying to protect your partner reflects your personal integrity. Learn as much as you can about herpes so you will be prepared to answer their questions.

POINTS TO REMEMBER
- Try to emphasize the positive fact that you are being honest, even though it is hard. Let your partner know you are telling the truth because you care. Invite them to be honest, too.
- Be prepared for the possibility of rejection at first.
- Remember that your partner will feel as emotional and confused as you did when you were first diagnosed. Expect a lot of questions.
- Explain that medical treatment is available, and that safer sex reduces the risk of passing the infection.

References and Resources
Centers for Disease Control and Prevention, 2006. Guidelines for the Treatment of Sexually Transmitted Diseases.
Abstract 274: “Condoms Protect Men and Women against Herpes Simplex Virus Type 2 (9HSV-2) Acquisition”
STI Hotline (800) 227-8922
National Herpes Hotline (919) 361-8488

Web sites
Centers for Disease Control Web site, www.cdc.gov, search for genital herpes

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: Dial-A-Nurse at 333-2700

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: http://www.mckinley.illinois.edu