

DOWNLOAD PDF HERPES SIMPLEX VIRUSES (INFECTIOUS DISEASE AND THERAPY)

Chapter 1 : Herpes simplex virus

Herpes simplex viruses (human herpesviruses types 1 and 2) commonly cause recurrent infection affecting the skin, mouth, lips, eyes, and genitals. Common severe infections include encephalitis, meningitis, neonatal herpes, and, in immunocompromised patients, disseminated infection.

Who gets and causes Who gets herpes simplex? Most people get HSV-1 herpes simplex type 1 as an infant or child. This virus can be spread by skin-to-skin contact with an adult who carries the virus. An adult does not have to have sores to spread the virus. A person usually gets HSV-2 herpes simplex type 2 through sexual contact. Some people are more likely to get HSV Have had many sex partners. Had sex for the first time at a young age. Have or had another sexually transmitted infection. Have a weakened immune system due to a disease or medicine. What causes herpes simplex? Herpes simplex viruses spread from person to person through close contact. You can get a herpes simplex virus from touching a herpes sore. Most people, however, get herpes simplex from an infected person who does not have sores. Sharing objects such as silverware, lip balm, or a razor. Most people get genital herpes from HSV-2, which they get during sex. If someone has a cold sore and performs oral sex, this can spread HSV-1 to the genitals and cause herpes sores on the genitals. Mothers can give the herpes virus to their baby during childbirth. Once a person becomes infected with a herpes virus, the virus never leaves the body. After the first outbreak, the virus moves from the skin cells to nerve cells. The virus stays in the nerve cells forever. But it usually just stays there. In this stage, the virus is said to be dormant, or asleep. But it can become active again. Some things that can trigger wake up the virus are:

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Chapter 2 : Type 1 Herpes Simplex Infection in Children - Cancer Therapy Advisor

Herpes simplex viruses -- more commonly known as herpes-- are categorized into two types: herpes type 1 (HSV-1, or oral herpes) and herpes type 2 (HSV-2, or genital herpes).

Similarly, neonatal herpes is treated with intravenous acyclovir. Treatment of oropharyngeal and episodic genital HSV infections is now short course either one day famciclovir or three days valacyclovir , but treatment must be initiated in the early stages of infection - during the prodrome - for healing to be accelerated. For herpes simplex encephalitis, treatment must be administered intravenously. No benefit from long-term suppressive therapy with an oral antiviral drug has been established. On the other hand, following intravenous therapy of neonatal herpes, long-term suppressive therapy with acyclovir provides neurologic benefit. Other key therapeutic modalities. Some physicians recommend the use of topical corticosteroids with an oral antiviral drug; however, that is not the standard of care. For herpes encephalitis, increased intracranial pressure and seizures must be considered on serial re-evaluation of the patient. Complications of herpes labialis are trivial and only consist of neuritic pain. Complications of primary genital herpes is aseptic meningitis, but this is rare. However, the complications of herpes simplex encephalitis and neonatal herpes include neurologic impairment and a persistent seizure disorder. Prognosis is relevant for herpes simplex encephalitis and neonatal herpes. Overall, only one in three patients returns to normal function. For neonatal herpes, if the disease is localized to the skin, the prognosis is excellent. If the initial cerebral spinal fluid CSF PCR is negative but the patient appears to have all the classic findings of herpes encephalitis, continue to treat and repeat the PCR a few days later. How do you contract this disease and how frequent is this disease? Herpes simplex encephalitis occurs in approximately 1: There is no seasonal variation. Virus is spread by mucosa to mucosa contact. Utilizing type-specific serology, the seroprevalence of herpes simplex type 1 increases with age and occurs later in life in developed societies. In the developing world, by 10 years of age, most children have antibodies to this virus. What pathogens are responsible for this disease? There is only one etiology for oropharyngeal and brain infection, and that is HSV. How does this pathogen cause disease? The pathogenesis of HSV infections varies according to resultant disease. When involving the oropharynx or genital tract, this virus is spread by mucosal contact of a susceptible individual with another individual who is shedding the virus. Virus enters the host at mucosal surfaces and is transmitted to the sensory ganglia, where it replicates and is transmitted back down the axon to mucosal surfaces where it causes vesiculoulcerative lesions. With lesions of the vermilion border of the lip, vesicles evolve to pustules and ulcers followed by scabbing. The inflammatory response consists of polymorphonuclear leukocytes PMNs , lymphocytes and macrophages. The pathogenesis of herpes simplex encephalitis is less clear. Most adults are seropositive at the time of encephalitis. Whether the virus reactivates directly in the brain or is transported by either the olfactory or trigeminal nerves is unknown. Virus replication in the brain causes hemorrhagic necrosis. Microscopic evaluation reveals perivascular lymphocytic cuffing. Some cells may demonstrate Cowdry Type A intranuclear inclusions. Brain tissue may stain positive for herpes simplex antigens with appropriate antibodies. Neonatal herpes is usually acquired by contact of the fetus with infected secretions intrapartum. A few babies acquire disease from invasive obstetrical procedures, e. A few babies acquire infection postnatally by direct contact with an individual excreting virus. Diagnosis of the newborn requires a high degree of suspicion. What other clinical manifestations may help me to diagnose and manage herpes simplex infection? The history of prodrome with herpes labialis is key to understanding the diagnosis. The key to the diagnosis of herpes encephalitis is altered behavior and mentation in the presence of fever. What other additional laboratory findings may be ordered? No other tests are needed. How can disease be prevented? If a patient has frequently recurrent herpes labialis or genital herpes, suppressive therapy with either valacyclovir or famciclovir may be offered. There are no vaccines to prevent HSV infections. N Engl J Med. Whitley, RJ,, Roizman, B. No sponsor or advertiser has participated in, approved or paid for the content provided by

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Chapter 3 : Cold sores (herpes simplex type 1) - including symptoms, treatment and prevention :: SA Health

Herpes simplex is a viral disease caused by the herpes simplex virus. Infections are categorized based on the part of the body infected. Oral herpes involves the face or mouth.

By surekha Herpes simplex is the name of virus that causes infectious sores on your body. Shortly called as HSV, herpes simplex affects any part of your body, but often it causes painful sores on your mouth, lips and genitals. HSV can be broadly divided into two types. HSV-1 is responsible for causing blisters on the face and mouth and hence called as oral herpes. This type of blisters is called by other names like fever blisters or cold sores. HSV-2 also called as genital herpes can affect your genitals causing sores on private parts. Herpes simplex can affect any person, ranging from children to adult and elderly people. A person with weakened immunity can get easily infected with HSV People having multiple sex partners and that too without taking any precaution can get infected with HSV Women who do vaginal douching are at risk of getting this infection. Pregnant women can transfer this infection to her baby. Herpes simplex virus is marked by sores or blisters on the affected part of the body. HSV-1 can cause painful lesions on your mouth, lips and inside the oral cavity. Painful blisters can cause difficulty to eat or drink and even talk. Swollen lymph nodes, mild fever, headache and tiredness are some of the general symptoms caused by HSV. In case you are infected with HSV-2 or genital herpes it can cause itching and irritation and pain during urination. Genital area becomes swollen and red spots may develop on it. There are people who are asymptomatic without any symptoms but still infected with HSV. Herpes simplex virus type 1 can spread through oral secretions and HSV-2 through sexual contact. Kissing the infected person can transfer the virus to you without your knowledge. Virus will not cause any blisters as soon as it enters the body. It can remain dormant without causing any symptoms. Having fever or any other general illness makes one prone to develop Herpes infection. People with weakened immunity or those undergoing chemotherapy can get viral infection. HSV is contagious and can easily spread from one person to another. Once a person gets infected with HSV the virus can remain dormant in his body for long term. HSV-2 can easily spread through sexual contact with the infected person. Your doctor would check for the symptoms of blisters or sores in your face and oral cavity, if you are infected with HSV Culture of saliva is done on the lab to detect presence of herpes simplex. Treatment is based on the intensity of symptoms. Antiviral medications like Zovirax or Famvir or valacyclovir is given. Most of the symptoms would get relieved after taking drugs. Complete the course of medication as instructed by your doctor. Gargle salt water for every hours to get relief from symptoms of inflammation of oral cavity. Avoid eating spicy and oily foods since it can worsen the symptoms. Abstain from sexual activity once you are diagnosed with virus. You can still spread the infection to others through sex even if the symptoms are cured. Sitting in warm bath can give great relief from pain caused by genital sores. Once you get herpes virus infection the virus would remain in the body dormant in the nerve cells, without causing any symptoms. When the conditions are favorable it can again cause outbreak. Fever, menstruation and heightened stress can trigger the virus to start the infection. Pictures of Herpes Simplex: HSV cannot be cured completely, but you can prevent getting the symptoms, by following certain precautions. Avoid sharing anything with infected person. Practice good oral hygiene. Instruct your children to wash hands thoroughly before eating. Do not send your child to school if he has been infected. Avoid having sex with multiple partners and strangers. Abstain yourself from sexual activity in any form until the infection is cured completely.

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Chapter 4 : Herpes Simplex Virus (HSV)/Varicella Zoster Virus (VZV)

A closely related herpes simplex virus, HSV-2, causes most cases of genital herpes. But either HSV-1 or HSV-2 can cause a herpes sore on the face or genitals. Image used with permission of the American Academy of Dermatology National Library of Dermatologic Teaching Slides.

Print Diagnosis Your doctor usually can diagnose genital herpes based on a physical exam and the results of certain laboratory tests: This test involves taking a tissue sample or scraping of the sores for examination in the laboratory. Polymerase chain reaction PCR test. This test analyzes a sample of your blood for the presence of HSV antibodies to detect a past herpes infection. Treatment with prescription antiviral medications may: Help sores heal sooner during an initial outbreak Lessen the severity and duration of symptoms in recurrent outbreaks Reduce the frequency of recurrence Minimize the chance of transmitting the herpes virus to another Antiviral medications used for genital herpes include: Acyclovir Zovirax Valacyclovir Valtrex Your doctor may recommend that you take the medicine only when you have symptoms of an outbreak or that you take a certain medication daily, even when you have no signs of an outbreak. These medications are usually well-tolerated, with few side effects. Request an Appointment at Mayo Clinic Coping and support Finding out that you have genital herpes can cause embarrassment, shame and anger, among other emotions. You may be suspicious or resentful of your partner if you think he or she "gave" you the infection. Or you might fear rejection by your current partner or future partners. Here are healthy ways to cope with having genital herpes: Communicate with your partner. Be open and honest about your feelings. Trust your partner and believe what he or she tells you. Talk with your doctor or a counselor to learn how to live with the condition and minimize your chances of infecting others. Learn about your treatment options and how to manage outbreaks. Join a support group. Preparing for your appointment If you think you have genital herpes or other sexually transmitted infection, make an appointment to see your primary care doctor or gynecologist. What you can do Before your appointment, you might want to list answers to the following questions: What are your symptoms? When did they start? Do you have a new sexual partner or multiple partners? Have you ever been diagnosed with a sexually transmitted infection? Do you regularly use condoms? What medications or supplements do you take regularly? Some basic questions to ask your doctor include: What tests do I need? Should I be tested for other sexually transmitted infections? Should my partner be tested? Do I need to abstain from sexual activity during treatment? How can I avoid infecting my partner? What to expect from your doctor Your doctor is likely to ask you a number of questions, such as: Do you have pelvic pain? Do you have pain while urinating? Do you have sores or unusual discharge?

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Chapter 5 : Herpes simplex virus - Wikipedia

The herpes simplex virus, also known as HSV, is an infection that causes herpes. Herpes can appear in various parts of the body, most commonly on the genitals or mouth.

Cluster of vesicles on the lip, representing orolabial herpes. After the vesicles have ruptured, patients may manifest with an ulcer with a scalloped border. Extensive resistant herpes simplex virus infection on the face. Chronic peri-oral herpes around the mouth and nose. Chronic herpes ulcers in the genital area. Herpes simplex manifesting as a chronic verrucous follicular nodule. How did the patient develop herpes simplex virus infection? What was the primary source from which the infection spread? Herpes simplex virus HSV can be spread by infected individuals who are asymptomatic or symptomatic during times of viral shedding. HSV-1, which is more commonly associated with oral herpes, is primarily spread by contact with infected saliva or other secretions. HSV-2, which is more commonly associated with genital herpes, is primarily spread by sexual contact. The virus replicates at the site of infection, travels retrograde to the dorsal root ganglion, and establishes latent infection. Recurrent lesions occur with reactivation of latent disease. Triggers for reactivation of latent disease include stress, fever, immunocompromised state, damage to local tissue, and ultraviolet light. Which individuals are of greater risk of developing herpes simplex virus infection? Risk factors for acquiring genital disease are age 15 to 30 years, increased number of sexual partners, black or Hispanic race, and HIV positivity. Varicella zoster virus infection: Individual lesions of varicella zoster may look exactly like herpes simplex, with clustered vesicles or ulcers on an erythematous base. Varicella zoster tends to follow a dermatomal distribution, which can help to distinguish from herpes simplex. Disseminated herpes simplex and disseminated zoster may be indistinguishable clinically. These occur most commonly in the mouth but can also involve the genitals, such as in Behcet disease. Large aphthous ulcers can be associated with HIV infection. These most commonly occur on the mucosal inner lips, tongue, floor of the mouth, and inner cheeks. They occur as small round ulcers with a yellow or grey ulcer floor, which often occur singly or in a linear fashion. They usually heal within 1 week. Additional mimickers of genital herpes: This is usually a single ulcer, which is painless, and usually not recurrent. HIV may present with major aphthous ulcerations, which occur most commonly on the oral mucosa. What laboratory studies should you order and what should you expect to find? Results consistent with the diagnosis Serologic tests can show primary seroconversion for HSV-1 or HSV-2 infection; however, it does not definitively diagnose active disease. Results that confirm the diagnosis Tzank smear: Scraping of the base of an early unroofed blister can demonstrate virally infected multinucleated epithelial giant cells. Biopsy can show virally infected multinucleated epithelial giant cells. This may be positive within 48 hours and can allow for resistance testing if needed. HSV deoxyribonucleic acid detection: Gene amplification by PCR, ligase chain reaction, or other methods can be done on skin lesions or cerebral spinal fluid when evaluating for encephalitis and other infected tissue. Cells scraped from the base of an early unroofed blister are stained with a direct fluorescent antibody. What imaging studies will be helpful in making or excluding the diagnosis of herpes simplex? Imaging studies are only useful when there is suspected HSV encephalitis. Brain imaging studies, such as computed tomography and magnetic resonance imaging scans, can be performed to look for involvement of the temporal lobe. What consult service or services would be helpful for making the diagnosis and assisting with treatment? If you decide the patient has herpes simplex virus infection, what therapies should you initiate immediately? Dermatology would be most helpful in diagnosing this infection when there is skin or mucous membrane involvement. If the patients are immunocompetent, no therapy may be necessary since the lesions usually self-resolve. If the patient is immunocompromised, severely symptomatic, or disseminated or the lesions are extensive, treatment is needed. Recommended medications for initial or recurrent infection include aciclovir, valaciclovir, and famciclovir all evidence category A. Aciclovir resistant infection can be treated with intravenous foscarnet or topical cidofovir evidence category C. If the patient has frequent recurrences, chronic suppressive treatment

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may be an option.

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Chapter 6 : STD Facts - Genital Herpes

Herpes simplex virus infection may be asymptomatic. For primary infections, symptoms occur approximately 3 days to 1 week after exposure to infection. Patients with primary infection may have a prodrome, which can include symptoms, such as fever, malaise, loss of appetite, and localized pain and/or burning at the site the lesions will occur.

HSV-2 is a sexually transmitted infection that causes genital herpes. Most oral and genital herpes infections are asymptomatic. Symptoms of herpes include painful blisters or ulcers at the site of infection. Herpes infections are most contagious when symptoms are present but can still be transmitted to others in the absence of symptoms. Infection with the herpes simplex virus, commonly known as herpes, can be due to either herpes simplex virus type 1 HSV-1 or herpes simplex virus type 2 HSV-2. HSV-1 is mainly transmitted by oral to oral contact to cause infection in or around the mouth oral herpes. HSV-2 is almost exclusively sexually transmitted, causing infection in the genital or anal area genital herpes. However, HSV-1 can also be transmitted to the genital area through oral-genital contact to cause genital herpes. Both oral herpes infections and genital herpes infections are mostly asymptomatic but can cause mild symptoms or painful blisters or ulcers at the site of infection. Most HSV-1 infections are acquired during childhood, and infection is lifelong. The vast majority of HSV-1 infections are oral herpes infections in or around the mouth, sometimes called orolabial, oral-labial or oral-facial herpes, but a proportion of HSV-1 infections are genital herpes infections in the genital or anal area. Scope of the problem In , an estimated 3. With respect to genital HSV-1 infection, million people aged years were estimated to have genital HSV-1 infection worldwide in , but prevalence varied substantially by region. In other regions, for example in Africa, most HSV-1 infections are acquired in childhood, before the age of sexual debut. Signs and symptoms Oral herpes infection is mostly asymptomatic, and the majority of people with HSV-1 infection are unaware they are infected. Symptoms of oral herpes include painful blisters or open sores called ulcers in or around the mouth. After initial infection, the blisters or ulcers can periodically recur. The frequency of recurrences varies from person to person. Genital herpes caused by HSV-1 can be asymptomatic or can have mild symptoms that go unrecognized. When symptoms do occur, genital herpes is characterised by 1 or more genital or anal blisters or ulcers. After an initial genital herpes episode, which may be severe, symptoms may recur, but genital herpes caused by HSV-1 often does not recur frequently. Transmission HSV-1 is mainly transmitted by oral-to-oral contact to cause oral herpes infection, via contact with the HSV-1 virus in sores, saliva, and surfaces in or around the mouth. HSV-1 can be transmitted from oral or skin surfaces that appear normal and when there are no symptoms present. However, the greatest risk of transmission is when there are active sores. Individuals who already have HSV-1 oral herpes infection are unlikely to be subsequently infected with HSV-1 in the genital area. In rare circumstances, HSV-1 infection can be transmitted from a mother with genital HSV-1 infection to her infant during delivery. Possible complications Severe disease In immunocompromised people, such as those with advanced HIV infection, HSV-1 can have more severe symptoms and more frequent recurrences. Rarely, HSV-1 infection can also lead to more severe complications such as encephalitis or keratitis eye infection. Neonatal herpes Neonatal herpes can occur when an infant is exposed to HSV in the genital tract during delivery. This is a rare condition, occurring in an estimated 10 out of every , births globally, but can lead to lasting neurologic disability or death. The risk for neonatal herpes is greatest when a mother acquires HSV infection for the first time in late pregnancy. Women who have genital herpes before they become pregnant are at very low risk of transmitting HSV to their infants. Psychosocial impact Recurrent symptoms of oral herpes may be uncomfortable and can lead to some social stigma and psychological distress. With genital herpes, these factors can have an important impact on quality of life and sexual relationships. However, in time, most people with either kind of herpes adjust to living with the infection. Treatment Antiviral medications, such as acyclovir, famciclovir, and valacyclovir, are the most effective medications available for people infected with HSV. These can help to reduce the severity and frequency of symptoms, but cannot cure

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the infection. WHO guidelines for the treatment of Genital Herpes Simplex Virus Prevention HSV-1 is most contagious during an outbreak of symptomatic oral herpes, but can also be transmitted when no symptoms are felt or visible. People with active symptoms of oral herpes should avoid oral contact with others and sharing objects that have contact with saliva. They should also abstain from oral sex, to avoid transmitting herpes to the genitals of a sexual partner. Individuals with symptoms of genital herpes should abstain from sexual activity whilst experiencing any of the symptoms. People who already have HSV-1 infection are not at risk of getting it again, but they are still at risk of acquiring herpes simplex virus type 2 HSV-2 genital infection see below. The consistent and correct use of condoms can help to prevent the spread of genital herpes. However, condoms can only reduce the risk of infection, as outbreaks of genital herpes can occur in areas not covered by a condom. Pregnant women with symptoms of genital herpes should inform their health care providers. Preventing acquisition of a new genital herpes infection is particularly important for women in late pregnancy, as this is when the risk for neonatal herpes is greatest. Additional research is underway to develop more effective prevention methods against HSV infection, such as vaccines. Several candidate HSV vaccines are currently being studied. Herpes simplex virus type 2 HSV-2 HSV-2 infection is widespread throughout the world and is almost exclusively sexually transmitted, causing genital herpes. HSV-2 is the main cause of genital herpes, which can also be caused by herpes simplex virus type 1 HSV Infection with HSV-2 is lifelong and incurable. Scope of the problem Genital herpes caused by HSV-2 is a global issue, and an estimated million people worldwide were living with the infection in Prevalence of HSV-2 infection was estimated to be highest in Africa It was also shown to increase with age, though the highest numbers of people newly-infected were adolescents. More women are infected with HSV-2 than men; in it was estimated that million women and million men were living with the infection. This is because sexual transmission of HSV is more efficient from men to women than from women to men. Signs and symptoms Genital herpes infections often have no symptoms, or mild symptoms that go unrecognised. Most infected people are unaware that they have the infection. When symptoms do occur, genital herpes is characterised by one or more genital or anal blisters or open sores called ulcers. In addition to genital ulcers, symptoms of new genital herpes infections often include fever, body aches, and swollen lymph nodes. After an initial genital herpes infection with HSV-2, recurrent symptoms are common but often less severe than the first outbreak. The frequency of outbreaks tends to decrease over time. People infected with HSV-2 may experience sensations of mild tingling or shooting pain in the legs, hips, and buttocks before the occurrence of genital ulcers. Transmission HSV-2 is mainly transmitted during sex, through contact with genital surfaces, skin, sores or fluids of someone infected with the virus. HSV-2 can be transmitted from skin in the genital or anal area that looks normal and is often transmitted in the absence of symptoms. In rare circumstances, HSV-2 infection can be transmitted from a mother to her infant during delivery. Infection with HSV-2 in people living with HIV and other immunocompromised individuals often has a more severe presentation and more frequent recurrences. In advanced HIV disease, HSV-2 can lead to more serious, but rare, complications such as meningoencephalitis, esophagitis, hepatitis, pneumonitis, retinal necrosis, or disseminated infection. Psychosocial impact Recurrent symptoms of genital herpes may be painful and the infection can lead to social stigma and psychological distress. These factors can have an important impact on quality of life and sexual relationships. However, in time, most people with herpes adjust to living with the infection. Treatment Antivirals, such as acyclovir, famciclovir, and valacyclovir are the most effective medications available for people infected with HSV. HSV-2 is most contagious during an outbreak of sores, but can also be transmitted when no symptoms are felt or visible. The consistent and correct use of condoms can help reduce the risk of spreading genital herpes. However, condoms only provide partial protection, as HSV can be found in areas not covered by a condom. Additional research is underway to develop more effective prevention methods against HSV infection, such as vaccines or topical microbicides compounds which can be applied inside the vagina or rectum to protect against sexually transmitted infections. Such research includes the development of HSV vaccines and topical microbicides. Several candidate vaccines and microbicides are currently being studied.

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Chapter 7 : Herpes Simplex - Symptoms, Causes, Pictures, Treatment, Prognosis | Diseases Pictures

Studying the epidemiology, identity, pathogenesis and scientific beneficial properties of ailments linked to herpes simplex viruses, this significant reference evaluates the most recent remedy regimens, mechanisms of immune reaction and evasion, and learn relating to vaccines for the prevention and relief of HSV outbreaks.

Men can also develop sores in or on the: Penis Scrotum Recurrences are common Genital herpes is different for each person. The signs and symptoms may recur, off and on, for years. Some people experience numerous episodes each year. For many people, however, the outbreaks are less frequent as time passes. During a recurrence, shortly before sores appear, you may feel: Burning, tingling and itching where the infection first entered your body Pain in your lower back, buttocks and legs However, recurrences are generally less painful than the original outbreak, and sores generally heal more quickly. When to see a doctor If you suspect you have genital herpes " or any other sexually transmitted infection " see your doctor. Causes Two types of herpes simplex virus infections can cause genital herpes: This is the type that usually causes cold sores or fever blisters around your mouth. HSV-1 is often spread through skin-to-skin contact, though it can be spread to your genital area during oral sex. Recurrences are much less frequent than they are with HSV-2 infection. This is the type that commonly causes genital herpes. The virus spreads through sexual contact and skin-to-skin contact. HSV-2 is very common and highly contagious, whether or not you have an open sore. Risk factors Your risk of becoming infected with genital herpes may increase if you: Women are more likely to have genital herpes than are men. The virus is sexually transmitted more easily from men to women than it is from women to men. Have multiple sexual partners. Each additional sexual partner raises your risk of being exposed to the virus that causes genital herpes. Complications Complications associated with genital herpes may include: Other sexually transmitted infections. Having genital sores increases your risk of transmitting or contracting other sexually transmitted infections, including AIDS. Babies born to infected mothers can be exposed to the virus during the birthing process. This may result in brain damage, blindness or death for the newborn. In some cases, the sores associated with genital herpes can cause inflammation around the tube that delivers urine from your bladder to the outside world urethra. The swelling can close the urethra for several days, requiring the insertion of a catheter to drain your bladder. In rare instances, HSV infection leads to inflammation of the membranes and cerebrospinal fluid surrounding your brain and spinal cord. Genital herpes can lead to inflammation of the lining of the rectum, particularly in men who have sex with men. Prevention The suggestions for preventing genital herpes are the same as those for preventing other sexually transmitted infections: Abstain from sexual activity or limit sexual contact to only one person who is infection-free. Short of that, you can: If you think you might have genital herpes, ask to be tested for it. Your doctor may recommend that you start taking herpes antiviral medications late in pregnancy to try to prevent an outbreak around the time of delivery.

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Chapter 8 : Treatment of Common Cutaneous Herpes Simplex Virus Infections - - American Family Physic

Klein R. Treatment and prevention of herpes simplex virus type 1 infection. UpToDate version , last updated February 25, Available at: racedaydvl.com Accessed on July 14,

Cold sores herpes simplex type 1 Cold sores herpes simplex type 1 - including symptoms, treatment and prevention Cold sores also called fever blisters are cause by herpes simplex virus. Cold sores are usually caused by type 1 while type 2 is more often associated with genital herpes. How herpes simplex is spread The virus is spread by skin or mucous membrane the thin moist lining of many parts of the body such as the nose, mouth, throat and genitals contact with infected saliva. People with a history of cold sores may shed the virus in their saliva even without a blister being present. Sometimes these viruses can cause infections of the eyes, hands or brain, and may cause severe illness in pregnant women or people whose immune systems are weakened. Signs and symptoms The most common symptoms of infection by herpes simplex virus type 1 HSV1 are cold sores. These are ulcers of the skin or mucous membranes the thin moist lining of many parts of the body such as the nose, mouth, throat and genitals. Although HSV1 infection can occur at any age, most people get their first infection in early childhood; frequently symptoms are mild or absent. After the first infection, the virus remains latent resting in nerve cells in the brain or spinal cord and is present for life. If the virus becomes active again it results in cold sores: The blisters crust and heal within a few days. The virus can be triggered to become active again by physical or emotional stress, sunlight, a viral infection or hormonal changes. Appearance of the blisters is often preceded by tingling, itching and pain at the site. Diagnosis Herpes simplex virus infection can be diagnosed by scraping the base of the cold sore and examining cells under the microscope, by growing the virus, or by a PCR polymerase chain reaction test in a pathology laboratory. Blood tests are not usually helpful in diagnosis. Incubation period time between becoming infected and developing symptoms 2 to 12 days. Infectious period time during which an infected person can infect others Spread of infection is most likely when a moist blister is present. However, people with a history of cold sores may shed the virus in their saliva and are therefore capable of infecting others even without a blister being present. Treatment Topical therapy cream or ointment is available through pharmacies without a prescription. The cost is not covered by the Pharmaceutical Benefits Scheme for herpes simplex infections. Prevention Young children unable to follow good hygiene practices should be excluded from childcare, preschool or school while the cold sore is weeping cold sores should be covered with a dressing where possible follow good hand washing techniques do not kiss on or near the cold sore do not perform oral sex if cold sores are present do not share food or drink containers dispose of used tissues correctly.

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Chapter 9 : Genital herpes - Symptoms and causes - Mayo Clinic

Overview of Herpesvirus Infections By Kenneth M. Kaye, MD, Associate Professor, Division of Infectious Diseases, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School [Click here for Patient Education.](#)

A three-dimensional reconstruction and animation of a tail-like assembly on HSV-1 capsid 3D reconstruction of the HSV-1 capsid Animal herpes viruses all share some common properties. The structure of herpes viruses consists of a relatively large, double-stranded, linear DNA genome encased within an icosahedral protein cage called the capsid, which is wrapped in a lipid bilayer called the envelope. The envelope is joined to the capsid by means of a tegument. This complete particle is known as the virion. These genes and their functions are summarized in the table below. Early gene expression follows, to allow the synthesis of enzymes involved in DNA replication and the production of certain envelope glycoproteins. Expression of late genes occurs last; this group of genes predominantly encode proteins that form the virion particle. Many of these receptors are then pulled inwards by the cell, which is thought to open a ring of three gHgL heterodimers stabilizing a compact conformation of the gB glycoprotein, so that it springs out and punctures the cell membrane. The sequential stages of HSV entry are analogous to those of other viruses. At first, complementary receptors on the virus and the cell surface bring the viral and cell membranes into proximity. Interactions of these molecules then form a stable entry pore through which the viral envelope contents are introduced to the host cell. The virus can also be endocytosed after binding to the receptors, and the fusion could occur at the endosome. In electron micrographs, the outer leaflets of the viral and cellular lipid bilayers have been seen merged; [20] this hemifusion may be on the usual path to entry or it may usually be an arrested state more likely to be captured than a transient entry mechanism. In the case of a herpes virus, initial interactions occur when two viral envelope glycoprotein called glycoprotein C gC and glycoprotein B gB bind to a cell surface particle called heparan sulfate. Next, the major receptor binding protein, glycoprotein D gD, binds specifically to at least one of three known entry receptors. The nectin receptors usually produce cell-cell adhesion, to provide a strong point of attachment for the virus to the host cell. The interaction of these membrane proteins may result in a hemifusion state. Once attached to the nucleus at a nuclear entry pore, the capsid ejects its DNA contents via the capsid portal. The capsid portal is formed by 12 copies of portal protein, UL6, arranged as a ring; the proteins contain a leucine zipper sequence of amino acids, which allow them to adhere to each other. Viral epitope presentation with MHC class I is a requirement for activation of cytotoxic T-lymphocytes CTLs, the major effectors of the cell-mediated immune response against virally-infected cells. Replication[edit] Micrograph showing the viral cytopathic effect of HSV multinucleation, ground glass chromatin Following infection of a cell, a cascade of herpes virus proteins, called immediate-early, early, and late, is produced. In the case of HSV-1, no protein products are detected during latency, whereas they are detected during the lytic cycle. The early proteins transcribed are used in the regulation of genetic replication of the virus. The viral genome immediately travels to the nucleus, but the VHS protein remains in the cytoplasm. Here, concatemers of the viral genome are separated by cleavage and are placed into formed capsids. HSV-1 undergoes a process of primary and secondary envelopment. The primary envelope is acquired by budding into the inner nuclear membrane of the cell. This then fuses with the outer nuclear membrane, releasing a naked capsid into the cytoplasm. The virus acquires its final envelope by budding into cytoplasmic vesicles. LAT regulates the host cell genome and interferes with natural cell death mechanisms. By maintaining the host cells, LAT expression preserves a reservoir of the virus, which allows subsequent, usually symptomatic, periodic recurrences or "outbreaks" characteristic of nonlatency. Whether or not recurrences are symptomatic, viral shedding occurs to infect a new host. A protein found in neurons may bind to herpes virus DNA and regulate latency. When bound to the viral DNA elements, histone deacetylation occurs atop the ICP4 gene sequence to prevent initiation of transcription from this gene, thereby preventing transcription of other viral genes involved in the lytic cycle.