

Article

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HERPES SIMPLEX VIRUS: The facts about infection, transmission and treatment.

*Tingling, burning, fatigue, fever, muscle aches? OOH OUCH!
Cold sores and painful blisters in areas you'd rather not tell about...*

BACKGROUND

“Herpes” is a viral infection causing painful outbreaks of watery blisters on the skin and mucous membranes in humans.

- There are two common strains of the Herpes Simplex Virus (HSV): **HSV-1** and **HSV-2**.
- They are a part of the *Herpesviridae* viral family.

INFECTION

Pre-infection: even before blisters appear, many people experience signs and symptoms that foreshadow the ensuing outbreak. Fever, swollen lymph nodes, fatigue, achy muscles, tingling and burning in the areas of skin pertaining to the outbreak are common. This stage of pre-infection is referred to as the *prodermal stage*.

Infection: painful watery blisters appear around the lips and lower face or around the buttocks and genitals. The location of sores depends on the type of herpes strain, but more often relates to the area of skin where the virus was first contracted. The lesions will scab over and heal, but later re-infection occurs because the virus establishes *latency* (resting HSV particles) in the cells of the nervous system.

HSV-1 usually establishes latency in the trigeminal ganglion (nerve cell associated with the **facial nerve**). When activated, it tends to cause painful “fever blisters” or “cold sores” on the lip, in the mouth or on the lower face. The blister begins as a vesicle resembling chickenpox (Varicella Zoster virus), which also belongs to the *Herpesviridae* family.

HSV-2 usually sets up residence in the nerve cells of the **sacrum (base of the spine)**. When activated, it tends to cause painful sores in the genital area, groin, buttocks and vaginal mucosa.

Either type can reside in either or both areas of the body.

REACTIVATION

Once contracted the herpes virus is never completely eradicated from the body. ***Active infections are kept at bay unless the immune system is under stress.*** Once activated the virus reproduces in the nerve cells and travels along the course of the nerve to infect associated areas of skin or mucous membranes. The sores are painful because they are connected with NERVES, which are very SENSITIVE to pain. This aspect is similar to another viral infection, also a member of the *Herpesviridae*, Herpes Zoster virus, commonly known as “shingles”.

Circumstances that stress the immune system:

Physical Stress: lack of proper rest and sleep, sub-optimal or excessive levels of exercise, poor nutrition, over consumption of foods that cause allergy, sensitivity or intolerance, infection with another virus, bacteria or parasite, extremes of body temperature (cold or hot), overexposure to sunlight, overuse of

pharmaceutical or recreational drugs such as marijuana, nicotine, caffeine and alcohol and for some women menstrual cycles.

Mental/Emotional Stress: The experience of stress in the body-mind-emotional plane has a profound influence on health or ill health particularly affecting the digestive, nervous, hormonal and immune systems. Stress can lead to poor sleep, poor digestion and inadequate absorption of key nutrients, which weakens the body, and causes a depression of the immune and hormonal systems, but stimulates parts of the nervous system. This creates the perfect scenario for re-activation and infection of latent HSV.

TRANSMISSION

Transmission of HSV can occur during three stages of infection:

1. **PRODUCING STAGE:** This is the beginning of infection (no sores present) and is often marked by prodermal signs and symptoms.
2. **BLISTER STAGE:** visible blisters are present and painful.
3. **SHEDDING STAGE:** Shedding of viral particles occurs in the recovery phase, when the scabs have healed over and disappeared but dead skin cells, containing the virus are shedding.
 - HSV is contracted through oral-oral, oral-genital, genital-genital, anal-genital contact with an HSV carrier, particularly when blisters are visible but also when they are not (beginning and end of infection).
 - HSV is present in saliva, vaginal fluid, semen and shedding skin or from eczema in the pelvic or oral region.
 - HSV can be transmitted to infants during birth, as they pass through the birth canal. The transmission from mother to infant occurs if there is an active vaginal infection present at the time of birth. For infants, with immature immune systems, HSV can be lethal and can cause serious brain infection.

TREATMENT OPTIONS

Conventional (allopathic) and naturopathic systems of medicine offer choices for HSV management.

Allopathic Treatment Goal:

- Reduce the frequency, intensity and duration of outbreaks.
- Drugs are designed to suppress viral replication.

Anti-viral Drugs:

- These medicines slow the production and spread of HSV. They are best taken as soon as prodermal signs and symptoms begin.
- Some people take these drugs long-term in order to continuously suppress outbreaks.
- *These drugs do not cure HSV nor do they prevent transmission of HSV to another person.*

Anti-viral Drugs: Aciclovir (Zovirax), Famvir, Valtrex, Ganciclovir (cytovene, cymevene).

Topicals for Cold Sores: Penciclovir (Denavir), Doconasol.

These drugs can have undesirable SIDE EFFECTS such as: headaches, nausea, vomiting, diarrhea, stomach pain, skin rash, fatigue, joint pain, menstrual pain and dizziness.

The body detoxifies these medications primarily via the kidneys. This is not a problem for most people taking the drugs short-term. It is a concern however, if the drugs are used daily for long-term suppression or there are underlying weaknesses in the kidneys to begin with.

Ganciclovir is “cytotoxic”. Although it is effective at killing HSV, it is not specific to HSV and by its mechanism will also kill normal cells, especially those that rapidly replicate in the body, such as important infection fighting white blood cells and platelets in the blood system. Platelets are important because they prevent over-bleeding due to injury.

Naturopathic Treatment Goal:

- Reduce the frequency, intensity and duration of HSV outbreaks.
- Prevent infection and reduce transmission risk to non-HSV-carriers.
- Build and strengthen the immune status of HSV carriers and non-HSV carriers, instead of using drugs to merely suppress viral replication.
- Employs herbal remedies that inhibit viral growth and spread of HSV.

Building and strengthening a persons immune status is a holistic body approach, which has enormous benefits above and beyond preventing HSV infection. Strengthening immunity results in reduced infections of other types of viruses in the herpesviridae family (chickenpox and shingles) but also provides protection against non-herpesviridae viruses such as the human papilloma virus, common colds and other types of flu viruses. This aspect can be considered a POSITIVE SIDE EFFECT of the naturopathic approach to HSV treatment/management.

Holistic five-fold approach to HSV:

1. DIETARY MODIFICATION
2. HERBAL MEDICINES
3. NATURAL SUPPLEMENTS
4. STRESS REDUCTION
5. EDUCATION ON SEXUAL CONTACT

- **HSV-carriers** can follow this protocol to prevent HSV outbreaks.
- **Non-HSV carriers** can also follow this protocol (dietary and natural supplement recommendations) in order to help reduce the risk of contracting HSV.
- *This protocol does not cure HSV nor does it guarantee non-transmission of HSV to an un-infected person.*

DIETARY MODIFICATION

Avoid:

Sugar: white sugar and refined white breads, cereals, pastas, pastry and sugary drinks like pop, fruit drinks and iced tea.

Processed, over packaged and canned foods: these “foods” contain dyes, preservatives and other chemicals.

Foods that cause allergy/sensitivity: avoid any food that does not agree with you.

These foods, associated chemicals and substances put severe stress on the body tissues and organs and as a result strain the immune system leaving a person vulnerable to frequent HSV outbreaks.

Consume:

Filtered Water (one to two liters per day): This helps to hydrate your skin so it does not become dried out and cracking, which makes for easy access of HSV into your blood. If you take conventional anti-viral medication it is very important to consume lots of water.

Fresh Vegetables and Fruits (at least, three servings of each, every day): These foods are packed with many vitamins and minerals essential for optimal immune function.

Essential Fatty Acids (EFA), omega-3, 6 and 9: Studies show that EFA deficiency leads to compromised immunity and chronic infections. Make use of healthy oils in your cooking and for homemade salad

dressings. Examples are olive, sunflower and safflower oils (omega 9 and 6) and flax oil or hemp oil (omega-3).

Protein: Every component of your entire immune system is made of protein! Consume nuts, seeds and nut and seed butters for protein and essential fatty acids. Other protein sources include beans, lentils, hummus, tahini, soy products such as soymilk, tofu, tempeh, miso, soybeans and soy nuts. Animal sources of protein include organic milk, cheese, yogurt, cottage cheese, fish, chicken, beef, pork and eggs.

Arginine-Lysine Ratio: Both arginine and lysine are amino acids.

- Arginine enhances HSV and lysine suppresses HSV replication.
- Clinical studies suggest that when HSV infection is present or about to break out, avoiding foods with high amounts of arginine and consuming foods with lysine is beneficial for speeding recovery or preventing HSV infection.

Avoid high arginine content foods: beef, peanuts, cashews, almonds, wheat germ and chocolate.

Consume high lysine content foods: lentils, beans (all types including soybeans), cereal grains (quinoa, amaranth), watercress, spinach and carob, fish and poultry.

- Using a supplement of lysine helps to suppress viral replication further:
Take 1000mg 3x/day with food during an outbreak and 500mg 3x/day for prevention.

HERBAL REMEDIES

Topical: Lemon Balm (*Melissa officianalis*) oil, salve, cream or tincture can be applied topically to blisters. Use as often and as needed. Lemon balm eases the pain and suppresses viral replication.

Topical vitamin E can also help to protect healthy skin cells from being infected.

Tincture Combination of anti-viral herbal remedies for internal use:

Licorice Root, Lomatium, Ligusticum, Osha Root

During active infection: use 30 - 60 drops, 4 – 6 x/day away from food.

For prevention (HSV-carrier and non-carrier): Astragalus and Reishi Mushroom can be taken in addition to one or all of the above herbs: 30 drops daily away from food.

Before taking herbal medicines please consult with your naturopathic doctor about specific dosing and herbal combinations that are appropriate for you.

STRESS REDUCTION

Sunshine, fresh air and activity: Fresh air and activity such as, walking, jogging, cycling, skiing, skating or tobogganing help to deliver optimal amounts of oxygen to your blood and immune system. Winter and spring sunshine increases your vitamin D status, which may help the immune system to ward off viral illnesses.

REST and RELAXATION: When you are under stress over long periods a hormone called cortisol increases in your blood. This hormone suppresses your immune system and can leave you prone to infections from viruses and bacteria. High cortisol affects all body systems and can increase allergies (food and environmental) putting extra strain on the immune system.

Activities that reduce stress: Yoga, tai chi, qi gong, meditation.

VITAMINS

Probiotic Supplements: healthy bacterial flora in the digestive tract is essential for a healthy immune system.

HMF Probiotic Products:

- **HMF Forte** – 2 capsules per day with food.

Keep all HMF Products in the fridge.

One type of healthy bacteria for the digestive system (acidophilus) is found in moderate levels in natural, regular fat yogurt.

Omega –3 Fatty Acids: Use fish oil supplements for optimal immune function.

- **Super EFA Liquid:** 2 tsp per day with food or **Cod Liver Oil (Vitamin A, D):** 1tbsp/day with food.
- Keep oil supplements cool.

Vitamin C: has been shown to inactivate the herpes virus.

- **Scorbatate (powdered vitamin C).** High quality, absorption rate and concentrated dosing. Take 1 full teaspoon in 8oz of water per day.

Vitamin D: studies show excellent anti-viral potential with vitamin D supplementation.

- **Vitamin D tablet (1000IU):** take 1 with each meal (3x/day).

Zinc: the immune cells are highly dependant on zinc and some small studies have shown that zinc supplementation greatly helped to treat herpes infection and prevent future recurrence.

- **Zinc Tablet:** take 1 (30mg) tablet per day with food for 3 to 6 months.
- Do not take zinc long-term (> 6 months) without supplementing copper in a 2:1 ratio (Zinc: Copper).

EDUCATION ON SEXUAL CONTACT

Like conventional drugs, naturopathic medicines do not cure or prevent transmission of HSV, even though they may help to reduce this risk. Thus, safe sex practices are also recommended.

- Avoid sexual contact if there are prodromal symptoms present (producing stage), blisters present (very contagious stage)- and for 10-15 days after the scabs have dried up to make sure both partners are clear of the shedding stage.
- Use a condom: Latex condoms can reduce the risk of infection; however if the area of outbreaks are or have been outside the area covered by a condom, transmission can still occur.

Healthy sexual activity between an HSV carrier and non-carrier is entirely possible. Both partners need to take good care of their overall health and pay attention to their body's signs and symptoms. Transmission can be avoided to the non-carrier, while the HSV-carrier experiences fewer painful outbreaks. The relationship can be as close and intimate as any other, while both partners enjoy excellent health.

Healing Foundations Naturopathic Clinic

Phone: 519-821-1999 **Email:** heidimcgillnd@bellnet.ca

Website: www.heidimcgillnd.com