Herpes simplex Virus in the Eye

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What is Herpes simplex?

Herpes simplex (or just “Herpes”) is another name for the “cold sore” virus. It commonly causes local blisters and scabbing around the mouth and nose but occasionally infects the eye where, unlike the skin, it may cause scarring or chronic inflammation. The cold sore virus is a different strain of herpes than the one associated with sexually transmitted disease; ocular herpes is not an STD. Cold sores, however, no matter where they occur, may come back. Factors that may cause recurrence are generally stress related such as fever, major dental or surgical procedures, sunburn (ultraviolet light), and trauma.

How does herpes get into the eye?

The source of infection is usually a family member or friend who is silently shedding virus in the saliva or nasal secretions, or who has an active cold sore. When the virus first enters the body, usually through the nose or mouth, it travels through the nerves up to the same center, which also sends nerves to the eye. There it goes to
sleep in an inactive infection state and may never reawaken. Occasionally, the virus does reactivate (stress!) and, instead of traveling back down the nerves to the mouth or nose, it goes to the eye causing the illness there.

**Who gets this infection?**

Herpes is one of the most common conditions in the world infecting at least 60% of the population, usually in the facial area, by the age of 5 years. In the industrialized nations it is the most common infectious cause of corneal blindness. There are approximately 500,000 cases of ocular herpes per year in the United States. Fortunately, the vast majority can be effectively treated.

**What are the signs and symptoms?**

Tearing, eye redness, blurry vision, and ocular discomfort are the most common presenting signs and symptoms. Viral infections of any type (herpes, adenovirus, mumps, flu) often differ from bacterial infections like Staph. in that the discharge is watery whereas with bacteria it tends to be thicker, sticky, and with more mucus. In some patients a cold sore will have developed somewhere else on the face thus pointing to the diagnosis of herpes in the eye.

**Is there more than one form of herpes in the eye?**

There are several forms of ocular herpes. The most common is 1. the viral infection, i.e. a cold sore in the eye. Typically it causes a branching sore or ulcer on the surface of the cornea (the clear window at the front of the eye). Other forms include 2. sterile ulcers that are slow to heal because of mechanical damage from the preceding virus infection, 3. allergic or immune haze deeper in the cornea due to reaction to virus proteins left after the infection has cleared, and 4. iritis or inflammation of the blue or brown part of the eye located behind the cornea. The immune form of corneal disease causes the greatest scarring.

**How is ocular herpes treated?**

Fortunately, we now have several effective approaches for treating all forms of this disease. 1. The infectious ulcers are treated either with antiviral eye drops or pills over a two to three week period. In some patients, both are used. 2. The sterile ulcers are often treated with lubricating/antibiotic eyedrops and a therapeutic contact lens, which is placed by the physician and left in place for weeks to months. The patient does not need to do anything to the lens. 3 + 4. The immune or allergic haze and/or the iritis are treated with steroid drops and protective antiviral (pill or drop) and antibiotic (drop or ointment) coverage. Although package inserts for steroids say they should not be used in treating herpes, there are, in fact, certain inflammatory forms of ocular herpes where steroids are needed and indicated. 5. For those relatively few eyes where, despite the best of treatment, the virus has caused vision-impairing scars, corneal transplantation surgery is often a highly successful solution.

**Who diagnoses and treats herpes simplex in the eye?**

Eye physicians and surgeons (ophthalmologists) are medical doctors (M.D.s) who have been trained over years in the medical and surgical care of the eyes. They are the best qualified to treat ocular herpes. For straightforward infection or milder immune or inflammatory conditions, all ophthalmologists are qualified. For the more complicated, chronic recurring or scarring forms a Cornea specialist, (an ophthalmologist who has
undergone additional training in diseases of the cornea and external eye), should be involved in care and decision making. The Harvard Medical School Department of Ophthalmology, located at the Massachusetts Eye and Ear Infirmary, has a Cornea Service staffed by these specialists.

Can herpes be cured?

Unfortunately, while we do have excellent treatment for episodes of ocular herpes, we do not have a cure as no treatment can, as yet, eliminate the form of the virus that sleeps in the nerve center mentioned above. We do have effective long-term treatment with antiviral pills that inhibit the recurrence of illness in those patients with strains of virus prone to reactivating frequently.

How do I get more information?

Please call your local ophthalmologist if you think you may have ocular herpes. For a referral to an ophthalmologist in the New England area or in the Cornea Service at the Infirmary call the Massachusetts Eye and Ear Infirmary, 617-573-4199 (referral line). For more information on the Infirmary please go to the home page at http://www.meei.harvard.edu/. For information about ocular and other forms of Herpes zoster (shingles) go to the Massachusetts General Hospital web page at http://shingles.mgh.harvard.edu/index.htm