More cases of ocular syphilis reported in the United States

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Since the year 2000 doctors and researchers in Canada and other high-income countries and regions have noticed a significant increase in cases of syphilis. This increase has affected some gay, bisexual and other men who have sex with men (MSM), particularly those with HIV infection. A few cases of ocular syphilis have also been reported among HIV-negative heterosexual men and women.

The germs that cause syphilis (called treponemes or spirochetes) are sexually transmitted through condomless sex—anal, oral and vaginal. In rare cases, wet kissing and sharing equipment for substance use can transmit the germs that cause syphilis. Syphilis can also be spread from an infected mother to the fetus. See CATIE’s Syphilis fact sheet for more information. Links to additional resources appear later in this bulletin.

The germs that cause syphilis can spread from their point of first entry to the rest of the body, causing inflammation in different tissues. Syphilis can affect many organs and causes a complex, multi-stage disease where at times there may be no symptoms (though the disease is still active). This means that some people may not be aware that they have syphilis, which is why regular, sometimes frequent, blood tests for syphilis may be useful for sexually active adults.

Ocular syphilis

In 2015, doctors in San Francisco and Seattle reported cases of syphilis affecting the eyes of their patients. In several cases, complications and blindness ensued.

Over the past two years the U.S. Centers for Disease Control and Prevention (CDC) has become aware of more than 200 cases of ocular syphilis. These cases have occurred in 20 states.

Ocular syphilis is a sign that syphilis is affecting nerves in the eye and possibly in the brain. In the past decade, doctors in high-income countries have reported cases of ocular syphilis in MSM. In that time, doctors in Toronto have also reported cases of syphilis where the nerves in the ear were injured, affecting the ability to hear. The Toronto cases were also in MSM who had HIV. Together these reports underscore the nerve-injuring capacity of syphilis.

In the time before the widespread availability of penicillin, doctors reported cases of ocular syphilis as treponemes attacked parts of the eye. This problem could occur both in the early and late stages of syphilis. After the introduction of penicillin in the mid-1940s, cases of syphilis (including ocular syphilis) eventually diminished, and in the latter half of the 20th century some public health planners in the U.S. even envisioned the eradication of syphilis. However, this goal has proved elusive. In the current era, it appears that reports of cases of ocular syphilis are increasing in the U.S. as part of the overall increase in syphilis. Cases of ocular syphilis are also occurring in Canada; however, an increase in such cases has not been published.

Advice from the CDC

The CDC has updated its clinical advisory for 2016. In addition to encouraging doctors to notify state or local health departments about cases of ocular syphilis, the agency provides the following guidance:

- Clinicians should be aware of ocular syphilis and screen for visual complaints in any patient at risk for syphilis
(MSM, HIV-infected persons, others with risk factors, and persons with multiple or anonymous partners).

- All patients with syphilis should receive an HIV test if status is unknown or previously HIV negative.
- Patients with positive syphilis serology and early syphilis without ocular symptoms should receive a careful neurological exam including all cranial nerves.
- Patients with syphilis and ocular complaints should receive immediate ophthalmologic evaluation.
- A lumbar puncture with cerebrospinal fluid (CSF) examination should be performed in patients with syphilis and ocular complaints.
- Ocular syphilis should be managed according to treatment recommendations for neurosyphilis.
- The case definition for an ocular syphilis case is as follows: a person with clinical symptoms or signs consistent with ocular disease (i.e. uveitis, panuveitis, diminished visual acuity, blindness, optic neuropathy, interstitial keratitis, anterior uveitis, and retinal vasculitis) with syphilis of any stage.

An upcoming **CATIE News** article will have more information from a recent U.S. report about patients who have been diagnosed with ocular syphilis.

**Resources**

- [Canadian guidelines on sexually transmitted infections – Management of syphilis](http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/15vol41/dr-rm41-02/surv-3-eng.php)
- [CATIE fact sheet on syphilis](http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/15vol41/dr-rm41-02/surv-3-eng.php)

**REFERENCES:**


Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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