



Toronto People With AIDS Foundation

# Treatment Bulletin

## Syphilis & HIV

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### Disclaimer

The Treatment Resources Program at the Toronto People With AIDS Foundation provides information and resources to empower people living with HIV/AIDS to be proactive around their health by working in partnership with their health care providers. We do not recommend or promote any treatment in particular. We strongly urge those interested in any specific treatment to consult a wide range of resources, including a qualified medical and/or complementary therapy practitioner who has experience in working with HIV+ individuals.

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Syphilis cases have been increasing in Toronto over the last decade, especially amongst the men having sex with men (MSM) population. Syphilis is important to recognize and treat since it can increase HIV transmission and also be transmitted to a baby during pregnancy.

This treatment bulletin is intended to increase your knowledge of syphilis, its treatment, prevention, and impact on HIV infection.

What is Syphilis?

Syphilis is a sexually transmitted infection (STI) that is caused by a bacterium called *Treponema pallidum*. The active disease is most often found in those between the ages of 15-39 years and men are more susceptible to contracting syphilis than women.

Syphilis is transmitted primarily through sexual contact with someone who has a syphilis sore. This includes oral sex, rimming, fingering, fisting, kissing, and mutual masturbation can also cause transmission through direct contact with sores, semen, or blood of an infected person. While the sores occur mainly on the external genitals, vagina, anus or in the rectum, they can occur anywhere that contact with affected area occurs. The bacteria can penetrate chafed skin and mucous membranes and is considered to be highly infectious.

It is also important to know that syphilis can be transmitted from mother to baby through the placenta while the baby is still in the womb. This is known as congenital syphilis and can have serious consequences.

What are the symptoms of Syphilis?

The symptoms of syphilis often mimic other conditions and so it can be easily missed. With syphilis infection rates increasing throughout North America over the last decade it is important to be aware of how to recognize its symptoms so that you can seek treatment. Without treatment, syphilis can affect your brain, nerves and other organs and lead to irreversible damage. If you think you might have syphilis you should stop having sexual contact until you get tested.

The three stages of syphilis are conveniently named: Primary, Secondary, and Tertiary syphilis and we'll discuss each of them separately.

#### Primary Phase

The primary phase generally starts with a non-painful sore called a chancre. It develops anywhere from 2-4 weeks (or sometimes longer) after initial infection with the bacteria that causes syphilis. The sore usually looks like a shallow crater and can appear on anywhere on the body, but usually on the male or female genitals, or wherever the bacteria entered the body through sexual contact. If it occurs inside the vagina or in the rectum, you may not notice that it is there, and so it can be easily missed, which is why it is always important for to use protection when engaging in sexual activity.

During the primary stage there is no feeling of being "unwell" or "sick" and the sore will usually go away after 3-6 weeks. The important thing to note is that the infection hasn't disappeared and you can still transmit the bacteria. It may then progress to the second stage (but does not occur in everyone).

#### Secondary syphilis

Secondary syphilis usually appears 4-10 weeks after the chancre sore. It has many symptoms which are very general and common to many illnesses and so can often be missed. Syphilis has historically been referred to as "the great pretender" for this reason. Syphilis can have a characteristic rash, which may be one of the identifying symptoms that leads your doctor to the correct diagnosis. Symptoms of secondary syphilis include:

- Fever
- Joint pain
- Muscle aches
- Sore throat
- Flu-like symptoms
- Whole body rash usually involving the palms and soles
- Headache
- Decreased appetite
- Patchy hair loss
- Swollen lymph nodes

If syphilis is not treated at this stage it can resolve on its own and become inactive, entering what is called a "latent" phase, which can eventually then progress to tertiary syphilis. In the secondary phase, you can still transmit the infection to your sexual partners.

### Latent Phase

The latent phase is a period of inactivity where you generally have no symptoms. You may be infectious for the first 1-2 years of this phase, but after two years most people will not be contagious. During this period, you may however, occasionally get relapses where you develop the symptoms of secondary syphilis. The latent phase can last years to decades, after which it can progress to tertiary syphilis, the most serious and damaging phase of syphilis.

### Tertiary Phase

If syphilis goes untreated, it can progress to the final phase, called tertiary syphilis, after many years or even decades. Thankfully, with the treatments available today, this phase is rarely seen, but approximately 1/3 of untreated cases will progress to tertiary syphilis. Once in this phase it is generally not considered to be infectious, however, can have serious health consequences, which may have lasting effects.

Tertiary syphilis progresses slowly and can affect many organs in the body including the heart, the liver, the brain, the skin, and the bones. Skin lesions called "gummas" can appear, which are soft, destructive and inflammatory masses that heal slowly and can scar. When destructive lesions occur in the bones it can lead to a deep, boring pain, which is typically worse at night.

When syphilis affects the nervous system (brain & spinal cord) it is known as neurosyphilis. Neurosyphilis can lead to progressively decreasing physical and mental function and result in mood changes and behavioral changes.

How is syphilis diagnosed?

If your doctor thinks that you may have syphilis he/she will take a detailed medical and sexual health history and use a blood test to confirm their diagnosis. The results are usually ready in 7-10 days. If you are in the primary phase, they may also look for a lesion in the areas they are most commonly found and take a sample from the sore and have it examined for the presence of the bacteria that causes syphilis. The type of test performed will depend on what stage of syphilis you are in.

An important thing to note is that a blood test will not show up as positive for syphilis until 3-6 weeks after the initial infection and so it is common to have a negative test in the early primary phase. Only after 6 weeks, can a negative blood test rule out syphilis. Once you have been treated, the doctor will continue to monitor your blood for at regular intervals (3, 6, 12, 24 months) to ensure that the treatment was effective.

If your doctor suspects that you have tertiary syphilis they will likely perform additional tests. For neurosyphilis, a procedure called a lumbar puncture (also known as a spinal tap) is performed and involves taking a sample of the fluid that surrounds the spinal cord and brain to test if syphilis has affected these areas. The test can be associated with mild to moderate discomfort and local anesthetic is used to minimize it. Imaging studies like an MRI or CT scan may also need to be done to determine if syphilis is affecting other organs in your body.

Syphilis is a condition that must be reported by your doctor to Public Health. There is no anonymous testing for sexually transmitted infections (other than HIV) and someone from public health will follow up with you to ensure that you have contacted recent sexual partners who might also have become infected. Telling your partner(s) can be difficult, but there is no need to worry. Public health can help you by notifying your previous and current partner(s), without giving them your name. This shouldn't be a reason to keep you from getting tested, since untreated syphilis can do a lot of damage to your body.

## Syphilis & HIV

Syphilis has particular relevance to HIV infection. There has been a dramatic increase in syphilis cases in Toronto and other places in the world in the MSM community and at least 1/3 of men diagnosed with syphilis also have HIV. Syphilis and HIV co-infection is particularly concerning because of its effects on the transmission of both HIV & syphilis and also the progression of syphilis infection.

Individuals living with HIV/AIDS (PHAs), are more likely to both contract and transmit syphilis. Since HIV weakens the immune system, it can make you more susceptible to picking up infections such as syphilis. If you are HIV+ and have syphilis, your immune system may not be able to control the amount of syphilis bacteria in your body and so you may be more contagious and move more quickly into stages 2 and 3. Also, HIV tends to be present in high numbers in the chancre sore and so is more likely to be transmitted during sexual contact.

Sores caused by STIs such as syphilis cause breaks in the skin and mucous membranes that normally act as barriers that help to protect us against infection. Because genital sores can bleed easily, coming into contact with genital tissue during sexual activity can make you more likely to either get or transmit HIV. Syphilis infection is also known to increase HIV viral load.

Finally, HIV has an impact on how the body responds to syphilis. In PHAs, the symptoms of syphilis can be much more severe. PHAs are also more likely to develop neurosyphilis and progress to tertiary syphilis much quicker.

How is syphilis treated?

Syphilis is treated using an antibiotic called penicillin, which is given through an injection into the buttocks. The injection can be uncomfortable, however, the discomfort will usually subside within a few days.

The number of antibiotic injections needed depends on which stage of syphilis you are in, and whether or not you are HIV positive. If you are in the primary, secondary, or early latent phase (infected for less than 1 year), generally one injection will be enough. For those that are HIV positive, however, many doctors are now giving three injections as they would with later stages of syphilis because of the impact of HIV infection on syphilis progression.

If you are in the late latent (infected for more than 1 year) phase or tertiary syphilis you will need to have 3 injections, each one week apart. For neurosyphilis, a much stronger course of antibiotics is needed, and will be given intravenously (i.v.) every 4 hours for 10-14 days.

If you are allergic to penicillin, another antibiotic may be given which you can take by mouth. Pregnant women, however, must have penicillin, and in the case of an allergy, will be desensitized first.

The most common side effect of treatment is a reaction (called a Jarisch-Herxheimer reaction) that occurs as a result of the large number of bacteria dying at once. The symptoms usually appear within 6-12 hours of treatment and usually go away within 24 hours. Common symptoms include fatigue, fever, headache, sweating, anxiety and/or a temporary worsening of syphilitic lesions.

Once you have been treated your doctor will continue to monitor you regularly for up to 2 years to ensure that the treatment was effective. Having been infected once does not prevent you from contracting syphilis again. It is important to protect yourself against re-infection and infection with other STIs.

How can you protect yourself against syphilis?

The key to protecting yourself from syphilis is using a barrier method when engaging in sexual activity. Barrier methods include condoms and dental dams during anal, vaginal and/or oral sex. This can help to prevent syphilis and also other STI's. Keep in mind, however, that other areas of the genitals not covered during sexual activity can still become infected.

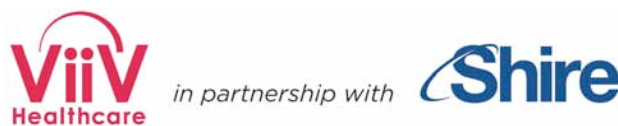
If you are HIV+ and have multiple sexual partners, consider asking your doctor to screen you for syphilis. Doctors do not routinely check for syphilis, even if you are HIV+, and so you should ask your doctor for the test if syphilis is a concern for you.

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## Mission

The Toronto People With AIDS Foundation exists to promote the health and well-being of all people living with HIV/AIDS by providing accessible, direct, and practical support services