

Sexual health

Syphilis

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Key points

- Syphilis is a sexually transmitted infection that is usually easy to treat.
- Syphilis can progress more quickly and severely in people living with HIV.
- It can be contracted during a wide range of sexual activities, but condoms provide some protection.

Syphilis is a bacterial infection, usually caught through sexual contact. Compared to other sexually transmitted infections (STIs), syphilis is relatively uncommon in the UK, but infection rates have been rising in the UK and the rest of Europe in recent years. HIV-positive gay and bisexual men are disproportionately impacted by syphilis.

Syphilis is curable. It is better to receive treatment early on. If left untreated, it can cause long-term irreversible complications such as damage to the heart and brain. It can even be fatal.

If you have both syphilis and HIV, syphilis may progress much faster than it does in HIV-negative people. It can also be harder to treat for people with HIV, especially if you are not taking HIV treatment and have a low **CD4 cell count**, so it is particularly important that it is treated early.

Transmission

Syphilis is an infection caused by the bacterium *Treponema pallidum*. There are three overlapping stages to the disease: primary syphilis; secondary syphilis, and tertiary syphilis. These stages are classified according to symptoms and time since infection.

During the primary and secondary stages, it is easy to pass the infection on to other people during sexual contact, including anal, vaginal and oral sex, or by sharing sex toys. It can also be transmitted by close physical contact with syphilitic rashes and lesions, which can be anywhere on the body.

It can also be passed on by sharing injecting equipment with someone who has the infection. Syphilis can also be passed to a baby during pregnancy and delivery, which can cause serious health problems for the child. In the UK, syphilis is tested for during pregnancy. You can contract syphilis from infected blood during a transfusion, although this is now very rare in the UK as all blood is tested before use.

When a person with HIV is *not* taking HIV treatment, untreated syphilis may make them more infectious. This is because untreated sexually transmitted infections can increase HIV **viral load** in genital fluids. However, if the person with HIV is taking effective HIV treatment and has an undetectable viral load, they will not pass HIV on. Syphilis will not make a difference to this.

Syphilis is not transmitted through contact with household objects or by sharing clothes, towels or bathrooms.

Prevention

Using a **condom** for oral, anal, or vaginal sex offers some protection from infection with syphilis, or from passing on the infection to somebody else. Protection is not complete because sores and rashes aren't always in the area protected by condoms. People who are sexually active are advised to have regular **sexual health check-ups**. Routine sexual health check-ups include a blood test for syphilis. It's also a good idea to mention any unusual rashes or sores to the doctor or nurse.

By avoiding sharing injecting equipment and avoiding sharing sex toys (or covering sex toys with a condom or cleaning them before each use) you can reduce the spread of syphilis.

Most **HIV clinics** offer sexual health checks where you can get free and confidential diagnosis, and treatment if necessary, without needing referral from your **GP** or **your HIV doctor**.

Symptoms

Many people have no symptoms in the early (primary) stage of infection. However, you are still infectious even if you have no symptoms.

Syphilis can progress more quickly and severely in people with HIV who are not on treatment, and you may have more serious symptoms in the early stage.

Shortly after becoming infected with syphilis (primary syphilis), a small sore, spot or ulcer (called a chancre) may appear at the site of infection – usually the anus, mouth, penis or vagina. The sore does not hurt and usually heals over three to eight weeks. Sometimes sores in the vagina and anus are missed because they cannot be seen. Some people have swollen glands during this time.

Unless you are treated for syphilis during the primary stage, after a few weeks you will start to show symptoms of 'secondary' syphilis. These can include a non-itchy rash anywhere (but commonly on the palms of your hands and the soles of your feet), small skin growths around the vagina or anus, and flu-like symptoms such as swollen glands, fever, muscle pain and headache. Other symptoms can include patchy hair loss, as well as issues with your kidneys, liver and spleen. The rash and skin growths are highly infectious. The symptoms may last a few weeks or come and go.

After this secondary stage, untreated syphilis moves into a 'latent' phase. You are still infected (and infectious for the first year or so) but have no symptoms. You can stay in this phase for many years.

If your syphilis infection is not treated, you usually develop 'tertiary' syphilis after years of infection. About a third of people with tertiary syphilis develop serious symptoms at this stage. What they are depends on where in the body the infection spreads. It can cause damage to the heart, bones, eyes, brain, nerves, skin and blood vessels, and can cause health problems such as heart disease, stroke, dementia, paralysis, blindness and deafness. People with a very low CD4 cell count may be at higher risk of damage to the brain (neurosyphilis). If left untreated at this stage, syphilis can cause death.

Diagnosis

A general sexual health check-up will include a blood test, which looks for antibodies produced by your body against the syphilis infection. The window period for syphilis detection (the time between original infection and when the antibodies are present) is four to five weeks. This means that taking a test shortly after you have been exposed to the bacterium may not detect infection.

Syphilis tests can be less reliable for certain groups of people because of false negative results. A false negative is when a test comes back negative when there *is* a syphilis infection. False negatives are more likely to occur when a person has an autoimmune disease (including HIV), is older and/or injects drugs.

As well as blood tests, if you have any lesions, they will be swabbed and tested.

As syphilis is a sexually transmitted infection, it is important to get tested for other STIs if you are diagnosed with syphilis. People with a syphilis diagnosis, especially gay and bisexual men, are more likely to have an HIV infection, so it is important to take an HIV test. If you take an HIV test and it is negative, you may wish to consider **PrEP** (an HIV prevention medication).

Treatment

Penicillin is an antibiotic used to treat syphilis. It is an injection administered in the bum. The type and number of penicillin doses will depend on the stage of syphilis.

Primary or secondary syphilis is usually treated with a single injection of penicillin. Being on HIV treatment and having an undetectable viral load may increase the likelihood of the treatment working.

After receiving penicillin, some people develop a high temperature and feel unwell within 12 hours of treatment. This may include a headache and aching muscles. This is called the Jarisch Herxheimer reaction (JHR). This only lasts for a few hours and gets better on its own. Sometimes taking paracetamol can help ease the reaction.

People who are allergic to penicillin are given a course of different antibiotic tablets. It is important you take the whole course. You may need to come back for a follow-up appointment more often if you're not able to be treated with penicillin.

You can be treated with a penicillin injection during pregnancy and despite possible reactions, treatment should not be delayed. Antibiotic tablets are not given during pregnancy as some do not effectively reach the baby and others pose a risk to the baby.

If you have latent or tertiary syphilis, you will be given a course of three, weekly injections of penicillin. Although tertiary syphilis can be treated, if you are already experiencing health problems as a result of damage from the syphilis, the treatment will not improve this.

To avoid infecting other people with syphilis, or being re-infected with the bacteria, it is important to avoid sex and skin to skin contact with any affected parts of the body until you have been told that the treatment has been successful. You will need to have a follow-up blood test a week after treatment to see if it has worked. Any sexual partners should also be tested and, if necessary, treated.

Having syphilis once gives no protection in future – you could catch it again.

To prevent reinfection, ensure that *both* you and your partner have been tested for syphilis. If one of you has been diagnosed and treated, but the other has never been tested, they could pass on undiagnosed syphilis. It is also best to have a sexual health screen before having sex without a condom with a new sexual partner.

NAM is a charity based in the United Kingdom. We work to change lives by sharing information about HIV & AIDS. We believe independent, clear and accurate information is vital in the fight against HIV & AIDS.

Our information is intended to support, rather than replace, consultation with a healthcare professional. Talk to your doctor or another member of your healthcare team for advice tailored to your situation.

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