

Sexual Health Information

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This fact sheet will give a brief overview of the main Sexually Transmitted Infections, (S.T.I.s), occurring in Australia, some of the symptoms of having an S.T.I. and the tests for detecting them. There are many infections it is possible to get from sexual contact sexual contact. If you have any concerns regarding possible signs or symptoms of an S.T.I. or feel you may have been exposed to an S.T.I. please contact your doctor or your nearest sexual health clinic. This article is to be used as a reference only.

There are a number of other STIs not discussed here. The links at the end of this article may offer further information on common STIs and their management. There are also phone numbers at the end of this article that may provide a person with further information and support.

A sexually transmitted infection, (S.T.I.), is any infection that is acquired through sexual contact. It can be caused by bacteria, a virus or a parasite. The sexual contact can be penetrative, (vaginal or anal), oral sex, masturbation, touching someone's genitals or skin to skin contact, depending on the type of S.T.I. involved. The term "signs and symptoms" means physical things a person may notice if they have an S.T.I., such as a discharge from their genitals, unusual bleeding, pain or discomfort. It is very important to remember an S.T.I.s can be present in a person without any signs or symptoms, therefore a person may not know they have an infection without having a test.

S.T.I.s affect all genders and sexualities. The infections a person could be exposed to depend on what genitals a person has and the type of sex that person has. S.T.I.s do not discriminate. They are bacteria, viruses and parasites that can be passed on during sexual contact.

They affect men and women, gay, straight bisexual or however a person identifies. They affect all races, religions, cultures, socioeconomic groups and education levels. People having any sort of sexual contact can be exposed to and infected by an S.T.I.

If a person has had reassignment surgery he or she is less likely to contract these bacterial infections in their genitals, due to the nature of many S.T.I.s targeting mucous membrane tissues. After reassignment surgery the tissue of the genitals may not be the same mucous membrane type tissue as was originally there, decreasing the risk to that part of the body. However as many S.T.I.s can be transmitted via oral or anal contact the bacteria can infect a person in these sites.

If a person is diagnosed with an S.T.I. it is also important to contact current and past sexual contacts to notify them they may have been exposed to an S.T.I. If a person is uncomfortable with doing this the clinician can assist. They will do this confidentially or there are a number of confidential and anonymous SMS services/ websites that can be used to contact partners.

It is very important that sexual contacts are notified to allow them to be tested and treated and avoid possible problems or complications from the infection. It is also important to know that being treated for these bacterial infections does not give a person immunity to getting it again. Therefore if a person has sex with an untreated partner again, or if they put themselves at risk again, they can be reinfected. The best way to prevent transmission of S.T.I.s is using condoms for penetrative sex, condoms or dental dams for oral sex and gloves for fingering. When using condoms, the condom needs to be on before there is any contact with the other person's genitals. This means not just for the actual penetration but before there is any touching or rubbing of another person's genitals.

Human Immunodeficiency Virus (H.I.V) and Acquired Immune Deficiency Syndrome (AIDS)

Human Immunodeficiency Virus (H.I.V.) is a virus which affects certain immune cells in the body. Acquired Immune Deficiency Syndrome (AIDS) is a group of infections and cancers which occurs as a result of a severely weakened immune system in people who are infected with H.I.V.

If a person is not taking medication to control an HIV infection AIDS can occur about ten years after a person becomes infected with H.I.V., or earlier if they have high levels of the virus in their blood. Taking antiretroviral (ARV) treatments can prevent AIDS in most people. A positive person taking ARV also has far less of a chance to pass HIV on to another person and being on ARV medication benefits the persons long term health in many other areas such as cardiac disease.

HIV is now considered a chronic medical condition, meaning an HIV positive person who takes their medication as directed and attends recommended medical appointments will live a long and healthy life.

Transmission:

A person with H.I.V. can pass on the virus to someone else by the exchange of body fluids such as blood, semen, vaginal fluids and breast milk. This can occur by vaginal or anal sexual intercourse, without a condom, sharing drug injecting equipment or from an infected mother to her baby during pregnancy, childbirth or breastfeeding. Although far less of a risk HIV has been transmitted in a few instances of receptive oral sex on a man.

H.I.V. has never been proven to be transmitted by kissing or cuddling, shaking hands, social contact, sharing knives and forks, cups or glasses, toilet seats or mosquitoes. H.I.V. is not transmitted in urine, faeces, saliva, sweat, tears or phlegm unless there is blood present.

Signs and Symptoms:

Some people may experience a severe cold or flu, swollen or sore glands and general malaise, (feeling generally tired and unwell), when infected with H.I.V. It is, however, important to note that many people do not know they have been infected with H.I.V.; they may have no signs or symptoms of it for many years. You cannot tell a person has HIV by looking at them.

Diagnosis

H.I.V. can be tested for with a blood test or the use of a point of care (rapid) test. In Australia there are 3 HIV point of care tests licensed by Therapeutic Goods Administration (TGA). There is one main test that is used by services which involves a finger prick blood test. The results of this test is available after 10 minutes. In Australia no HIV point of care test is available for sale over the counter or as a mail order.

The window period for HIV point of care test is the same as for blood tests which is 3 months. The term window period means the amount of time it may take after an exposure for HIV to show in a test.

Treatment

There is no cure for H.I.V. but management has greatly improved and there are many treatment options to prevent H.I.V. becoming AIDS and maintaining a person's health. An HIV positive person will need to take a tablet or tablets daily for the rest of their life. An HIV positive person with an "undetectable viral load" has a very small chance of passing on HIV to another person.

An undetectable viral load means that no HIV virus was detected by the laboratory in a person's blood test. This does not mean they are cured, more there is no active HIV in their system. Taking the prescribed HIV medication also benefits the HIV positive person as it maintains their overall health and leads to a long and healthy life.

Hormone Therapy and HIV Medication

An HIV positive transgender person taking hormone therapy may be concerned their HIV medication is interfering with their hormones, or vice versa. It is possible for some feminising hormones to alter the dose or interact with some HIV medications.

If you are HIV positive and taking hormones please discuss this with your HIV doctor and your doctor prescribing the hormones. (If they are not the same doctor). There are many options for HIV medication and being positive and taking HIV medication does not stop a person from being on hormones.

Please do not stop taking HIV medication if you are concerned about your hormones. Discuss your concerns with your doctor.

HIV PEP. (Post Exposure Prophylaxis)

Post-exposure prophylaxis (PEP) is a four week course of anti-HIV (known as antiretroviral) medication (tablets) which may prevent HIV infection.

If a person believes they have been exposed to HIV, PEP should be taken as soon as possible. It is advised they start taking PEP as soon as possible after a risk or exposure but they have up to 72 hours

to start the medication. PEP is unlikely to work if commenced it more than 72 hours (three days) after exposure to HIV.

What does 'risk' or 'exposure' to HIV mean?

Any action that allows HIV infected body fluids, such as blood, semen or vaginal fluids to enter into a person's bloodstream. A person may have been exposed to HIV if they:

- have had vaginal sex without a condom with a person who has HIV;
- have had anal sex without a condom with a person who has HIV; or
- shared injecting equipment with a person who has HIV.

What does taking PEP involve?

Taking PEP will normally involve a four week course of anti-HIV drugs. For PEP to be effective treatment needs to commence within 72 hours of an exposure to HIV.

Does PEP work?

It is believed taking PEP can prevent HIV; however the evidence is not conclusive. Taking PEP does not guarantee that a person won't become HIV positive. It is offered as a last resort. Safe sex and safe injecting are still the best way to avoid HIV.

Where to get PEP?

A person can be assessed for PEP at sexual health clinics, doctors (including some general practitioners) who specialise in HIV/AIDS. If the exposure or risk is after hours or on a weekend, rather than waiting for a sexual health service to be open on Monday a person can get PEP from any public hospital emergency departments (which are open 24 hours).

If you would like further information about PEP, including where to access it, or have other questions you would like answered you can call:

The New South Wales PEP hotline on 1800 737 669

How much does PEP cost?

- As with any prescription drug there is a cost involved, this is the current co-payment charge which is mandated by N.S.W. Health Policy PD2012_068

In taking PEP, what difficulties may a person encounter?

Taking PEP requires strict adherence to the dosing instructions. A person will need to take the drugs as directed by the prescribing doctor or clinician. Missing doses or not completing the four week course will reduce the chances of the treatment working.

The drugs have a number of potential side effects. While some people experience no side effects at all, most experience some mild to moderate side effects.

Side effects might include nausea, headaches and fatigue. The prescribing doctor or clinician will provide you with information on side effects. It is also recommended a person reads the drug company information that is provided with the drugs.

A person needs to monitor the side effects and seek medical assistance if you feel you can't cope with the side effects.

What happens once a person finishes PEP?

It is important once a person has finished the four week course that they return to the clinic or doctor. The clinician will want to do retesting for HIV at 6 weeks, 3 months and 6 months.

Remember PEP has not conclusively been proven to work and therefore follow-up is essential.

Does a person need to practise safe sex and safe injecting?

Yes. There is no conclusive evidence that PEP always works. There is also no evidence to suggest that if a person has another exposure to HIV while taking PEP they will be protected. Safe sex and safe injecting are still the best methods to protect a person from HIV.

Also a person should practice safe sex with their partners whilst taking PEP and until the follow up HIV test results are negative to ensure they don't pass on HIV to others if the PEP does not work.

Where can I get further information?

For further information on PEP go to the Australasian Society for HIV Medicine (ASHM) webpage which includes the NSW Health PEP Policy Directive, and other information on PEP such as guidelines, policies, research, training and news.

HIV PrEP (Pre Exposure Prophylaxis)

Information on PrEP, importing PrEP and the EPIC Trial

PrEP" stands for Pre-Exposure Prophylaxis, with "prophylaxis" meaning "to prevent or control the spread of an infection or disease." PrEP is a new HIV prevention method in which people who do not have HIV infection take a pill once a day to reduce their risk of becoming HIV infected. The pill is called Truvada and it contains two antiviral medicines that are also used to treat people who already have HIV infection. These are the same drugs used to suppress the virus in people living with HIV.

PrEP is not for everyone. It is recommended for people who are HIV-negative and at substantial and ongoing risk of HIV infection. The effectiveness of using HIV antiretroviral drugs as PrEP has been established by clinical trials conducted in gay men, heterosexual adults and injecting drug users. PrEP can be considered for people in these populations who are at high risk of acquiring HIV, such as gay and other homosexually active men, transgender women or those who are having multiple events of condom-less sex with an ongoing risk of acquiring HIV.

It is important to remember that no prevention strategy is 100%, and you should use PrEP along with other effective HIV prevention strategies. Speak to your clinician to see if PrEP is right for you.

A person wishing to commence PrEP has a number of options available to them. They can pay for PrEP medication prescribed by a doctor by having the prescription filled in an Australian pharmacy. They can self-import their PrEP medication from overseas using a prescription from a doctor in Australia or they may be eligible for a clinical trial currently running in New South Wales called EPIC.

Truvada medication is licensed for PrEP use in Australia by the TGA, however it is not available at a subsidised price through Australia's Pharmaceutical Benefits Scheme (PBS), which means paying for PrEP dispensed in Australia can be expensive. (Around \$10 000 a year).

Importing PrEP medication is an option for some people. They will need to see a doctor who prescribes the medication but the medication is ordered online from an overseas pharmacy and imported. There are a number of safe and legitimate overseas companies providing this service listed below. The cost of importing prEP medication reduces the cost to about \$1300.

EPIC-NSW is a study run by the Kirby Institute and funded by the NSW Government, in collaboration with a number of partners such as sexual health services and clinics. EPIC – NSW aims to assess the impact of the rapid expansion in access to PrEP amongst those at highest risk of acquiring HIV, in particular, if it will lead to a drop in new HIV infections.

The study will see 3,700 people at high risk of acquiring HIV enrolled in the study as efficiently as possible. EPIC-NSW is a criteria-based access program – which means eligibility for the study will be determined on the basis of HIV risk criteria. The aim is to rapidly enrol eligible people and follow them for up to two years while they take PrEP.

However a person accesses prEP medication they will need to have a number of tests before they start PrEP medication including an HIV test. They will also need to attend a service or doctor for ongoing testing and prescriptions. (Normally every 3 months).

For further information on PrEP contact:

In NSW, the community based organisations who can assist with information about PrEP, eligibility and steps to access PrEP are:

ACON 9206 2000 acon@acon.org.au

Positive Life 9206 2177 1800 245 677 (free call)

Importing PrEP:

From PrEP Access now

www.prepaccessnow.com.au

ACON recommendations for overseas supply:

AIDS Drugs Online approx. \$397/ three months

www.aidsdrugsonline.net

Chlamydia and Gonorrhoea

These are both bacterial infections.

Transmission:

Chlamydia and or gonorrhoea can be transmitted, (passed from one person to another), through penetrative sex, using toys and possibly on fingers. (These infections could be passed on from finger contact in a situation where someone has an infection and touches their own genitals and then someone else's). Gonorrhoea can be transmitted from oral sex, be it fellatio, cunnilingus or rimming.

Signs and Symptoms:

Possible signs or symptoms of these infections include discharge, (coloured or clear), from a penis or unusual discharge from a vagina, burning, stinging or difficulty urinating.

For a person with a vagina being penetrated there could be pain during sex or bleeding after sex or between periods, if a person still has periods. If a person has anal sex, signs of an infection can be discharge from their bottom, unusual pain during a bowel movement, or pain or discomfort in their rectum at other times.

It is always important to remember these infections can be present without any signs and without a person knowing. These infections are easily passed from one person to another. The presence of one S.T.I. increases the chances of passing on or contracting H.I.V.

Diagnosis:

Both of these infections are easily tested for. The tests performed depend on the type of sex a person has. Chlamydia and gonorrhoea can be tested for with a urine test or a self-collected swab.

The first part of the urine passed, (not a mid-stream urine), is collected. For chlamydia and gonorrhoea swabs may also be collected from the vagina, cervix and/or rectum and throat depending on what sexual contact a person has had. The swabs used resemble a cotton bud, only slightly larger. Having a swab collected is not painful but can be a little uncomfortable for some people. Some clinicians may allow a person to collect their own swabs while others prefer to do it themselves.

If a person has symptoms of either of these infections the clinician may collect a few other swabs for testing. If a person presents with a discharge from his or her genitals the clinician may look at a sample of this discharge under a microscope. This will depend on where a person goes for testing.

Treatment:

Both of these infections are easily treated with some antibiotics. For chlamydia, two tablets of an antibiotic called azithromycin taken at the same time are given or a longer course of an antibiotic called doxycycline may be given for 1-3 weeks. For gonorrhoea the treatment is a one-off injection of an antibiotic called ceftriaxone plus two tablets of azithromycin.

If there are complications from an infection more antibiotics may be prescribed. The treatment may also differ if a person has an allergy to certain antibiotics. The service providing the testing and treatment may ask a person to return for follow up testing at a later date to make sure the infection or infections have fully resolved.

Syphilis

Syphilis as another bacterial infection.

Transmission:

Syphilis can be passed on through vaginal, anal, oral sex and from a mother to her unborn child during pregnancy. The rates of syphilis have been steadily increasing in Australia for a number of years now.

Signs and Symptoms:

Syphilis is quite a complicated infection to explain. The most common symptoms in an early syphilis infection are an ulcer or ulcers on the genitals, in the anus or in the mouth. This ulcer is called a chancre. The ulcer is not painful. Another sign of syphilis is a rash on a person's chest or back, or the palms of their hands or soles of their feet.

As with most S.T.I.s a person may not know they have syphilis. If the ulcer is in a part of a person's body they cannot see and it is not painful, it is quite easy for them not to know they have it. A person may not develop a rash or be aware of any symptoms. The only way to really know is to have a test. Syphilis in the early stages of an infection is very easily passed on.

The infectious stage can last for up to 2 years. After 2 years a person is not usually infectious to others but if not treated, the infection can go on to cause serious health problems later in life. This bacterium can affect a person's heart, brain and nervous system. The effects of untreated syphilis on an unborn baby are very serious and can lead to birth abnormalities or death.

Diagnosis:

Syphilis is tested for with a blood test. If a person presents to a doctor or clinic with an ulcer a swab may be taken as well.

Treatment:

Syphilis is treated with penicillin injections, usually given in the buttocks. The number of injections needed is determined by how long a person has had the infection for. If a person is allergic to penicillin another antibiotic may be used. If there are already complications from having untreated syphilis for a long time a person may need further tests and different treatment.

Candida or Thrush

Thrush is a fungal condition called candida albicans. It is caused by overgrowth of the yeast candida albicans. The organism is often found in the body without causing any symptoms and is not harmful. It may become evident during sex; during pregnancy; during the use of antibiotics or other medication; or in diabetic people.

Transmission:

Although thrush is not usually acquired from sexual intercourse it can sometimes infect a sexual partner.

Signs and Symptoms:

The usual symptoms are itchiness of the genital area; soreness of the vagina; a white curdsh discharge from the vagina; and discomfort during intercourse and or pain when urinating.

Treatment:

Prescribed vaginal or oral medications are very effective treatments. These can be purchased over the counter at a pharmacy without a prescription. There are vaginal creams such as clotrimazole which is inserted into the vagina for 3-7 days, or a one off dose of a tablet called fluconazole may be taken. There are some over the counter combinations of the tablet and cream that can be used.

If a person is experiencing thrush that is reoccurring or not resolving with the standard treatment they should seek medical advice as a different sort of treatment may be required. Thrush that continues to not respond to standard treatment or reoccurs can be a sign of other things such as diabetes or HIV.

There is no medical evidence that supports the use of yogurt or probiotics if a person has thrush.

The following points may help to avoid an infection:

- Wear loose clothing as tight clothing promotes excessive sweating and makes it easier for the candida fungus to invade surfaces;
- wear cotton or silk underwear instead of polyester;
- avoid excess use of soap or oils on the genitals
- It is not advisable to have sex during a severe attack.
- Douching of the vagina is not recommended for any reason and the use of a vaginal douche can increase a person's chances of developing thrush.

Thrush causes swelling of the genitals and sexual stimulation will increase the swelling, bringing discomfort, while the natural lubrications produced are alkaline and may aggravate the problem.

Remember latex products such as condoms can be damaged by the use of antifungal creams.

Herpes Simplex Virus (HSV) or Herpes

The Herpes Simplex Virus (HSV) causes herpes, one of the most common infections in humans. There are two types of H.S.V. Type 1 is usually found around the mouth and is commonly known as a "cold sore" and Type 2 is usually found around the genital or anal area. Approximately one in eight adults carries the H.S.V.2 and the majority of those affected do not know it. This is because most people do not have symptoms or do not get the "classical" visible herpes blisters.

About 50 percent of genital episodes are now caused by HSV type 1.

Transmission:

H.S.V. is transmitted by close skin contact with someone who has the infection. This usually occurs during vaginal, anal or oral sex. Condoms do not remove the risk entirely as the condom may not cover the infected part or may not remain in place for the duration of the sexual activity.

Transmission can also occur if there is skin-to-skin contact without penetrative sex. Transmission occurring from individuals with obvious symptoms is well documented, but many people are unaware they are infected with H.S.V. because they have no symptoms, or very minor ones that may go unnoticed. Most herpes is transmitted from people who are shedding the virus in the absence of symptoms.

Once a person is infected with H.S.V., it travels along the nerves that are connected to the affected area of the skin and lies dormant in this nerve pathway. The virus can re-activate later and travel along the nerve to the skin surface and cause a recurrent episode.

Signs and Symptoms:

The first episode of genital herpes may cause symptoms such as fever, muscle aches, headaches and fatigue. Local symptoms on or near the genitals include the development of fluid filled blisters (vesicles), that break and cause genital ulcers. These may be painful and cause pain when passing urine.

The severity of the first episode, however, is extremely variable and in some people the symptoms are very mild or may be unnoticed. All people who suspect they are having their first episode of H.S.V. should seek immediate medical attention. It is important the diagnosis is confirmed.

Recurrent episodes are usually less severe and of a shorter duration. Some people may get a variety of symptoms before a recurrence occurs. This is called a "prodrome" where symptoms such as itchiness, numbing or tingling sensations occur at the skin site.

Recurrences occur when the virus inside the nerve cell is reactivated. For many people there does not seem to be a pattern to their recurrences while others notice that recurrences occur when they are premenstrual, tired, stressed, sunburnt or they consume excessive alcohol and other drugs.

Diagnosis:

Most of the tests for herpes involve taking a swab at the site where symptoms are felt. Some blood tests may also be available. It's important to specify the type of H.S.V. it is, to know how to manage it. Adjusting to a diagnosis can be difficult at first and support is available from your doctor, nurse or psychologist.

Treatment:

There is no cure for herpes. There is, however, a medication called "antivirals" that can help with symptoms. They are prescribed in two ways:

- Episodic treatment (a short course): to reduce the length and severity of a genital H.S.V. recurrence. This may be suitable for infrequent reoccurrences.
- Suppressive treatment (a long course): to reduce the frequency of reoccurrences. This may be suitable for people who have frequent reoccurrences.

Herpes in Pregnancy

H.S.V. is not transmitted by sperm, nor does it affect fertility. Recurrent episodes during a pregnancy very rarely affect the baby in the uterus. A first episode during pregnancy could, however, be serious and immediate attention is required, especially in late pregnancy. Male partners with genital herpes who have female partners who are pregnant should take precautions and discuss transmission prevention strategies with a doctor.

Women should advise their obstetrician or midwife that they have had genital herpes in case a recurrence is experienced at the time of childbirth. In this case she may be advised to have a caesarean section to avoid transmission of herpes to the baby. A woman may be prescribed a course of antiviral medication in the last trimester of pregnancy.

Managing Recurrences

Bathing in salt water and taking mild analgesia such as paracetamol may help with pain. During an initial outbreak or a severe recurrence people sometimes have trouble passing urine. Drinking water can help dilute urine, making it easier to urinate. Sitting in a tepid bath and urinating there may help. If recurrences are frequent or uncomfortable seek medical advice.

As with all infections discussed, condoms should be used as they may reduce the risk of transmission of herpes. It is advisable to avoid sexual contact during herpes recurrences from the time of prodromal symptoms (burning, tingling, itching sensation at or near the affected area) until the sores have completely healed.

Molluscum Contagiosum

Molluscum contagiosum is a viral infection of the skin.

Transmission:

Molluscum contagiosum is transmitted by close physical (skin to skin) contact. Sexual intercourse is not required to transmit the virus.

Signs and Symptoms:

It presents as multiple round, small, waxy lumps that have a dimple or core in the middle.

In sexually active adults, molluscum contagiosum are found mainly in the genital area but may affect other parts of the body (such as the abdomen or thighs).

Because of their appearance they are sometimes mistaken for warts or even pimples.

Treatment:

Molluscum contagiosum can be removed by freezing with Liquid Nitrogen. They used to be removed by using a needle to "de-roof" the core but this treatment is no longer recommended. Treatment may be slightly uncomfortable.

If molluscum contagiosum are not treated they will eventually clear themselves. This may, however, take between two weeks and two years and, if untreated, they may be transmitted to other people.

It may be advisable for sexual partners to see a doctor for a check-up if they have any unexplained lumps.

Hepatitis A

Hepatitis is inflammation of the liver caused by any of the hepatitis viruses.

Transmission:

Hepatitis A is passed from one person to another when faeces from an infected person are transferred to another person's mouth. This can occur during anal sex especially during anal/oral contact, such as rimming. Hepatitis A can also be from contaminated food or water (such as water supplies), contaminated with sewerage, used for drinking in some countries.

Signs and Symptoms:

The average time between exposure to the hepatitis A virus and developing symptoms is about twenty-eight days. Symptoms may begin suddenly or gradually. The most obvious sign of hepatitis is jaundice, when the eyes and/or the skin turn yellow, urine becomes darker and faeces is lighter in colour. Other common signs of hepatitis include fatigue, loss of appetite, nausea, vomiting, abdominal pain and fever.

These symptoms will resolve after a few weeks to several months. It is important at this time to avoid alcohol, paracetamol and recreational drugs.

Infected people can transmit the virus from two weeks before they develop symptoms until approximately one week after they develop jaundice, approximately three to four weeks in total. Following acute hepatitis A and recovery, people develop natural immunity. This means they cannot be infected with the hepatitis A virus again. It does not go on to cause possible lifelong infections like Hepatitis B or C.

Diagnosis:

Hepatitis A virus is tested for with a blood test.

Treatment:

There are vaccinations available for Hepatitis A. A blood test can determine if you have been vaccinated or are immune to Hepatitis A. Vaccinations for these viruses are made from an inactive form of the virus, which means a person cannot get hepatitis from the vaccination. If a person is not immune to either Hepatitis A or B viruses a combined vaccination is available if required. It is best to discuss the need for which type of vaccination required with your health practitioner.

Hepatitis B

Hepatitis B is a virus which can cause inflammation of the liver. It is more infectious sexually than H.I.V. and more common globally.

Transmission:

The Hepatitis B virus is transmitted by vaginal, anal or oral sex without a condom, sharing needles, syringes and other injecting equipment, by an infected woman to her child during birth, sharing toothbrushes, razors or personal items that may lead to the exchange of bodily secretions such as blood and saliva with a person infectious with the virus.

Signs and Symptoms:

Symptoms usually develop within two to six months after the exposure. Many adults will have no symptoms while others may experience a mild flu-like illness, nausea and vomiting, abdominal pain and jaundice (yellowing of the skin and whites of the eyes).

Most adults who acquire Hepatitis B will recover, and develop lifelong immunity. These people are no longer infectious. About five per cent of adults remain infectious for many years and are called "carriers" of Hepatitis B.

Acute Hepatitis B is occasionally so severe it can be life threatening. Long term Hepatitis B virus carriers may suffer chronic hepatitis which may predispose to cirrhosis (scarring of the liver), liver failure and cancer of the liver.

Diagnosis:

Hepatitis B virus is tested for with a blood test.

Treatment:

There are vaccinations available for Hepatitis B. A blood test can determine if you have been vaccinated or are immune to Hepatitis B. Vaccinations for these viruses are made from an inactive form of the virus, which means a person cannot get hepatitis from the vaccination. If a person is not immune to either Hepatitis A or B viruses a combined vaccination is available if required. It is best to discuss the need for which type of vaccination required with your health practitioner.

Hepatitis C

Hepatitis C is not classed as a sexually transmitted infection but there have been a number of documented cases of Hepatitis B being associated with sexual activity. This has been seen mostly in the men who have sex with men community, particularly those who are HIV positive.

Hepatitis C is a virus that may go on to damage your liver. There are 6 major types (genotypes) of hepatitis C. the most common types in Australia are types 1 and 3. About 1 in 4 people infected with Hepatitis C will go on to clear it naturally.

Transmission:

Hepatitis C is transmitted by blood to blood contact. It is not transmitted in other body fluids unless blood is present in these. There have been reported cases of Hepatitis C being transmitted through sexual contact, however these have usually been in HIV positive gay men or when blood to blood contact has occurred during sex, (such as sex during menstruation or "rough" sex where bleeding has occurred and cuts or abrasions are present on the other partner). Some "kink" or S&M practices, such as cutting or needle work that cause bleeding increase the chance of Hepatitis C being transmitted. Sharing needles and any kind of injecting equipment for injecting drug use is the biggest risk for transmission of Hepatitis C.

Signs and Symptoms:

Hepatitis C infection can have no symptoms at all for years. Some people may experience symptoms of acute hepatitis infection such as dark urine, abdominal pain, lethargy, (feeling very tired) and nausea. Untreated hepatitis C can go on to cause chronic permanent liver damage and in some cases liver cancer.

Diagnosis:

Hepatitis C is tested for with a blood test. The window period (amount of time needed to be certain a person has not been infected) is six months.

Treatment:

There are effective treatments for most types of Hepatitis C. The latest type of treatment for Hepatitis C is with oral medications called direct acting agents. These target the Hepatitis virus directly and are very effective. (90-95% successful treatment rates for the common types of Hepatitis). A person who is HIV and Hepatitis c positive can now be very successfully treated with these tablets also.

If a person has any concerns or questions contact the Hepatitis C Council of N.S.W. or your nearest sexual health clinic.

There are no vaccinations for Hepatitis C therefore prevention is best. If a person is involved with any sexual practices that may involve blood, gloves should be used. Do not share or re-use any sharp or potentially contaminated equipment. If a person injects drugs, either for recreational use or therapeutic (e.g. injecting hormones), do not share any equipment, needles, tourniquets or even swabs.

Being successfully treated and cured of Hepatitis c does not prevent a person from becoming reinfected so all harm reduction and transmission strategies still need to be used by a person who has cleared or been treated for Hepatitis C.

Ano-Genital Warts or HPV (Human Papilloma Virus)

Ano-genital warts are caused by Human Papilloma Virus (H.P.V.) infection. There are over 150 different strains of H.P.V. affecting various parts of the body. Specific strains of the Human Papilloma Virus affect the genital skin. Some types of the ano-genital wart virus have been associated with abnormal cell changes on the cervix, vulva, penis or anus. Only a few of these virus strains, however, are strongly associated with early signs of cancerous cell changes.

H.P.V. is one of the most common sexually transmitted infections and it is estimated that 80% or more of the sexually active population is infected by the virus but only 1% of infected people develop warts (i.e. will have a visible wart or warts). Therefore most people do not know that they are infected by the virus.

Transmission:

H.P.V. infection is spread by genital skin to genital skin contact with another person. It is most likely to be transmitted when visible warts or subclinical infection is present. Because condoms only cover the penis, other areas, such as the groin, testes and areas surrounding the vagina many not be protected. H.P.V. may also be spread on sex toys or potentially even from fingers if they have come into contact with one person's genitals and then someone else's.

Signs and Symptoms:

H.P.V. infection presents in the following ways:

- Visible warts which can be found anywhere on the genital or anal area;
- Sub-clinical infection, which is where no warts are visible but microscopic changes show that the virus is present (this is usually found on a Pap smear or biopsy); or

- Latent infection, where the virus is only detectable using laboratory techniques reserved for research purposes. Most people infected with H.P.V. have latent infection.

It is also important to point out that having anal warts does not mean that someone has had anal sex. Also please note that warts on other parts of the body (hands etc.), cannot spread to the genitals. Ano-genital warts only spread to this type of skin.

Treatment:

Treatments can remove the warts or the infected cells but they will not get rid of the virus from the skin. A person's immune system will eventually clear the virus. Most warts can be treated by applying:

- Freezing agents such as liquid nitrogen;
- Chemical based solutions/creams such as Podophyllotoxin; or
- Immune boosting based creams such as Imiquimod

The doctor or nurse will discuss which treatment is most suitable, depending on the number, the size and location of the warts. Treatment is usually not painful but can be uncomfortable (this may vary from person to person) and does not result in scarring.

It is possible that recurrences of ano-genital warts may occur after treatment has completed. For this reason it is sufficient to examine the anal and genital area at least once a month. If new warts develop it is easier to treat them early when they are smaller.

Does HPV Cause Cancer?

Specific strains of the H.P.V. have been associated with abnormal cell changes on the cervix, vulva, penis or anus. Only a few of these virus strains, however, are strongly associated with early signs of cancerous cell changes. The risk is increased by other factors, such as smoking.

A vaccination against cervical cancer is vaccinating against the main types of ano-genital warts that can cause cellular changes leading to cervical cancer. This vaccination also offers protection against vulval and anal cancers caused by these strains of the wart virus. In Australia the vaccination is now offered to both male and female children as part of the routine vaccination schedule. Once a person has had a few sexual partners or is over the age of 25 the benefits of the vaccination are debatable as that person may have already been exposed to a number of the strains of HPV the vaccination is against.

Pubic Lice

Pubic lice (also known as "crabs") are parasitic insects notorious for infesting human genitals. The species may also live on other areas with hair, including the eyelashes. They feed exclusively on blood.

Transmission:

Pubic lice usually infect a new host only by close contact between individuals, usually through sexual intercourse. Parent-to-child infestations are more likely to occur through routes of shared towels, clothing, beds or closets. Adults are more frequently infested than children. As with most sexually transmitted pathogens, they can only survive a short time away from the warmth and humidity of the human body.

Pubic lice are primarily spread through body contact or sexual contact. Therefore, all partners with whom the patient has had sexual contact with in the previous 30 days should be evaluated and

treated and sexual contact should be avoided until all partners have successfully completed treatment and are thought to be cured.

Signs and Symptoms:

The main symptom is itching, usually in the pubic-hair area, resulting from hypersensitivity to louse saliva, which can become stronger over two or more weeks following initial infestation. In some infestations, a characteristic grey-blue or slate coloration appears (maculae caeruleae) at the feeding site, which may last for days.

On examination of hair, lice or louse eggs can be visible clinging to hair follicles.

Diagnosis:

A pubic louse infestation is usually diagnosed by carefully examining pubic hair for nits, nymphs, and adult lice. Lice and nits can be removed either with forceps or by cutting the infested hair with scissors (with the exception of an infestation of the eye area). A magnifying glass or a microscope can be used for the exact identification. If lice are detected in one family member, the entire family needs to be checked and only those who are infested with living lice should be treated.

Treatment:

Crab lice can be treated with Permethrin 1% cream rinse and pyrethrins. They can be used for this purpose and are the drugs of choice for pregnant or lactating women. These agents should be applied to the affected areas and washed off after 10 minutes. Shaving off or grooming any hair in the affected areas with a fine-toothed comb is necessary to ensure full removal of the dead lice and nits. A second treatment after 10 days is recommended. It is also crucial to make sure that all the bed sheets are changed. The sheets used before the first application of the treatment must be put away in a plastic bag, without air and well shut. They should be left alone for 15 days before washing to avoid the reproduction and survival of lice eggs that may have been left on the sheets and lead to reinfestation.

Pubic lice on the eyelashes can be treated with a permethrin formulation by applying the solution to the infested hair with an applicator.

For More Information: on STIs

STIs and Treatment

New South Wales STI Prevention Unit (Facts sheets on STIs available in other languages than English)

<http://stipu.nsw.gov.au/public-sector-resources/sti-fact-sheets>

Australian STI Treatment Guidelines

<http://www.sti.guidelines.org.au/>

Phone lines for information on HIV or STIs:

The Sexual Health Infolink: 1800 451 624

The HIV Information line: 1800 451 600

The NSW PEP Hotline: 1800 737 669