

Sex, drugs and rock & roll: Safe sex and STIs

Catriona Ooi

Sexually transmitted infections (STIs) are usually not the first thing on our mind when we start getting intimate with someone. In fact, STIs are often not considered at all, which may partly explain why they are so common. Although studies indicate that condom use is increasing, unfortunately, so are rates of some STIs.^{1,2}

So where are we now?

The World Health Organization (WHO) estimates that there are more than 340 million new cases of syphilis, chlamydia, gonorrhoea and trichomonas every year (and these four STIs are by no means the only ones that affect us). On top of this, there are millions of new cases of HIV, genital herpes virus, wart virus and hepatitis B virus annually on the global scale.³ Closer to home, the Western Pacific region contributes significantly, in 2005 adding 46.2 million new cases of chlamydia and nearly 27 million new cases of gonorrhoea. In fact, of all the global regions, the outright leader with the greatest number of curable bacterial STIs was the Asia-Pacific region.⁴

But, it is not all bad news. While some STIs are on the rise, HIV is a different story. Most experts believe that the HIV epidemic peaked in the late 1990s and since then has been on the decrease. Worldwide, numbers of *new* cases of HIV are slowly declining. Better treatment, increasing treatment availability and

improving access to health care mean people with HIV are living longer, healthier lives. A reduction in HIV/AIDS related deaths means a greater surviving number of HIV positive people, despite a decline in new cases. At last estimate there were 34 million HIV positive people worldwide; almost 23 million living in Africa and less than 1.5 million residing in the Western Pacific region.⁵

What is sex?^{6,7,8,9,10}

An easy question? Not so. Having sex, making love, rogering, screwing, hooking up, and so on, can mean different things to different people. Research shows that interpretations of 'sex' can vary greatly depending on factors like ethnic background, nationality, gender, age and sexuality.

While over 99% of Australian and American university students agree that penile-vaginal intercourse is 'sex', 11% of 18- to 96-year-old Americans believed that sex had not happened unless the male ejaculated. Does anal sex intercourse count? Not according to 10% of Australians and 25% of Americans. Curiously, students view oral sex differently to the wider population. Only 40% of students in the United States and 56% in Australia believe oral intercourse is sex, compared with 70% of Americans and 72% of Australians overall. Sexual behaviours can also be considered 'sex' — that is, genital touching (13.9–48.1%), deep kissing (2–6.4%) and contact with breast/nipples (3–7%). Sex may be defined according to acceptability. One study found that for those in a long-term relationship, sexual behaviors with a casual partner (outside the relationship) were less likely to be defined as sex. How convenient!

The Australian story

Who are we?

A national telephone survey conducted in the early 2000s collected information of the sexual lives, experiences, attitudes and practices of nearly 20,000 Australians aged from 16 to 59

years, with sometimes surprising results. It appears we are a fairly conservative bunch, although with time we have slowly loosened up. In the last 60 years, the average age of first sex has decreased from 19 to 16 years, oral sex is becoming more common, and contraceptive use has risen from less than 30% in the 1950s to over 90% in the 2000s.¹¹ Still, over 97% of Australian adults identify as heterosexual, with less than 9% of women and less than 6% of men reporting any previous homosexual sexual experience.^{12,13} On average, heterosexual couples had sex 1.8 times per week and reported sex as pleasurable and emotionally satisfying.¹⁴ Most of us are OK with premarital sex; however, despite most Australians disapproving of extramarital encounters, nearly 5% of men and 3% of women had partners outside of their regular relationship in the previous 12 months.^{15,16}

Interestingly, one in six Australian men had ever paid for sex. While masturbation and pornography are common, only about 11% of adults use sex toys and less than 5% of Australians disclosed 'other' practices such as bondage and discipline, role play, or phone sex.¹⁷

When it comes to matters of sexual health, 20% of men and 17% of women report they had ever been diagnosed with an STI or blood-borne virus (BBV) such as HIV, or hepatitis B/C. Despite this, knowledge of the most common STIs is poor; which may, in some way, account for inconsistent condom use with sexual partners.

STIs

As the name suggests, STIs are transmitted sexually, and this includes vaginal, anal and oral sex. Viruses such as herpes and human papillomavirus (HPV or genital wart virus) may be passed from close genital to genital rubbing. HIV is transmitted from exchange of infected body fluids including semen and blood. Here we look at the common STIs affecting Australians today.

Chlamydia

Chlamydia is common and curable. In 2011 there were nearly 81,000 cases nationally, representing an increase of 300% over 10 years.¹⁸ In the vast majority of cases in both men and women there are no signs or symptoms of infection, and the person infected is unaware. Not realising there is a 'problem' often means that the infected person is not tested, not treated, and unwittingly passes it on to others. It is no surprise that this STI occurs most frequently in people who have changed sexual partners and do not use condoms consistently. In Australia, the greatest burden of chlamydia infection (over 80% of diagnoses) occurred in heterosexuals under 30. For those who do experience symptoms (about 20%), in the early stages chlamydia can cause pain with urination and penile discharge in men, vaginal discharge and bleeding after sex in women. If left untreated, complications such as pelvic inflammatory disease (where the infection occurs in the uterus and fallopian tubes) and epididymo-orchitis (the infection occurs in the testicular structures) may eventuate. Long-term untreated chlamydia, whether there are symptoms or not, may result in scarring of the fallopian tubes and cause infertility and ectopic pregnancy. While most infection is sexually transmitted, chlamydia may be passed from mother to child during delivery as the baby passes through the birth canal. This too has significant implications, potentially infecting the baby's eyes and lungs.

Gonorrhoea

Historically known as 'the clap' or 'VD', gonorrhoea rates have increased steadily over the last 10 years. Although rates are slowly rising in females and heterosexual males, gonorrhoea is most commonly diagnosed in men who have sex with men (MSM).¹⁹ Penile infections with gonorrhoea typically produce discharge and pain when urinating, described flamboyantly as 'pissing razor blades'. However, like chlamydia, female infection usually remains silent, producing symptoms only once complications such as pelvic

inflammatory disease, tubal scarring and ectopic pregnancy have occurred. Other sites may also be infected; both rectal and pharyngeal (throat) infections are usually silent.

Genital herpes

Throughout the years I have worked in sexual health, there is nothing associated with greater stigma and causes more emotional upheaval than a diagnosis of genital herpes. I put this down to the fact that herpes is incurable (but treatable!) and historically associated with the seedier side of society and 'loose morals'. Most people are unaware of how common herpes simplex virus infection actually is.

Genital herpes is a herpes simplex virus (HSV) infection on the genitals. This can be caused by either HSV type 1 or HSV type 2. These infections are extremely similar and almost impossible to tell apart without lab testing. The main difference between them is that HSV1 usually infects the mouth, causing 'cold sores', and HSV2 prefers the genitals; despite this, BOTH infect the genital sites. Studies have shown that 76% of Australians are positive for HSV1 and 12% positive for HSV2, and it is assumed that the majority of HSV1 infections are oral.²⁰ However, with changing sexual practices and poor understanding of herpes, over the past 20 years we have seen a rise in genital herpes caused by HSV1, transmitted from mouth to genitals during oral sex.

Herpes can be tricky to diagnose as only about 20% of people infected get typical symptoms of blisters and sores. About 60% experience vague symptoms such as redness, itch and burning. The remaining 20% have no symptoms at all and carry the virus without knowing.

Once infected with herpes, the virus lives in the nerves of the infected skin. Most of the time the infection is inactive or asleep, but from time to time it wakes and that is when people may notice symptoms. This episode of activity usually lasts less than a week before the virus becomes inactive again. The symptoms most

commonly occur in the area of initial infection, and the time between episodes can vary ranging from months to years. Over time, the episodes become shorter, milder and less frequent. Herpes is most likely to be transmitted during an active phase, however it is possible to transmit the virus at any time.

The best test for diagnosing genital herpes is a swab taken directly from the area affected. When signs of herpes are present the swab test is very accurate. Swabs can differentiate between HSV 1 and 2 (and other herpes viruses like herpes zoster, which can look the same) and are site specific (i.e. confirm HSV is present in a particular area). Blood tests are less useful, and vary in reliability. The main disadvantage of herpes blood tests is that they do not tell you where the infection is, and whether certain symptoms are due to herpes. As most Australians carry HSV1 (unknowingly) a positive HSV1 blood test is of limited use. Is the test result reliable? If it is, where is the infection — mouth? genitals? If I do not get symptoms, what does this result mean to me? There are a handful of situations where a blood test may be useful. If you think you have herpes, the best person to talk to is your doctor.

Genital herpes is not curable and there is no vaccine currently available but there is treatment. The treatments can be taken to treat outbreaks or daily treatment taken to prevent outbreaks.

Genital warts

Genital warts are painless genital lumps caused by the human papillomavirus (HPV). There are over 100 HPV types, with two types responsible for 90% of genital warts. Infection with HPV is common. By the age of 50 years up to 80% of people have evidence of past or present infection; but only about 1% grow warts.²¹ HPV infection is transient: this means that people get infected, carry the virus for about 12 months, and then the virus is cleared by the immune system. It is understandable then that most HPV infections pass unnoticed.

The HPV types that cause genital warts are ‘low risk’ — they cause unsightly lesions but are not associated with cancer. As there is no increase in risk of cervical cancer, having genital warts does not indicate a need for more frequent pap smears.

Genital wart treatment is usually for cosmetic reasons. In rare circumstances, the warts can grow to a size that makes movement or giving birth difficult, or last longer than expected. This is more likely to occur in people who are immunosuppressed — when they have a condition that has seriously affected the strength or functioning of the immune system, and this may include cancer, HIV, or an organ transplant. Pregnant women may notice warts during their pregnancy — this can be a pre-existing infection. Because the body’s immune system is working harder during pregnancy, HPV already in the skin may be expressed, that is, the immune system is unable to control it with other competing demands.

HPV ‘hides’ from the immune system and most treatment aims to ‘alert’ the immune system that the virus is there. There are many different genital wart treatments available, ranging from self-applied paints and creams to clinician-applied freezing, laser or surgical removal. The choice of treatment depends largely on the patient and the site of the warts. The wart is merely an expression of the virus so unfortunately, getting rid of the wart does not mean the virus is eradicated; and the wart may recur.

The good news is that there are HPV vaccinations available that can protect against high-risk HPV types (associated with cancer) and the low-risk types, which cause genital warts. Unfortunately, the vaccination is most effective before you are exposed to the virus, that is, before you ever have sex. In Australia, the introduction of the HPV vaccine has already had a positive impact. In women 21 years or younger, the rates of genital warts decreased from 12% in 2007 to 2% in 2011.²²

So what else can I do? Smoking is associated with viral persistence — it can take longer for the immune system to clear

it. Needless to say, there are other health benefits of smoking cessation.²³ Condoms are partially protective and it is estimated that they are about 70% effective in preventing HPV transmission.²⁴ Also, by limiting the number of sexual partners you have you will decrease your risk of infection. As HPV is transmitted during sexual contact and risk increases with the number of sexual partners, limiting that number may decrease the transmission risk.

Syphilis

Syphilis has dogged mankind for centuries. Having risen to epidemic proportions in the 15th century, syphilis ravaged Europe as the great pox. Largely spread by travellers and marauding forces and later boosted by the mass troop movements of World War I, rates of syphilis only significantly decreased after the World War II and the discovery of penicillin. This trend continued throughout the 1980s and early 1990s; however, in the last 10–15 years the western world has witnessed significant increases. In Australia today, syphilis rates are greatest in MSM and in heterosexuals who have acquired the infection overseas.

The majority of people with syphilis are unaware they are infected, as the symptoms can occur fleetingly or not at all. If symptoms are apparent, they will vary depending on how long someone has been infected. Up to three months after initial infection, a sore or ulcer may develop at the site of contact. This is usually somewhere on the genitals. The ulcer is typically painless and firm and will heal without treatment after a few weeks. As it is painless, it may pass unnoticed. This is the primary stage. Symptoms of the secondary stage, up to six months after infection, are the result of the infection spreading to the bloodstream and travelling around the body. At this point, the infected person may or may not feel unwell, experience a body rash, headaches, hair loss, and swollen glands. Symptoms will improve without treatment. During the first two stages the infected person is very infectious. Following the secondary stage, the infection becomes

dormant and the patient has no indication they are infected. The majority of people will remain at this stage for life, but up to one third of people will progress to the third stage — tertiary syphilis. At this point the infection has invaded the brain and nervous system, cardiovascular system and bones. If tertiary syphilis develops, it may become active in these areas and have devastating effects if untreated including disability and death.

HIV

HIV is a virus that weakens the body's natural defences — its immune system. In the beginning, the immune system fights the virus and is able to keep it in check; however, over time, it is worn down and becomes unable to cope. HIV continually multiplies and replicates in the body, and directly infects individual immune cells, killing them off and rendering them unable to work effectively.

Every day we come into contact with bacteria, viruses and other organisms that our immune systems are easily able to resist. With the weakening of these defences due to HIV, these everyday bugs in the environment can make us sick — this stage of HIV infection is known as AIDS, or acquired immunodeficiency syndrome.

HIV medication slows the ongoing multiplication of the virus, meaning that less immune cells become infected, therefore leaving a greater number of functional 'soldiers'. With this 'preservation' of immune function, the individual is able to enjoy good, robust health. In a national survey of HIV positive Australians, nearly three quarters rated their health as good or excellent and two thirds rated their general wellbeing as good or excellent.²⁵

At the end of 2012 in Australia, there were nearly 25,000 people living with HIV. Here in Australia, HIV continues to be mostly transmitted via sexual contact between men. Although the global epidemic seems to be coming under control, the rates in Australia have crept up over the last few years; however, the actual numbers are small.

HIV is harder to catch than most people think. A study collating international research results reported that in high income countries (like Australia) the average risk of HIV transmission from females to males was 0.04% per sex act (vaginal sex with someone who is known to be HIV positive), and 0.08% from males to females.²⁶ Anal sex is riskier. The Americans estimated the risk of acquiring HIV from receptive anal sex between men (the person whose rectum is being penetrated, also known as the 'bottom' partner, as in 'top and bottom') was 0.82% per act.²⁷ Certain factors can increase the risk — for example, the presence of other STIs, broken skin and very rough sex. Other factors decrease the risk — for example, condom use and the HIV positive person taking treatment. Not all body fluids are dangerous. Saliva, sweat, urine and tears are not infectious so there is no risk from hugging, kissing, sharing cups and utensils, toilet seats and so on.

So, how do you know when you are infected? The only way is to have a test. HIV positive people can look and feel well so may remain unaware of the infection until the immune system is no longer able to function. Some (not all) may experience symptoms as soon as a few weeks after being infected. This is similar to the flu-headaches, aches and pains, tiredness and rash, and will improve spontaneously. Months to years later, as the immune function declines, other symptoms begin to crop up — these can be vague and can be associated many other conditions — for example, fatigue, swollen glands, diarrhoea, and weight loss. Eventually, when the damage to the immune system reaches a certain point, AIDS occurs, leading to serious illness and death. Without treatment the average time from becoming infected to death is about 10 years.

Testing is widely available in Australia. It is accurate and reliably detects an infection up to six weeks old. Most recently, we have 'rapid' HIV testing. This is testing 'on the spot', which means you no longer have to wait for the test to be processed in a lab.

There are several rapid tests that are being considered in Australia, including a 20-minute pinprick test, a 10-minute pinprick test and a saliva test.

What is a sexual health screen?

A sexual health screen is STI testing when there are no signs or symptoms of infection. Otherwise known as a check-up, a screen is a batch of tests to make sure you are not unwittingly carrying an infection.

Where to get a test

In Australia there are several options for testing. Any general practitioner can perform tests for STIs. Depending on where you live and what your risk is, you may also have access to a sexual health clinic. These are free and confidential services that specialise in testing, treatment, management and prevention of STIs and HIV. Some family planning and youth services may also offer screening.

The risk assessment

To assess your individual risk of STI and what tests you need you may be asked some personal and embarrassing questions; for example: ‘When did you last have sex? Was this a casual or regular partner? Did you have vaginal sex, anal sex or oral sex? Did you use a condom? Did you have sex with a man, a woman or both?’ You are free to give as much or as little information as you feel comfortable. It is important to be as honest as you can, as the more information you give, the more tailored the testing can be. This can be embarrassing. If you feel nervous or unsure, write down your questions beforehand so you do not forget anything. Find a clinician you feel comfortable with. It may help to go with a friend, but remember you may not feel free to discuss your personal details in front of them. You are not obliged to give any information that you do not feel happy to give — remember, it is better to not answer than to give misleading information.

The clinician you see is bound by confidentiality; however, if you are concerned, ask. This interview should be conducted privately, and be non-judgemental.

The examination

Male examination involves removing all clothes from the waist to the knees. The clinician will inspect the skin of the pubic area, penis (shaft, head and under foreskin) and scrotum looking for lice, sores, lumps and rashes. The eye of the penis is examined to rule out discharge. The scrotum is examined and the testes felt.

The female examination will involve inspection of the pubic area and vulva (lips) to rule out lice, sores, lumps and rashes. A speculum may be inserted into the vagina. This is also done for a pap smear. With the speculum inside the vagina the cervix (opening of the womb) can be visualised and checked for ulceration, redness and lumps. Any vaginal discharge can also be seen. A swab from the vagina or the cervical opening may be collected. The anal area may also be inspected for skin lesions, rash, redness, lumps and ulcers.

If you do not have any symptoms it may not be necessary to have an examination. This is standard practice and all testing can be conducted regardless. Urine tests, self-collected vaginal and anal swabs are accurate and sensitive.

Testing

STI screening is directed towards the risk of practices involved and the rates of particular STIs in the community. Different tests may be conducted depending on your sexual activity. Men who have sex with men may be offered throat swabs for gonorrhoea, anal swabs for chlamydia and gonorrhoea and a urine test for chlamydia. Appropriate blood tests include HIV, hepatitis A, hepatitis B, and syphilis. If you are a heterosexually active man a simple urine test for chlamydia and bloods collected for HIV, hepatitis B and syphilis is adequate. A sexual health screen for women typically involves a

urine test (or cervical swab or vaginal swab) for chlamydia and gonorrhoea and blood tests for HIV, hepatitis B and syphilis. If you have genital symptoms or signs, tests may vary and you should be examined.

What happens next?

The clinician should tell you the infections you are tested for. Warts and genital herpes are not routinely tested for in a sexual health screen. If you have particular concerns about herpes let your doctor know. Genital warts are diagnosed by examination only. Results for tests can take up to a week, so discuss with your doctor how you will get these.

What if all the results are negative?

Most people now breathe a sigh of relief and continue on their merry way, but there are a few important things to remember. All tests have a 'window period'. This is the time between becoming infected and when the infection is detectable and the test becomes positive. During the window period, the person is infected but the test is (falsely) negative. Depending on the particular infection, the person may be infectious. Different infections have different window periods. For example, the window period for HIV and syphilis is six weeks. For hepatitis the window period can stretch as far as six months (although usually up to three months). For gonorrhoea and chlamydia, most experts will recommend testing one week after risk.

Having negative hepatitis A or B tests offers the opportunity for vaccination. These are safe and long lasting. All non-immune individuals should consider being vaccinated for these viruses.

What if I have a positive result?

Most STIs are curable with antibiotics; however, it may also be necessary for your sexual partners to be tested and treated. For some infections, like chlamydia and gonorrhoea, it is standard practice for partners to be treated regardless of their test results.

The reason is that if they are also positive, then their partners will also require treatment and so on. This is called ‘contact tracing’ or ‘partner notification’. Contact tracing can be done by the person with the infection, by the clinician or by a third party. Telling partners can be daunting, and for those who do not feel comfortable contacting sexual partners directly, there are websites designed to send anonymous emails, texts or SMSs to sexual contacts informing them of their risk and advising them to seek treatment and testing (see Resources at the end of this chapter). If contact tracing is done by the clinician or third party, it is done confidentially, and the person contacted is not informed of the identity of the infected person.

Protecting yourself

The most reliable way to avoid any STIs is to stop having sex. That means no vaginal intercourse, anal intercourse, oral intercourse or genital rubbing. Understandably, this is not a popular option. So how do you make sex safer for yourself and for your partner? Here are a few tips to consider

1. Use condoms

It is a well-known fact, condoms are protective against STIs. Why? Because they form a physical barrier between skin and prevent the exchange of body fluids. Infections are unable to penetrate the condom and this means that bacteria, viruses and other organisms found in body fluids and in the skin do not come into contact with the other person. It is important to remember that the condom does *not* cover all the skin in the genital area so condoms are not 100% protective from transmission of HPV and HSV, as these viruses may infect areas of skin outside of the condom-covered area. Similarly, for infections in body fluids, condoms must be used from the start of contact as pre-ejaculatory fluids (precum) may contain STIs and may be infectious. Using condoms for oral sex will protect you from

getting an STI and passing one on to someone else (genital to mouth and vice versa); for example, gonorrhea.

And condom size is important. Too big and the condom may slip, too small and breaks are more likely.

2. Don't scrimp on lube with anal sex, and use the right one!

Studies have shown that lubricants used correctly can decrease condom slips and breaks particularly with anal sex. Conversely, excess lubricant use may increase condom slippage in vaginal sex. Not all lubes are created equal. Water-based lubes are the ones to choose with condoms, as oil-based lubes have been shown to be associated with condom breakages. Remember, adequate lubrication will decrease the risk of traumatic skin damage during sex; important as intact skin is an important barrier against infection.

3. Keep your genital skin healthy

For healthy genitals, see boxed tips on the following page.

4. Get tested

Many STIs have no signs or symptoms. This means that people are unaware they are infected, do not seek treatment for themselves and can unwittingly pass them onto others. Without prompt diagnosis and treatment, many infections cause serious complications that will have irreversible effects. Do not wait for something to go wrong: have a test, and get diagnosed early before complications occur or the infection is passed onto others.

5. Have fewer sexual partners

The more sexual partners you have the more likely it is that you will catch a STI. It makes sense. Increased partner numbers increases the chance that you will have sex with someone who is carrying an infection. Studies show that people with STIs, including HIV, have had more sexual partners on average than those who are not infected. So how many partners is too many? The answer is it depends. Factors such as the pattern of sex — that is, casual

Tips For Healthy Genitals

Broken skin on the genital area will increase the risk of catching STIs. Sores, cracks and cuts make it easier for infections to be transmitted, offering a doorway into the body. Breaches in the skin may appear as dryness, itch, irritation and redness. They may be easily seen or too small for the human eye. Here are a few tips to help maintain health genitals.

1. Avoid irritants

Excessive washing, soap, creams, perfumes and bath products can dry and irritate the skin. For sensitive people, scented toilet paper, washing detergents and disinfectants may also cause irritation. Oils (e.g. bath oil, tea tree oil, artificial lubricants) should not be used in the genital area. Pharmacy genital creams and gels are unnecessary and should be avoided. If you are unsure, discuss products with your doctor prior to use.

2. Decrease trauma

Friction and rubbing can cause skin damage and result in tiny cuts and nicks in the skin. It is advisable to avoid skin trauma to the genital area. Rough sex, lots of sex, tight clothing, shaving, waxing and scratching are the major culprits.

3. Ladies, don't douche!

The vagina has its own ecosystem, a delicate balance of organisms that are protective against infections. This can be upset by douching (washing inside the vagina) or by leaving foreign bodies for extended periods of time (e.g. tampons, bits of condom). Upsetting the natural vaginal environment may increase the risk of STI infection and result in bacterial vaginosis (see 'Discharge' in 'Help! I have a ... (non-sexually transmitted condition)'). Without treatment, the natural ecosystem will reassert itself eventually, but antibiotics will help this occur faster. Remember ladies, the vagina is self-cleaning, and there is no need to 'give it a hand'.

4. Exclude infection

Genital skin symptoms may be the result of an STI. Herpes classically presents with ulcers but may only cause redness and itch. Pubic lice and genital scabies may cause irritation and itch. Irritation from excess moisture on the genitals may be from vaginal or penile discharge caused by chlamydia or gonorrhoea.

5. Do you have a skin condition? Treat it!

The genital area is not exempt from general skin conditions such as eczema and psoriasis and, like elsewhere on the body, irritation can occur as a result. Prompt diagnosis and treatment of these conditions is important for good genital skin health.

6. Looking after your genital skin

Wash the genital area once a day with cool or lukewarm water. Instead of soap, use aqueous or sorbelene cream. If you have inflamed or irritated skin rinse with a dilute saline solution (1tsp salt/L water). Pat dry, don't rub. Stop scratching. If the area is too itchy, see your doctor. Importantly, if you think there is something wrong, seek medical advice.

relationships versus serial monogamy, condom use and so on — alter your risk.

6. Change your repertoire

The STI risk associated with oral sex is much less than with vaginal or anal sex. Gonorrhoea, chlamydia, HSV, HPV, syphilis and hepatitis B can be transmitted via oral sex with fellatio at greater risk than cunnilingus. The risk of HIV transmission via oral sex is very low; however, it may increase with mouth ulcers and bleeding gums. It is best to avoid oral sex when broken skin or lesions (genital or oral) are present, to avoid oral sex with ejaculation, and where possible to use condoms for fellatio and dental dams for cunnilingus.

The risk of STI and HIV transmission may increase with traumatic practices such as digital penetration and sex toy use. To be safer, use gloves for these practices and condoms for sex toys, remembering to change them in group situations. Unfortunately, no behaviour is entirely risk-free. Skin to skin contact without penetration carries the risk of HPV and HSV transmission.

7. Get vaccinated

We now have vaccines for some STIs. Viral infections such as hepatitis A can be transmitted through oral-anal sex and outbreaks have occurred among Australian MSM. Hepatitis B vaccinations are available, protecting against Hep B, which can be transmitted through infected body fluids. HPV vaccination is available also (see HPV).

Help! I have a ... (non-sexually transmitted condition)

1. Lump

Not every lump is a STI. The genitals are lumpy areas and no genitals are alike (believe me, I have seen a few).

- Glands and cysts (non-STI): The genital skin has many different glands in both men and women. These can change in appearance at times, often causing alarm in the owner.

Occasionally they can become infected. Blocked glands can form cysts that may be painful.

- Skin tags (non-STI): Can occur in men and women and are often confused for warts.
- Hymenal remnants (non-STI): The remnants of the hymen can be irregular and cause concern if mistaken for warts.
- Pearly penile papules/Vestibulo-papillomatosis (non-STI): In men, pearly penile papules (PPPs) are small lumps around the rim of the glans penis (head of the penis). They are painless fleshy lumps that may vary in size from person to person. PPPs are completely normal. The female version, vestibulo-papillomatosis (VP), occurs at the opening of the vagina. On close inspection they resemble clumps of fleshy fingers. They are also completely normal and may vary in extent from person to person. Both PPPs and VP can be mistaken for warts.
- Molluscum contagiosum virus (MCV; STI/non-STI): MCV is a skin virus that is transmitted by close rubbing (sexual and non-sexual). These lumps can appear anywhere on the skin and resemble a smooth pearly growth with a 'belly button' in the middle. They can be mistaken for pimples and are often squeezed. This is not advised, as squeezing may break the skin releasing the viral core to the surrounding skin, hence aiding and abetting the spread.

2. *Itch*

- Mites: Pubic lice, or crabs, are tiny parasitic insects that cause itch in the pubic area. The *Phthirus pubis* can move from person to person during close contact; however, they can live for up to 24 hours off the body, so may be transmitted via infected bedding, clothing and towels. While most common in the pubic hair, the pubic louse can inhabit any hair area south of the head from eyelashes and eyebrows to toe hair, and are different to

head lice. The lice or their eggs (nits) can be visible as small grey/brown dots at the base of the hair follicles.

Scabies, a parasitic mite, may also cause genital itch. The *Sarcoptes scabiei* are smaller than pubic lice and actually burrow into the skin. They prefer warm skin areas such as the genitals, armpits and in between fingers, and are transmitted by close body contact. The scabies mite can live for up to 72 hours off the body — so, like pubic lice, beware infection via bedding, clothes and towels.

- Thrush: This is a common cause of itch in men and women. Also known as candidiasis after the common cause, *Candida albicans*, this is an infection or overgrowth of yeast/fungus. This organism resides in the bowel and in can also live in the healthy vagina without causing any problems. When conditions are favourable, yeast numbers multiply and symptoms such as itch, redness, burning, skin cracks and vaginal discharge, can occur. Although it is not a STI symptoms may occur after sex. The majority of women will experience thrush as some point.

3. *Discharge*

Vaginal discharge is normal and will change in appearance and consistency according to the hormonal cycle. Daily discharge is the result of normal secretions, skin cells and healthy, normal bacteria. It changes from colourless to white, thick to mucous-like, and usually odorless. Rectal discharge and penile discharge should prompt a visit to the doctor.

- Bacterial vaginosis: The vagina comprises an ecosystem of organisms that maintain a healthy, acidic environment. This protective acidity may be disrupted by anything that upsets the natural bacterial balance, including sex, semen, vaginal creams, retained bits of condom or tampon, and douching or ‘washing out’ the vagina. With a change in the acidity, the bacterial

balance may be lost, encouraging an overgrowth of some bacteria. The result is a fishy smell, vaginal discharge and vaginal rawness called ‘bacterial vaginosis’ (also ‘gardnerella’ and ‘BV’). This is not a STI and eventually the acid balance is reestablished, but treatment is available.

- Thrush: Thrush can also cause a vaginal discharge — typically thick, white and lumpy, often likened to ‘cottage cheese’.

4. *Smell*

- Bacterial vaginosis.
- Poor genital hygiene: A build-up of organisms can occur under the foreskin and in other genital areas. This may cause a smell. Daily rinsing genitals gently with warm water will help to maintain skin health.
- Other skin conditions: General skin conditions (for example, eczema, psoriasis, dermatitis) may occur on the genitals and may lead to ulceration of the skin and cause an unpleasant smell. Attending to the cause of the skin condition will alleviate associated symptoms.

Although sex seems to be ever more prescient in our modern day lives — in the media, advertising, language and so on — sexual health medicine and the sexual health concerns of the individual continue to be stigmatised. We happily chat openly about sex, drugs, and rock and roll, but when it affects us directly, the paradigm changes. I consider myself both honoured and privileged to be a part this private world, and to be able to assist those in need physically and psychologically. One of the most satisfying aspects of being in the health industry is derived from believing that you help and make a difference to someone’s wellbeing. And at the very least, sexual health medicine never fails to challenge — after many years asking people intimate questions about their sex lives, I am still surprised by the human experience. So, let’s all

work together towards acceptance and tolerance. Viva healthier and happier sex and sexual health!

Glossary

| | |
|------|--------------------------------------|
| ART | antiretroviral therapy |
| BBB | blood borne viruses (HIV/Hep B/HepC) |
| BV | bacterial vaginosis |
| HIV | human immunodeficiency virus |
| HPV | human papillomavirus |
| HSV1 | herpes simplex virus type 1 |
| HSV2 | herpes simplex virus type 2 |
| MCV | molluscum contagiosum virus |
| MSM | men who have sex with men |
| PPPs | pearly penile papules |
| STIs | sexually transmitted infections |
| VP | vestibulopapillomatosis |

Resources

For online/email/SMS contact tracing

<http://letthemknow.org.au/>

<http://www.thedramadownunder.info/>

Fact sheets available

NSW STI programs unit: <http://www.stipu.nsw.gov.au>

Melbourne sexual health centre: <http://www.mshc.org.au>

Clinic 275: STD Clinic, Adelaide, South Australia, <http://www.stdservices.on.net/clinic275>

Endnotes

1. PA Agius et al., 'Two steps forward and one step back? Australian secondary students' sexual health knowledge and behaviours 1992–2002', *Journal of Adolescent Health*, vol. 38, no. 3, 2006, pp. 247–252.
2. MSC Lim et al., 'Surveillance of STI risk behaviours among young people attending a music festival in Australia, 2005–2008', *Australian and New Zealand Journal of Public Health*, vol. 33, 2009, pp. 482–484.

3. World Health Organization, *Global strategy for the prevention and control of sexually transmitted infections: 2006–2015: breaking the chain of transmission*, WHO, Geneva, 2007.
4. World Health Organization, *Prevalence and incidence of selected sexually transmitted infections: chlamydia, neisseria gonorrhoea, syphilis and trichomonas vaginalis*, WHO, Geneva, 2011.
5. World Health Organization, *Global summary of the AIDS epidemic 2011*, retrieved from http://www.who.int/hiv/data/2012_epi_core_en.png
6. J Richters and A Song, 'Australian university students agree with Clinton's definition of sex', *BMJ*, vol. 318, 1999, pp. 1011–1012.
7. SA Sanders and JM Reinisch, 'Would you say you "had sex" if....?', *JAMA*, vol. 281, 1999, pp. 275–277.
8. SA Sanders et al., 'Misclassification bias: diversity in conceptualisations about having "had sex"', *Sexual Health*, vol. 7, 2010, pp. 31–34.
9. CE Rissel et al., 'Sex in Australia: attitudes towards sex in a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 118–123.
10. ZD Petersen and CL Muehlenhard, 'What is sex and why does it matter? A motivational approach to exploring individuals' definitions of sex', *Journal of Sex Research*, vol. 44, no. 3, 2007, pp. 256–268.
11. CE Rissel et al., 'Sex in Australia: first experiences of vaginal intercourse and oral sex among a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 131–137.
12. AE Grulich et al., 'Sex in Australia: homosexual experience and recent homosexual encounters', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 155–163.
13. AM Smith et al., 'Sex in Australia: sexual identity, sexual attraction and sexual experience among a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 138–145.
14. J Richters et al., 'Sex in Australia: sexual and emotional satisfaction in regular relationships and preferred frequency of sex among a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 171–179.
15. CE Rissel et al., 'Sex in Australia: selected characteristics of regular sexual relationships', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 124–130.
16. CE Rissel et al., 'Sex in Australia: attitudes towards sex in a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 118–123.
17. J Richters et al., 'Sex in Australia: autoerotic, esoteric and other sexual practices engaged in by a representative sample of adults', *Australian and New Zealand Journal of Public Health*, vol. 27, no. 2, 2003, pp. 180–190.

18. The Kirby Institute, *HIV, viral hepatitis and sexually transmitted infections in Australia annual surveillance report 2012*, The Kirby Institute, University of New South Wales, Sydney, 2012.
19. Ibid.
20. AL Cunningham et al., 'Prevalence of infection with herpes simplex virus types 1 and 2 in Australia: a nationwide population based survey', *Sexually Transmitted Infections*, vol. 82, no. 2, 2006, pp. 164–168.
21. LCD Scarbrough et al., 'The appraisal of the burden of genital warts from a health care and individual patient perspective', *Public Health*, vol. 125, no. 7, 2011, pp. 464–475.
22. The Kirby Institute, op cit.
23. AM Khan et al., 'Smoking and multicentric vulval intraepithelial neoplasia', *Journal of Obstetrics and Gynaecology* vol. 29, no. 2, 2009, pp. 123–125.
24. AM Khan et al., 'Risk factors for the acquisition of genital warts: Are condoms protective?', *Sexually Transmitted Infections*, vol. 75, no. 5, 1999, pp. 312–316.
25. J Grierson et al., *HIV Futures 6: Making positive lives count*, monograph series number 74, The Australian Research Centre in Sex, Health and Society, Latrobe University, Melbourne, 2009.
26. MC Boily et al., 'Heterosexual risk of HIV-1 infection per sexual act: systematic review and meta-analysis of observational studies', *Lancet Infectious Diseases*, vol. 9, 2009, pp. 118–129.
27. E Vittinghoff et al., 'Per-contact risk of human immunodeficiency virus transmission between male sexual partners', *American Journal of Epidemiology*, vol. 150, 1999, pp. 306–311.