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## Reducing the harms from substance misuse

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## Sexually transmissible infections in the setting of substance use

### OVERVIEW

Sexually transmissible infections (STIs) are infections that are spread through sexual contact. They are sometimes also spread from mother to child during pregnancy or childbirth. Common STIs include gonorrhoea, chlamydia, syphilis, genital warts and herpes.

Most STIs do not cause major symptoms until after a long time (weeks or even years), so a person can have an STI without knowing and then pass it on to someone else. People who drink to intoxication or who use drugs are more at risk of being infected with a STI, due to the risky behaviour associated with alcohol and drugs, and should be regularly tested. Testing is usually easy to organise and varies according to the type of STI, e.g. urine tests, swab tests or blood tests (a swab is like a large cotton bud, used to collect samples of fluid). Most STIs are easy to treat and this usually involves taking tablets or having an injection.

Encouraging regular condom use, regular testing, and trying to limit the number of sexual partners can help reduce the spread of STIs.

### How common are STIs in Australia?

STIs are very common in Australia and Aboriginal people tend to have higher rates of STIs than the wider community. Chlamydia is particularly common, and rates are rising among young people (under 25 years).

Herpes is very common in Australia. This is because once a person is infected they are infected for life, even if they do not have any symptoms. People with multiple sexual partners are more likely to be infected with herpes.

Men who have sex with men are more likely to become infected with certain STIs – gonorrhoea, syphilis, and herpes.

### STIs AND SUBSTANCE USE

People who drink or use drugs to the point of intoxication are more at risk of STIs. This may be because they have less inhibition or because they are less able to make clear decisions. They may be more likely to have sex to begin with, and also more likely to have unprotected sex. Also, people may be heavily sedated and have unwanted sex.

They may also not remember if condoms were used. Some drugs (e.g. amphetamines) may increase sexual desire.

## HOW ARE STIs SPREAD?

STIs are usually spread ('transmitted') from person-to-person during sexual contact. Most infections are carried in the body fluids of the man or the woman. That is, they are spread from the penis, vagina, or anus, and sometimes from the mouth in oral sex. Genital warts are spread during sexual contact by infected skin coming into contact with the skin of another person. What part of the body gets infected will depend on the way that the person has sex.

If someone is infected with an STI, there is a high chance that they will pass it on to another person during unprotected sexual contact.

Some STIs can be spread from mother to child during pregnancy or childbirth; for example, gonorrhoea, chlamydia and syphilis. So women should be tested before or during pregnancy so they can be offered treatment. Genital warts can also be transmitted from mother to child but this is rare.

## WHAT ARE THE SYMPTOMS OF STIs?

Most STIs can cause sores or discharges (i.e. abnormal fluids) from the penis, vagina and anus. But most people who are infected with an STI do not show any symptoms (they are 'asymptomatic'). Some common symptoms of STIs include:

### Symptom

### Possible cause

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Ulcer/blisters on the genitals. With herpes, these sores can recur (happen regularly). The first time there are lots of painful ulcers/blisters but when they recur they are usually much less painful and there are only a few ulcers/blisters.

*Syphilis, herpes*

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Lumps on genitals or anus or around this area. Genital warts look like warts that you would find on other parts of the body.

*Genital warts, syphilis*

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<b>Symptom</b>	<b>Possible cause</b>
Discharge from penis or vagina	<i>Gonorrhoea, chlamydia</i>
Sore throat	<i>Rarely syphilis, herpes, chlamydia, gonorrhoea</i>
Anal symptoms other than warts (e.g. very sore bottom, continual need to pass a bowel motion, discharge)	<i>Syphilis, herpes, chlamydia, gonorrhoea</i>
Often show no symptoms	<i>Chlamydia, gonorrhoea, syphilis, herpes</i>

### **Symptoms of syphilis**

After being infected with syphilis, at first sores or ulcers can happen where the person was infected, usually the genitals, anus or mouth ('primary syphilis'). After four to 10 weeks it spreads through the body and causes a rash, fever and enlarged glands ('secondary syphilis'). After a few weeks all the symptoms go away but blood tests are still positive ('latent syphilis'). Many years later people can get severe heart, brain and nerve disease ('tertiary syphilis'). Many people infected with syphilis do not realise they are infected and think their symptoms are because of another illness.

### **HOW TO TEST FOR A STI**

Clients can access free testing for STIs through their local doctor or clinic, sexual health centre, and through many drug treatment centres.

Testing for gonorrhoea and chlamydia involves a first-catch urine sample (i.e. it is first part of the urine sample after one hour of not passing urine). For gonorrhoea, swab samples are also taken from the throat and anus. For chlamydia, swab samples are taken from the vagina, cervix (the opening of the woman's womb), and anus. Testing for syphilis involves a blood sample. Testing for herpes involves a swab sample from the ulcer/blisters or sores.

Results may take up to a week for some tests.

There are no urine or blood tests for genital warts. They are diagnosed only by visual inspection.

## WHAT TREATMENTS ARE AVAILABLE

Treatment for STIs usually involves injections, tablets or creams. Most people with an STI should not have sex until after the treatment is completed and their partners are also treated.

Treatment for STIs is normally received at the same place where the person is tested. For example: through their local doctor or clinic, sexual health centre, or through a drug treatment centre.

The following list has information about the treatment of some common STIs:

### Gonorrhoea

- A single injection of antibiotics (Ceftriaxone) is given to stop discharge from the penis, vagina or anus.
- The client should not have sex for the next seven days.
- Contact tracing should happen. This means contacting sexual partners from the previous two months and getting them tested and treated.
- The client should be re-tested in three months to make sure they are no longer infected.

### Chlamydia

- A single dose of antibiotic tablets (azithromycin 1g = two tablets) is given to stop discharge or burning sensation from the penis and discharge from vagina or anus.
- The client should not have sex for the next seven days.
- Contact tracing should happen. For chlamydia this means contacting partners from the previous six months and getting them tested and treated.
- The client should be re-tested in three months to make sure they are no longer infected.

### Syphilis

- Weekly injections of penicillin are given to treat syphilis. How many injections the client needs depends on what stage of infection they are at. For early infections (primary or secondary), only one injection is needed. For late infections (after one year), three injections are needed.
- Contact tracing should happen and partners should be tested and treated. For primary syphilis this means partners from the previous three months before symptoms started. For secondary syphilis this means partners from the six months before symptoms started. For early latent syphilis – partners from the previous 12 months before symptoms started.
- The client should not have sex until one week after treatment ends.
- The client should have follow-up blood tests to make sure they are no longer infected.

### **Genital warts**

- Warty lumps on penis, around anus or around entrance to vagina can be frozen off (cryotherapy) or burned off (cauterising).
- The client can also use Podophlotoxin paint or cream and apply it themselves. (This paint should not be used by women who could be pregnant.)

### **Herpes**

- Anti-viral tablets (Valacyclovir, Famciclovir, Acyclovir) can be taken for around two to five days when the client has symptoms. This can reduce the number of ulcers/blisters on the penis, inside and around the anus, or around the entrance to the vagina. The client should not have sex when they have symptoms, although herpes can be spread even when there are no symptoms.
- Anti-viral tablets can also be taken long-term to help to prevent spreading herpes to sexual partners. This treatment is listed on the Pharmaceutical Benefits Scheme (PBS) so is cheap for Aboriginal clients under Close the Gap.

### **WHAT HAPPENS IF STIs ARE NOT TREATED?**

If STIs are untreated, they can cause problems with getting pregnant for both men and women. Untreated STIs can also spread from mother to baby during pregnancy.

STIs can also cause a lot of worry and distress as you can easily spread STIs to sexual partners.

### **PREVENTING THE SPREAD OF STIS**

Regular use of condoms and having fewer sexual partners are the best ways to prevent the spread of STIs. Making people aware of the ways people can get STIs is also important. It can also be useful to consider local language and cultural concepts when providing this information.

To prevent genital warts, a free vaccine (gardasil injection) is available to school-aged girls (usually Grade 7) through the National Immunisation Program. Adults can get the vaccine by prescription but it is expensive (around \$145). If young teenage women miss getting this vaccine, they should go to their GP to ask about getting a dose.

## Harms from injecting drug use and safer injecting

### OVERVIEW

There are a number of ways that people can be harmed from injecting drugs. There are social harms, such as those related to drug use being illegal, being dependent on a drug, or things a person does to raise money for drugs. There are also physical harms of injecting like: the direct effects of the drug itself (such as overdose), and harms from poor injecting technique and from sharing injecting equipment. Health workers can help reduce a client's harms from injecting drug use by encouraging them to stop using, by supporting them to attend drug treatment, or to use safer injecting practices for those who continue to inject. Getting the person to change how they inject can reduce many of the physical harms from injecting. Harm reduction forms the basis of Australia's national health policy on drugs.

### WHAT ARE THE PHYSICAL HARMS OF INJECTING?

The physical harms of injecting drugs generally include:

- Injuries related to the process of injecting
- Infections related to poor injection technique
- Blood-borne virus infections from sharing injecting equipment
- Injuries related to other substances mixed with drug/s
- Injury related to direct effects of the drug/s injected (such as overdose).

These problems can occur:

- Near the site of injecting (local)
- In other body parts well away from the injecting site (distant)
- In the whole body (systemic).

### **Injecting can carry germs or particles to a different part of the body**

Normally drugs are injected into veins, which carry blood back to the heart and through the lungs, before going out into the rest of the body, including the brain. Any germs or small particles from the drug can get stuck in the lungs, brain or other parts of the body.

Sometimes drugs are accidentally injected into arteries, which carry blood away from the heart to the rest of the body. If particles from the drugs lodge in a finger or toe, for example, they can block the blood supply and cause the finger or toe to go black and die (gangrene).

### **Injuries related to the process of injecting**

Physical injuries from injecting are common, and include:

- *Bruising*: this happens when blood leaks out from the vein through the hole made by the needle, into the surrounding tissue under the skin.
- *Track marks (scarring)*: these are scars along the skin caused by repeated injecting into the same spot on the body (injecting site).
- *Swelling or inflammation*: redness or swelling around the injection site can happen if the vein is missed and the drug is injected into the flesh near the vein.
- *Vein damage*: this can happen at (or near) the site of injecting when someone:
  - Uses the same spot to inject many times
  - Has repeated infections from injecting
  - Where the drug contains a contaminant like bleach or dirt
  - When the drug itself (e.g. methadone) irritates the vein, or the substances used to ‘cut’ the drug irritate the vein
  - A damaged (e.g. barbed) or blunt needle is used
  - A vein becomes inflamed and sore (phlebitis) or blocked off.
- *Artery damage*: this happens when someone accidentally injects into an artery. It is more common when injecting in the groin because the artery and vein sit close together. It can also happen when injecting in the arm and neck.
  - In arteries, blood is under higher pressure and can spurt out.
  - Major bruising can happen unless firm pressure is applied for 15 minutes.
  - If small particles are injected, these can get stuck further along an artery, in another part of the body. This can block off the blood supply to that part of the body, and cause that body part to die. For example, if an artery supplying blood to the fingers is blocked off, the fingers can turn black and die.

- *Embolism*: sometimes a bit of drug, a piece of a blood clot, or other particles fly off through the veins and get stuck somewhere else in the body (e.g. lungs, brain, fingers). If this happens in the lung (pulmonary embolism) it can cause chest pain, shortness of breath and coughing up blood. This is serious and means a person should be admitted to hospital for treatment. This can happen when injecting any illegal drug. It can be even more likely when people inject crushed tablets.

### **Infections related to poor injection technique**

Infections from poor injecting technique can happen if:

- People do not wash their hands or clean their skin properly (with an alcohol wipe) before injecting
- The needle becomes contaminated before injecting, such as from licking the tip, or from using in a dirty environment. Germs can get onto the equipment, even if using a new 'fit'
- Someone reuses their own injecting equipment
- People share injecting equipment. Infections, including blood-borne viruses, can pass from one person to another when different people share the same equipment. Reused needles and syringes are known as 'dirty fits'.
- The person has a 'dirty hit' by injecting bacteria that was mixed in with the drug itself
- There is a lot of vein damage.

Infections may be in the same area as the injection (local) or occur where germs/particles lodge downstream (distant). A systemic infection is serious and happens when an infection spreads to the bloodstream.

Some common infections that can happen after injecting drugs are:

- *Local infections (at the injecting site)*
  - Cellulitis: an infection underneath the skin that causes redness, pain, inflammation and heat to the area. If not treated it can cause an abscess or systemic infection or blood poisoning (see Cellulitis, p.206).
  - Abscess: a collection of pus (white blood cells and dead tissue) under the skin that is caused by an infection that has been 'walled off' by the body. Abscesses usually need to be drained by a doctor and treated with antibiotics (see Abscess, p.205).

- *Infection in a distant body part*: when bacteria travel through the bloodstream they can set up an infection somewhere else.
  - Bacteria can get stuck in a small blood vessel in another part of the body (embolism). So people who inject drugs can get infections in unusual places. These can be hard for the doctor to diagnose, especially if the doctor does not know the person injects drugs. Examples are a brain abscess, an infection in a bone (osteomyelitis), or in a joint (septic arthritis). These infections can be very serious and usually need antibiotics through a drip in hospital.
  - Heart valve infection (endocarditis): this is a life-threatening illness that makes it difficult for the heart to pump blood. Symptoms may just be fever, chills, and feeling unwell. In other cases there may be weakness, cough, difficulty breathing, headaches and aching joints. People can get very sick and can die if treatment is not received quickly. Anyone who has recently injected drugs and is unwell with a fever with no clear cause needs to have blood taken to test for endocarditis (including 'blood cultures'). If the doctor suspects endocarditis, he/she will usually start antibiotics through a drip, and transfer the person to hospital.
- *Systemic infection or blood poisoning*: this is a serious condition known as 'septicaemia'. It may occur when a localised infection is not treated and spreads to the blood. It may also occur when germs (bacteria) enter the blood with injecting and then multiply. It causes high fever (more than 38.5°C) and often chills and shaking. Blood poisoning can be fatal if not treated quickly with antibiotics, usually given through a drip in hospital.
- *Blood-borne viruses (hep C, hep B, HIV) from sharing injecting equipment*
  - Blood-borne viruses (BBVs) like hep C, hep B and HIV can be passed from one person's blood to another's when people use injecting equipment after another person has already injected with it. The risks are highest when someone shares a needle or syringe. However, BBVs (hep C in particular) may be transmitted when other injecting equipment is shared, such as spoons, water or tourniquets.
  - There are several different strains of these viruses, so a person infected with one can still catch another strain.
  - Often people do not know that they are infected with a BBV, so it is important for people who inject drugs to regularly get tested. This is important, as treatment is available. People can get tested (usually for free) through their GP or clinic, and through many sexual health or drug treatment clinics (see Hep C and hep B, p. 305, 308; HIV p. 315).

### **Injuries related to other substances mixed with the drug/s**

Illegal drugs are expensive so dealers often mix in other substances so that it looks (or weighs) more when they sell it. This is called ‘cutting’ the drug. A wide range of substances can be used and include:

- A powder that looks like the drug (e.g. talcum powder, corn starch, cellulose)
- Other cheaper drugs (illegal or prescription drugs).

Sometimes chemicals used to make or purify the drug are left behind in the drug. This could include acids like vinegar or lemon juice, and even hydrochloric or sulphuric acid. These chemicals can cause damage to the body at the site of injecting or sickness.

### **Harms related to direct effects of the drug/s injecting (such as overdose)**

There is a higher chance of having an overdose after injecting a drug than when it is taken by mouth or smoked. This is because a large quantity of the drug reaches the brain very quickly. The most common type of overdose is from opioids, but overdose can occur with all types of drugs. For example, overdose from sedating drugs (e.g. opioids, benzos) can result in loss of consciousness and slowed or stopped breathing. When too much cocaine or amphetamines are used, a person may become very agitated, paranoid and/or psychotic.

#### **Opioid overdose is more likely to happen when a person:**

- Injects alone
- Uses more than one sedating drug (e.g. heroin used with alcohol or benzos or other opioids such as oxycodone or morphine)
- Has not used for a while and their tolerance is down. This could happen after someone leaves detox or rehab, if they come off methadone or buprenorphine treatment, or if they have recently come out of jail (see Opioids, p. 155; Benzos, p. 183).

### How to recognise an overdose

The person is likely to be having an overdose if they:

- Have very slow, and/or very shallow breathing. If you count more than fifteen or twenty seconds without a single breath, it is likely they are overdosing.
- Are not responding in any way when you shake them or talk loudly to them (i.e. they are unconscious)
- Are turning blue (lips, finger tips).

### What to do if someone overdoses

If the client is unconscious but is still breathing:

- Place the person on their side.
- Ask someone to call 000 for help.
- Make sure their airway is clear so they can breathe (check that there is nothing blocking their mouth or throat, and put their head in a good position; see CPR guide, p. 436).
- Watch them to make sure they do not get worse. This is very important, as an overdose may become more severe in a matter of minutes. Continue to check their breathing until the ambulance arrives.

If the client is not breathing:

- Check that their airway is clear.
- Ask someone to call 000 for assistance.
- Start cardiopulmonary resuscitation (CPR; see p. 436). If you are not sure how to do CPR, the 000 operator will help you with step-by-step instructions until the ambulance arrives. Breathing for the person ('the kiss of life') is often the most important part, as in a sedative overdose (e.g. heroin, alcohol or benzos) the person's breathing may stop before their heart does.

Many people think that if they call an ambulance when somebody overdoses the police will also be involved. Police do not usually attend overdoses unless someone has died.

## WHAT ARE THE PSYCHOLOGICAL HARMS OF INJECTING?

Because you get a strong 'hit' from injecting, there is a greater risk of becoming dependent.

## WHAT ARE THE SOCIAL HARMS OF INJECTING?

Some social harms of injecting include:

- *Stigma and discrimination*: people who inject drugs often experience discrimination, including in the health care system. As a result, clients may not seek help because they do not want to be judged.
- *Money problems*: because of the high cost of illegal drugs and because they are particularly addictive when injected, money problems often happen (e.g. being unable to pay bills, difficulty finding or keeping a job, or becoming homeless).
- *Family and community problems*: people who inject drugs and are dependent may have trouble caring properly for themselves or their families. They may also be isolated or disconnected from their community and feel shame. This can lead to sadness, depression or even suicide.
- *Criminal behaviour*: people who inject drugs often become involved with the police and criminal justice system. This is not only because drug use is illegal, but also because many of the activities that people are engaged in (to afford the drugs) brings them into contact with the law.

## REDUCING OR PREVENTING THE HARMS FROM INJECTING

Clearly, if a person agrees to stop injecting or accepts treatment to help them stop, this is a big step to reducing the harms from injecting. However, many people take some time, or multiple attempts, before they are able to stop. Some people may stop completely, others may reduce how often they use, or how much. Other people do not want to stop using a drug, but may be prepared to swap from injecting to another method, such as swallowing, smoking, snorting, or shelving (putting it up into their anus). There will always be some people who do not want or are unable to stop injecting. Because of this, it is important to think about ways of reducing the harms from injecting. This can keep the user safe, but can also reduce the harms that are passed on to people in their family and in their community.

## SAFER INJECTING

While our goal as health professionals may be to help people stop using drugs, we have to be practical and realistic. We know that not everyone wants to stop and not everyone is able to stop as soon as they decide to. It is essential that we try to keep people healthy for as long as possible. It may be that they then live long enough to stop their drug use. It is also important that they stay healthy so that infections and other harms of injecting do not hurt them or family and community around them.

It is uncommon for an established injecting drug user to change their method of drug use to swallowing or smoking. Many continue injecting because they are dependent, and want the stronger, faster effect. Other methods of using drugs like taking by mouth or smoking generally do not give as strong an effect, so the person would need to use more of the drug and spend more money to do so. For others the ritual of injecting can be very difficult to stop. So it is essential to be able to advise people who inject drugs on how to make injecting as safe as possible.

### **Why do people share injecting equipment?**

There are many reasons why people will reuse a 'fit' (i.e. their needle and syringe) or use another person's dirty fit: for some it is because they are 'hanging out' for the drug so are in a hurry; others are unable to find a source of new clean fits. This can be a big problem in rural and remote areas as there are fewer Needle and Syringe Programs (NSPs) and they may be far away. Some other reasons why people share equipment is because of group pressure, being physically dependent, confusion or making a mistake, or not realising that sharing equipment can cause health problems.

Sharing is an important part of Aboriginal culture, but injecting equipment is one thing that should not be shared. Sharing a 'dirty fit' is one of the main causes of health complications and deaths in people who inject drugs.

## **SAFER INJECTING PRACTICE**

If a person is injecting drugs, even sometimes, it is good to talk with them about how they do it (their injecting technique). For example, you can ask:

- How hard is it to get clean fits (injecting equipment)?
- Do you ever share injecting equipment, and, if so, in what circumstances?
- Is anyone injecting near you when you are injecting? Or in the same house?

You may find you need to give advice on how to make injecting safer. Here are some tips you can share with your client:

- Wash hands and fingers, and if water is unavailable clean fingers with alcohol wipes
- Find a clean area to prepare and wash it down if possible
- Use new fits (i.e. new needle and syringe)
- Use clean injecting equipment (including water, spoon, filter, alcohol wipe, tourniquet) and do not share
- Find a vein (use a different site every time if possible)

- Clean the injection site with an alcohol wipe
- Put on the tourniquet – not too tight
- Inject with the needle at a 45 degree angle to the skin (i.e. pointing towards the heart, with the needle on a slant compared to the skin)
- Pull back the plunger a little way – blood should appear
- If possible, release the tourniquet before slowly pushing in the plunger
- Be sure the tourniquet is off before removing the needle
- Apply pressure at the injecting site using clean cotton wool or tissue (for at least one minute)
- When finished, clean area and dispose of all equipment safely
- Wash hands; if water is unavailable clean fingers with an alcohol wipe.

### **Things people do to clean fits when new equipment is not available**

- Washing a fit is never as safe as using a new fit. Some people use bleach to clean used injecting equipment if they cannot get fresh fits. They flush out the syringe first with water, then bleach, then with water again. Fresh bleach does kill the HIV virus, but the bleach does not work as well if it is out of date, or stored in the sun. Sometimes bleach is not fully washed out of the syringe and a small quantity may be injected into the person. Hep C is harder to kill with bleach.
- Sometimes people try to clean their used injecting equipment by flushing out with only clean or sterile water. While this is better than doing nothing, viruses, especially hep C, can stay behind even after any visible traces of blood are gone.

### **Where your client can get clean injecting equipment**

There are Needle and Syringe Programs (NSPs) in many cities and regional centres (see NSPs, p. 298). Some of these will have vending machines for injecting equipment or outreach services. Also, people can usually buy needles and syringes from local pharmacies. Some drug and alcohol treatment units also dispense free injecting equipment.

### **FURTHER READING**

See the Indigenous HealthInfoNet website and type *harms from injecting* in the search box: [www.healthinfonet.ecu.edu.au](http://www.healthinfonet.ecu.edu.au).

See the NSW Users and AIDS Association Inc. [www.nuaa.org.au/index.php](http://www.nuaa.org.au/index.php).

See the Aboriginal Drug and Alcohol Council Inc. SA website and click on *resources*: [www.adac.org.au](http://www.adac.org.au).

## Needle and Syringe Programs

### WHAT IS A NEEDLE AND SYRINGE PROGRAM?

Needle and Syringe Programs (NSPs) provide clean injecting equipment to people who inject drugs, which may include needles and syringes, swabs, water, spoons, filters and tourniquets. This equipment usually comes in a black plastic case known as a Fitpack, which can also be used as a container for used equipment. Some NSPs also provide larger yellow plastic containers for the safe disposal of used equipment. NSP staff also offer information and advice to clients such as:

- How to reduce the risks associated with injecting drugs, like becoming dependent, overdosing, or infections such as HIV, hep B and hep C
- The types of treatment and rehabilitation programs available to help reduce or stop using drugs, also helping clients get in contact with these programs
- How to get in contact with other services like Legal Aid and Centrelink.

### WHY ARE NEEDLE AND SYRINGE PROGRAMS IMPORTANT?

The main idea behind NSPs is to prevent infections such as HIV (that causes AIDS), hep C and hep B. These viruses are carried in blood (blood-borne) and can be spread among people who inject drugs into their veins. Blood-borne viruses can be prevented by making sure that needles, syringes and other injecting equipment that have infected blood on them are not used by someone else to inject drugs. That way, people are less likely to become infected by injecting these viruses into their blood. Making sure that clean needles, syringes and other injecting equipment is available to people who inject drugs helps to lower the spread of HIV (see, p. 311), hep C and hep B (see p. 302).

### WHERE TO FIND A NSP IN YOUR AREA

Across Australia, NSPs can be found in a range of different places:

- Some are stand-alone, where the NSP is the main service provided.
- Others are part of a larger health service like a hospital or primary health care clinic.
- Some operate from drug and alcohol clinics, sexual health clinics or community health centres.
- Many local chemists sell injecting equipment.
- In some communities, automatic vending machines provide injecting equipment for a small fee (around \$3) or for free. These are usually found outside hospitals, drug and alcohol clinics, sexual health clinics or community health centres.

## HOW DO PEOPLE GET IN TOUCH WITH AN NSP?

People do not need a referral or an appointment to go to a NSP. They can walk in off the street at any time during the NSP's opening hours. People of all ages can access an NSP, recognising that younger people are particularly at risk of blood-borne viruses like HIV.

## WHAT IF PEOPLE FEEL SHAME ABOUT INJECTING DRUGS?

Injecting drug use can be a source of shame, and people who inject drugs often report experiencing discrimination in the healthcare system. To make sure that people are comfortable about getting clean injecting equipment from NSPs, NSP staff provide a non-judgemental, confidential and anonymous service (as much as anonymity is possible). In smaller and remote communities it is harder to remain anonymous when someone walks into a NSP, and special efforts may need to be made. For example, NSP staff may be able to arrange delivery of injecting equipment to a convenient location, which is more discreet.

### **A sample case from Brian, a Koori man who works in an urban NSP in inner Sydney**

As a Harm Minimisation worker I deal with people who are injecting drug users as well as the wider community. Here is a story about a client who comes to the NSP.

A young Koori man comes into the NSP. The first thing I do is greet him with a smile and make some casual small talk like: *"How's it going brother?"*

This is to acknowledge and show respect and also helps create a two-way yarn, which can give a young person a sense of empowerment, not to mention making him feel welcome.

I then let the young person guide the conversation. He might ask: *"What do you mob do here?"*

I would usually respond by saying: *"We look after the community."* I would then tell him about the NSP, what else we offer and ask him if he needs anything. The conversation will go one of two ways:

He might say *"F\*\*\* that!! You help those dirty junkies?"*

I would then respond by saying something like: *"They are still our mob and if we don't look after each other then who will?"*

Or alternatively he might say: *"Give us a few darts [needles], bro."*

This is the crucial opportunity to engage the client. I would provide what he was asking for (some needles) and start a yarn about health-related things. I might mention where to get help at night (like accommodation or food), advise him never to mix drugs (including alcohol), and to try to take it easy. I would also advise him not to share needles, syringes and other injecting equipment when injecting with someone else and then finish with: “*Hey, if you have any problems, come back. Come back anyway!*”

*NSPs are part of Australia’s harm minimisation approach to alcohol and other drug use, which has formed the basis of Australia’s National Drug Strategy since 1985.*

Harm minimisation includes a range of approaches under three pillars that work together “to build safe and healthy communities by minimising alcohol, tobacco and other drug-related health, social and economic harms among individuals, families and communities” (*The National Drug Strategy 2010–2015: A framework for action on alcohol, tobacco and other drugs*, see: [www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/home](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/home)).

These three pillars include:

1. *Demand reduction*: to prevent people taking up drugs in the first place, or to reduce drug use among people who have already started using drugs. When last estimated, about 40% of all government drug and alcohol funding went towards this.
2. *Supply reduction*: to reduce the production and supply of illegal drugs, and control the supply of legal substances such as alcohol and tobacco. These approaches have received just over half of all government funding to address drug and alcohol issues in Australia.
3. *Harm reduction*: to prevent drug-related harms like HIV, hep C and hep B among people who for whatever reason are unable to cut down or stop injecting drugs. NSPs are a key harm reduction strategy. These approaches have only received a small amount (less than 5%) of all drug and alcohol funding to date.

**FURTHER READING**

*The National Drug Strategy 2010–2015: A framework for action on alcohol, tobacco and other drugs.* See: [www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/home](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/home)

National Centre in HIV Epidemiology and Clinical Research and Commonwealth Department of Health and Ageing (2009). *Return on investment 2: Evaluating the cost effectiveness of needle and syringe programs in Australia.* Sydney: National Centre in HIV Epidemiology and Clinical Research, UNSW. Canberra: Commonwealth Department of Health and Ageing.

## Hepatitis C and B

### OVERVIEW

Hepatitis C and hepatitis B (known as hep C and hep B) are viruses that can harm the liver. The viruses infect and live in the liver cells. These cells are 'attacked' by the virus and this attack can cause scarring in the liver. Hep C is very common among injecting drug users. For many people hep C does not cause problems, but for one in six people it can lead to serious liver damage. The risk of this is much greater if the person drinks alcohol above the recommended levels. Hep B is less common in injecting drug users than hep C, and you can protect against it with vaccination. Some Indigenous communities have high rates of hep B.

### HOW ARE BLOOD-BORNE VIRUSES SPREAD?

Viruses like hep C and hep B are 'blood-borne'. This means that an infected person's blood needs to come in direct contact with a non-infected person's blood for the infection to be passed on. The most common way of getting hep C is when people inject drugs and share needles or injecting equipment (see Safer injecting, p. 296).

Occasionally, a person can catch hep C by sharing a toothbrush or razor. The virus stays on the used razor in tiny invisible spots of blood and the virus then enters the second person's blood through tiny cuts. A much less common way of becoming infected is by coming into contact with tattooing needles or medical equipment that is not sterilised. Blood transfusions in Australia are now considered safe.

### What is a virus?

Viruses are tiny particles, much smaller than bacteria. They cannot survive on their own. They depend on other living things, such as humans, to survive. Viruses are passed from one person to another ('transmission') in different ways. The flu virus, for example, can be transmitted when a sick person coughs or sneezes the virus into the air. A person can get this infection if they breathe in droplets containing the virus. That is why the flu virus is so easy to catch, and one of the reasons so many people get this virus every year. You cannot catch hep C or B from someone coughing or sneezing on you.

## How people become infected with hep C or hep B

	Hep C	Hep B
<i>How is it transmitted?</i>	<ul style="list-style-type: none"> <li>• From blood to blood (It is more uncommon to become infected through unprotected sex, but it can happen)</li> </ul>	<ul style="list-style-type: none"> <li>• From blood to blood</li> <li>• Through unprotected sex</li> </ul>
<i>Risky situations</i>	<ul style="list-style-type: none"> <li>• Unsafe injecting</li> <li>• Unsterile tattooing</li> <li>• Prisons (because of unsafe injecting and tattooing)</li> <li>• From mother to baby (around 1 in 20 babies are born to mothers with hep C)</li> </ul>	<ul style="list-style-type: none"> <li>• Unsafe injecting</li> <li>• Unsterile tattooing</li> <li>• Prisons (because of unsafe injecting and tattooing)</li> <li>• From mother to baby (up to 1 in 10 babies born to mothers with hep B can get this virus)</li> </ul>

## HEP C: WHAT HAPPENS WHEN A PERSON BECOMES INFECTED?



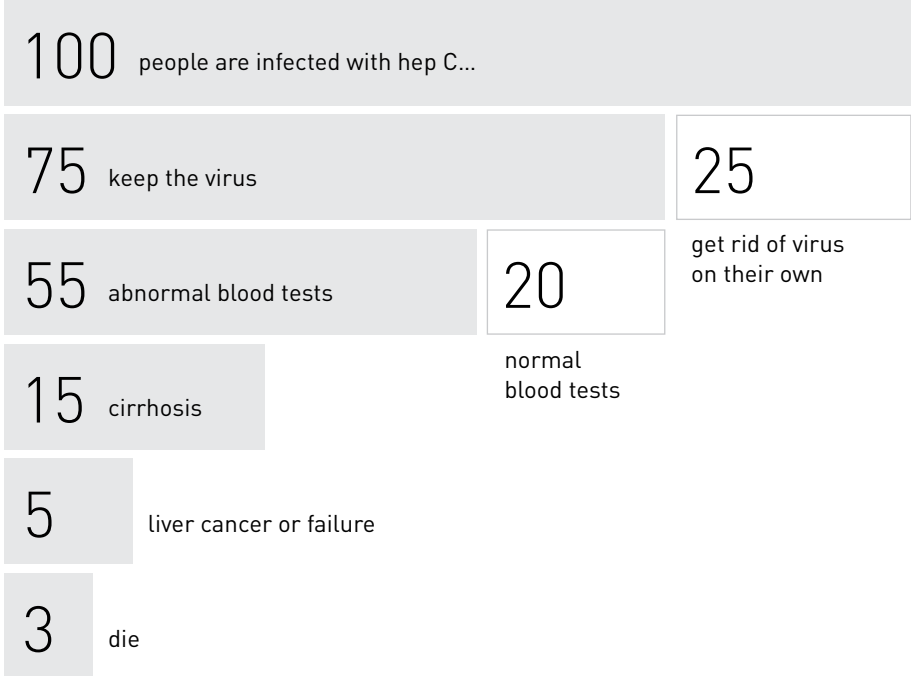
One in four people will get rid of the hep C virus on their own within six months of being infected.

If a person clears the virus, they do not become immune and can be infected again. This is a key difference to hep B. For 3 in 4 people, the hep C virus will stay in their body. This is known as chronic hep C.

The hep C virus infects the liver cells. Liver damage comes from a person's immune system recognising the virus in their liver cell and attacking that infected cell. This 'attack' scars the liver over time. Chronic infection often develops without the client knowing it, as many people do not feel sick. It takes time for the liver to be damaged. It can be 20 years before you can see signs of illness from liver scarring or cirrhosis (see Cirrhotic liver, p. 202). This is why it is important to screen for hep C in people who are at risk, such as people who inject drugs, to catch them before serious damage is done.

### What happens to people who are infected with hep C?

If 100 people get infected with hep C, this drawing shows what will usually happen in people who avoid drinking alcohol but do not get treatment.



### Hep C and alcohol

If someone has chronic hep C and they drink a lot of alcohol, they can develop cirrhosis and get sick much more quickly than someone that does not drink. That is why it is so important to get people with chronic hep C to stop drinking alcohol or, at the very least, cut down to a tiny amount (e.g. no more than one drink per occasion, and not every day). If the client has cirrhosis, it is best for them to drink no alcohol at all.

## HEP C: HOW DO YOU WORK OUT IF SOMEONE HAS IT?

The first test for hep C is a blood test called the hep C antibody. The antibody is a weapon that the body makes to fight against hep C. If this test is positive, this means the person has been infected with the hep C virus at some point. A second test is then done to check if the person still has the virus (called HCV RNA or HCV PCR). If the test is positive, the person has chronic hep C. If the test is negative, the client has cleared the virus and does not have chronic hep C.

If the person still has the virus, their blood may be tested to find out which type of hep C virus the person has. This is the hep C strain ('genotype') (genotypes 1, 2, 3 and 4 are the most common). The genotypes of hep C are like brothers and sisters from the same 'family' of hep C. Different genotypes respond differently to treatment. It is important to know what genotype a person has to work out how long treatment should go for. All of these tests are done on blood. The tests do not cost the client anything as long as certain Medicare rules are met. People can get tested through their GP or clinic, and through many sexual health or drug treatment clinics.

### Privacy and discrimination

It is illegal to discriminate against a person (to harass or treat them unfairly) who has hep C or hep B. Discrimination usually occurs when people are scared of getting hep C or hep B or have negative attitudes towards injecting drug use.

In a few cases the law requires a person to say if they have hep C or B:

- When donating blood or sperm
- If they are a health professional who as part of their job comes into contact with blood and body fluids
- If they are in the armed forces
- When filling out some insurance papers.

In most situations, it is up to the client to decide whether to tell someone they have hep C or B (e.g. an employer, landlord or other person who looks after your housing).

For information about privacy and rights around hep C and hep B, contact the hepatitis organisation in your state or territory (see Contacts, p. 306).

### Hepatitis organisations in each state and territory

#### *Australian Capital Territory*

ACT Hepatitis Resource Centre  
Ph: 02 6282 2611  
[www.hepatitisresourcecentre.com.au](http://www.hepatitisresourcecentre.com.au)

#### *New South Wales*

Hepatitis NSW  
Ph: 02 9332 1853  
[www.hep.org.au](http://www.hep.org.au)

#### *Northern Territory*

Northern Territory AIDS and  
Hepatitis C Council  
Ph: 08 8944 7777  
[www.ntahc.org.au](http://www.ntahc.org.au)

#### *Queensland*

Hepatitis Queensland  
Ph: 07 3846 0020  
[www.hepqld.asn.au](http://www.hepqld.asn.au)

#### *South Australia*

Hepatitis C Council of South  
Australia  
Ph: 08 8362 8443  
[www.hepcouncilsa.asn.au](http://www.hepcouncilsa.asn.au)

#### *Tasmania*

Tasmanian Council on AIDS,  
Hepatitis and Related Diseases  
Ph: 03 6234 1242  
[www.tascahrd.org.au](http://www.tascahrd.org.au)

#### *Victoria*

Hepatitis C Victoria  
Ph: 03 9380 4644  
[www.hepcvic.org.au](http://www.hepcvic.org.au)

#### *Western Australia*

Hepatitis WA  
Ph: 08 9227 9800  
[www.hepatitiswa.com.au](http://www.hepatitiswa.com.au)

*You can also call the National Hepatitis Infoline on 1300 HEP ABC (1300 437 222)*

### HEP C: HOW DO YOU TREAT IT?

If someone has hep C, they can ask their GP for a referral to a specialist (gastroenterologist or infectious diseases specialist) or the hep C team. Some hep C clinics have a 'drop in' service, so a person can then find out more about treatment and decide if it is right for them. Anyone with chronic hep C is eligible for treatment. A liver biopsy is not needed. The government pays for the treatment, so there are no costs for the client.

The treatment for hep C consists of ‘ribavirin’ tablets taken twice a day, and a weekly injection of ‘pegylated interferon’. Ribavirin works against the virus. Interferon helps the immune system fight the virus. The length of time that a person needs to be treated depends on the genotype of hep C they have. People with genotypes 2 and 3 are generally treated for six months. Treatment is most successful in this group. Around 4 in 5 people (80%) with genotype 2 or 3 will get rid of the virus with six months of treatment. People with genotypes 1 and 4 are generally treated for one year. Treatment is successful in about half (50%) of these clients.

In 2013 or 2014, a new class of drug, protease inhibitors (e.g. telaprevir, boceprevir), will be made available to treat hep C. These tablets act directly against the virus. They will be given in combination with ribavirin and pegylated interferon as a ‘triple’ treatment.

Hep C treatment can be tough because of the side effects, but if it can clear the virus the person can stay healthy for life. Remember, people can get hep C again even after the virus has been cleared with treatment. It is not possible to have treatment during pregnancy as the medicines can affect the growing baby. Reliable contraception is very important before and during treatment to avoid this situation (see Contraception, p. 344).

### **Are there any side effects of treatment?**

Some side effects of hep C treatment include:

- Flu-like symptoms that tend to get better with time (fever, lack of energy, muscle and joint aches, headaches). These symptoms improve with paracetamol or anti-inflammatory drugs like ibuprofen (Nurofen).
- Poor appetite
- Hair falling out (alopecia). This is not common and it gets better after stopping treatment.
- For some people, the treatment can affect their blood and cause problems like:
  - Tiredness from low red blood cells (anaemia)
  - Infections from low white blood cells (leucopenia)
  - Easy bruising from low platelets (thrombocytopenia)

If these problems occur, the medicine doses may need to change or the treatment even stopped for a time.

- If a person already has a mood disorder, like depression, treatment can make this worse. Once mental health is stable, treatment can usually be given with some monitoring of mood.

## LIVING WITH HEP C

If your client is living with hep C, there are some simple things they can do to try to stay healthy:

- blood tests 1–2 times per year to monitor progress
- an ultrasound, or (where available) fibroscan to check progress
- get the vaccination against hep B, and if available, hep A
- minimise alcohol use
- avoid weight gain as a fatty liver can cause liver damage.

Women who have hep C can still become pregnant and breastfeed their infants. Pregnant women should let their doctor know that they have hep C.

## HEP B

Hep B is a blood-borne virus like hep C. Hep B is not as common in people who inject drugs. But, like hep C, hep B can live in the body without people knowing it. Over a long period of time, hep B can cause damage to the liver.

### Hep B vaccination

The good thing about hep B is that it can be prevented. A vaccine, given as three separate injections, is available to protect against getting hep B. The vaccine gives you immunity, which means that you cannot get the virus even if you are exposed. In adults, one injection is given, followed by another one a month later, and a final injection three months later.

Since 2000, all babies born in Australia are vaccinated for hep B. It is important to protect children from this virus, as children are more likely to develop chronic hep B. Most adults that get infected with hep B get rid of the virus without treatment. If a person gets hep B and then ‘clears’ the virus, they cannot be infected again because they are immune.

### Hep B testing

A simple blood test can check if someone has hep B (this is called the HBsAg). The test is free. If someone develops chronic hep B infection, they are at increased risk of liver scarring, cirrhosis, and liver cancer. Chronic hep B can also flare up at different times and make people very sick.

There is also a blood test to check if the vaccine has been successful (called HBsAb). A repeat course of vaccination may be needed in some cases.

## Hep B treatment

The approach to treatment of chronic hep B is complex. Treatment may be weekly interferon injections for one year, or oral medicines taken every day for the rest of the person's life. This treatment is covered by Medicare, so people with chronic hep B should see a liver specialist.

## CIRRHOSIS AND LIVER CANCER

Cirrhosis and liver cancer can develop in people who have had hep C or hep B over many years.

### What is cirrhosis?

Chronic hep C and hep B infection causes irritation and inflammation of the liver. Over time, this irritation causes scarring of the liver. When this scarring becomes severe, it is known as cirrhosis.

Cirrhosis affects the liver's ability to filter toxins from the blood and affects its ability to build proteins that we need. It also makes the liver 'stiff' and this stops blood from draining freely from the gut and through the liver. This then increases the pressure in these blood vessels that drain the gut. This can cause bleeding in the gut, which can show up as vomiting of blood. Cirrhosis occurs in about 1 in 5 people with chronic hep C or hep B.

Early on, many people have no symptoms so they may not realise they have cirrhosis. The symptoms and signs of cirrhosis include:

- Loss of energy
- Yellow discolouration of the skin and eyes (jaundice)
- Swollen belly (ascites)
- Legs swollen with fluid (oedema)
- Poor concentration or confusion (encephalopathy)
- Bruising
- Gut bleeding (portal hypertension and varices)
- Enlarged spleen (splenomegaly) that can be felt by the doctor (for a fuller description of cirrhosis, see Alcohol, p. 73).

## **Liver cancer**

People with cirrhosis are at risk of developing liver cancer (called hepatocellular carcinoma). Hep B is a bit different. People with chronic hep B are at risk of liver cancer even when they do not have cirrhosis. People with cirrhosis or chronic hep B need to start screening for liver cancer when they are about 40 years old. Every six months, they have a blood test (alpha-fetoprotein) and a liver ultrasound. If a liver cancer is found, they need to see a liver specialist.

## **Liver transplant**

Liver transplant is a surgical procedure that involves removing a sick person's liver and replacing it with a liver that someone has donated after they have died. Transplant is an option in clients that are too sick from their own failing liver or in clients with early liver cancer. In Australia, liver disease due to chronic hep C infection is the most common reason for liver transplant. Getting a liver transplant is very difficult. Clients undergo many assessments before going on a waiting list for the surgery. Once the transplant has been performed, the client has to be on medicine for the rest of their life to stop their body rejecting the new liver. Only a few hospitals around Australia provide this type of treatment; it is very specialised.

## **FURTHER READING**

For factsheets and other information about hep C and B see the Hepatitis NSW website. See: [www.hep.org.au/](http://www.hep.org.au/).

Aboriginal Health and Medical Research Council of NSW (2008). *Hep C and us mob: A handbook for Aboriginal people about hepatitis C*. Sydney: Aboriginal Health and Medical Research Council. See: [www.hep.org.au/documents/Us-Mob-4MB.pdf](http://www.hep.org.au/documents/Us-Mob-4MB.pdf).

# HIV/AIDS

## OVERVIEW

AIDS is a severe illness that can develop when a person has been infected with the HIV virus (Human Immunodeficiency Virus). AIDS stands for Acquired Immune Deficiency Syndrome. That means it is an illness that people pick up (or acquire) which interferes with the body's ability to fight off illness. The normal system that defends the body, the immune system, is impaired by the infection. Because of this, illnesses that otherwise would be quite mild can become life threatening. Simple coughs can develop more easily into dangerous pneumonia, and people can get other less common illnesses, with germs that do not usually harm humans. It may take many years for the HIV infection to cause the disease of AIDS. These days there are very good treatments available if a person catches the HIV virus or develops AIDS, so it is important to detect HIV infection early and have good monitoring to see if treatment is needed.

### **HIV is a virus – What does that mean?**

HIV (Human Immunodeficiency Virus) is the virus that causes AIDS. All viruses, including HIV, are so small that you cannot see them unless you look through a very strong microscope. Viruses make the infected person's body produce more copies of the virus. These copies can then be spread to other people, making them infected with the virus too.

Viruses are not easily killed and HIV is no exception. HIV is very different from most other viruses because it can survive in the infected person for a very long time, silently damaging the body's natural defence system against sickness (the immune system). HIV is also very good at escaping the body's natural defences. The immune system rarely, if ever, succeeds at removing the virus from the body (clearing the virus). Because of this, developing good treatments has taken a long time and even better ones may still emerge in the future. At the moment there is no vaccine or cure for HIV.

## **WHAT HAPPENS TO SOMEONE WITH HIV IF IT IS NOT TREATED?**

People living with HIV will eventually get very sick if they do not get treatment. On average it takes about 10 years for the immune system to be weakened so much that it can no longer protect the person from infections. Some people get sick much quicker than that, while some people may still be feeling well more than 20 years after being infected. Because of this, most of the time someone is infected they will look and feel normal. Until they are diagnosed, people will usually not be aware of their infection but they can still be infecting others during unprotected sex or by blood-to-blood contact.

If HIV is left untreated or if treatment is not used properly (e.g. not taking all doses or not staying on treatment) the virus can continue to damage the immune system leading to other infections being able to grow quickly. In that situation the person with HIV can develop pneumonia (lung infection with cough, chest pain, fever and difficulty breathing), thrush (a mouth infection), brain abscess (collection of pus in the brain) and skin infections. People with HIV may also develop lymphoma (a type of immune system cancer), Kaposi's sarcoma (a cancerous tumour with bluish-red or purple bumps on the skin) and anal cancer. Some people just show extreme weight loss as the only sign their immune system is damaged. Although these are severe problems, all of these are treatable and some are curable.

When HIV has progressed to a severe stage, the person is classified as having AIDS.

## **HOW IS HIV SPREAD FROM PERSON TO PERSON?**

HIV stays in an infected person all their life. HIV can then be spread to other people through contact with that person's blood (e.g. through shared needles) or through unprotected sex. You cannot get HIV by just touching. Kissing is a very low risk activity for HIV transmission. But if someone has recently brushed or flossed their teeth or used mouthwash and has open cuts in their mouth, there is a possible risk of HIV transmission. In these cases, kissing should be avoided until the bleeding stops. This may be particularly important in communities where people have poor dental health.

When a man has HIV, the virus is present in the fluids that come from his penis during sex (semen). These can infect the person he is having sex with. The risk of HIV infecting the second person is greater if that person has a STI (sexually transmissible infection), as this can damage their body's surface protection (similar to broken skin but on the inside – this is known as the mucous membrane). In the same way, if the second person has any small cuts or grazes inside their body, the HIV virus can enter more easily.

When a woman has HIV it is less often passed on to her partner. However, if she and a male partner have a STI it is more likely for HIV to be transmitted to this partner.

HIV can also be transmitted from mother to child at the time of birth if the mother is HIV positive. If there were 10 pregnant women with HIV and none were on treatment, around two or three of these women would have their baby born with HIV.

### **How common is HIV in Australia?**

In Australia, most HIV cases are found in men who have unprotected sex with other men. A smaller number of people get HIV through sexual contact with someone of the opposite sex. However, among Aboriginal people, more heterosexuals live with HIV than in the wider community.

For people who inject drugs, sharing injecting equipment increases the risk of being infected with HIV. Fortunately, less than one in 50 injecting drug users have HIV in Australia. Our rates of HIV infection in injecting drug users are far lower than in countries like the USA because Australia provides clean needles to injectors (see NSPs, p. 298).

There is a fear that HIV will affect more Aboriginal injecting drug users because Aboriginal Australians are more likely to share injecting equipment. Also there is a concern that, as Torres Strait Islanders are often in contact with people from Papua New Guinea, the high rates of HIV in Papua New Guinea will start to be seen in the Torres Straits and Cape York.

## **WHAT YOUR CLIENTS CAN DO TO REDUCE THE SPREAD OF HIV**

### **Reducing the spread through sex**

- Condoms are the best way to reduce the transmission of HIV during sex. They are effective in preventing transmission if used properly and used every time.
  - As well as the usual ‘male’ condom, there is a ‘female condom’ that women can use. This is inserted inside their vagina, but unfortunately most pharmacies and supermarkets don’t stock them, though they can be brought in if ordered. Condoms should never be re-used and they should be used with a water-based lubricant that is suitable for their type.
- The prevention or treatment of other sexually transmissible infections (STIs) can also reduce the risk of catching or spreading HIV. So it is important that your clients are tested and receive treatment where needed. Condoms will prevent most STIs.

- People living with HIV need to be aware that they carry the virus, so that if there is an accidental break to a condom or if they have unprotected sex, their partner can receive treatment right away. In this case, their partner would receive antiretroviral medicines for a short period to kill off any virus that may have entered their body before they have a full-blown infection. This treatment is given as a precaution after the person is exposed to the virus and is known as ‘post exposure prophylaxis’ (PEP).
- Using a water-based lubricant or ‘lube’ during sex can help reduce the risk of the condom breaking. It can also help avoid too much rubbing, which can break the partner’s surface protection and let the HIV virus in.
- Some sexual practices are more risky than others. If you are not comfortable discussing safer sex in detail with your client, you can mention the importance of using condoms, and then help them access a sexual health worker. You can mention how important it is to know about safer sexual practices.
- The withdrawal or ‘pulling out’ approach, where a man tries to avoid leaving semen inside his partner, is not reliable as semen starts coming out before climax.

### **Reducing the spread through injecting drug use**

- People who inject drugs need to avoid sharing injecting equipment like needles, syringes, spoons, filters, swabs and tourniquets. As well as the risk of catching or spreading HIV, you can also be infected with hep C or hep B if you share injecting equipment (see Hep C and hep B, p. 302; Harms from injecting and safer injecting, p. 289). Tell clients that, as well as not using other people’s injecting equipment, they should also not pass on their own injecting equipment for others to use. You can give them clean injecting equipment if this is offered at your service, or you can direct them to the nearest Needle and Syringe Program (if available), or to a local chemist that provides equipment (see NSPs, p. 298).

### **Reducing the spread through pregnancy**

- Women who may be infected with HIV should be tested early, so they can receive treatment in pregnancy to protect their baby.
- Occasionally they may need to have the baby delivered by ‘Caesar’ (caesarean section) to protect the baby from becoming infected with HIV. The baby will also receive a brief course of prevention treatment for the first 4–6 weeks of life (in the form of a syrup to drink).

## **HOW ARE PEOPLE TESTED FOR HIV?**

Testing for HIV involves a blood test that looks for the body's attempt to fight off the virus (the specific antibody to the HIV virus). The tests are very reliable. They can detect HIV within the first month of infection in most cases, and within three months of infection in almost all cases. If a test comes back positive, a new test is usually done to make sure the first test was not a mistake.

### **If your client is HIV positive, how are they monitored?**

If your client is HIV positive, they need to be regularly monitored with blood tests (at least four times each year). Two types of tests are done. One measures how much HIV there is in the blood (the viral load). The other is a measure of the number of (good) immune cells still there in the body – known as 'CD4 T-cells'. These tests help doctors choose the right time to recommend starting treatment.

## **HOW IS HIV TREATED AND HOW CAN PEOPLE GET TREATMENT?**

Antiretroviral drugs are the main treatment for HIV. These drugs stop HIV from making more copies of itself or stop it from entering other cells in the body. Many different medicines are used. A combination of three or four medicines is taken each day and treatment needs to be kept up continuously. Some drug companies combine up to three drugs into the same pill to make it easier for people to take. A doctor monitors the person's blood tests to see how the medicines are working. When these medicines work, the HIV viral load usually falls to very low levels and the immune system begins to recover.

The main side effects of treatment depend on the exact drugs given but are usually quite mild. Mild nausea is the most common side effect and generally it settles in the first few weeks of treatment. Those starting medicines for the first time are strongly encouraged to talk with their doctor if they are getting unpleasant side effects from their treatment. If one combination is causing side effects, the doctor will advise a different set of medicines.

Because the treatments are effective and expensive for the government (but not for the patients), prescriptions can only be made by specially trained doctors based in hospital clinics, Aboriginal medical services, general practices (some) and sexual health clinics (most). Medicines are available on the PBS and are free for Aboriginal clients as part of the 'close the gap' initiative.

People with HIV can access mainstream services for support but also many health services have specialised support staff that know a lot about supporting people with HIV. There are specialised services for children through children's hospitals and also information is freely available through the internet ([www.ashm.org.au](http://www.ashm.org.au)).

Because people with HIV can get other severe infections (e.g. in the lungs or brain), sometimes other medicines (e.g. antibiotics) are recommended on a daily basis to prevent these.

### **Why HIV is not a 'death sentence' any more**

When HIV was first discovered in the early 1980s it looked like it would lead to an early death for almost everyone infected. With the success of new treatments, it seems that people who use the best treatments and stay on treatment probably only lose a few years of life. But, for a small number of people, the disease will still progress even if they are treated.

### **WHAT ABOUT LEGAL ISSUES AND HIV?**

HIV testing can only be done if your client consents to being tested. People living with HIV are required by law to tell their sexual partners that they are HIV positive before they have sex. They must allow the other person to decide whether they still want to have sex and under what conditions (e.g. only with a condom). People living with HIV do not legally have to tell anybody else that they are HIV positive. They do not have to tell their employer.

It is illegal to discriminate on the basis of HIV infection, so people with HIV do not lose their rights to care, employment and other benefits. Health care workers need to make sure that they protect the privacy of people living with HIV and that they do not accidentally reveal a person's HIV status to their family, friends or other agencies.

If you as a health care worker have HIV, check the procedures in each state and territory guiding health care workers who are HIV positive. The national registration body for health care workers is updating its guidelines in 2011 (Australian Health Practitioner Regulation Agency – AHPRA). In the meantime, state-based guidelines apply. It is important to make sure that any invasive procedures (e.g. like taking blood) are not risky for clients.

### **FURTHER READING**

See The Australasian Society for HIV Medicine for resources: [www.ashm.org.au](http://www.ashm.org.au).