

The background of the entire page is a vibrant green, filled with numerous microscopic, spiky virus particles. These particles are spherical with a textured, bumpy surface and several sharp protrusions extending from their outer edges. They are scattered across the frame, with some appearing larger and more prominent than others, creating a sense of depth and density. The overall effect is that of a microscopic view of a viral infection.

Drugs & Bugs

A guide to injecting drug use and infections

Updated



Drugs & Bugs:

A guide to injecting drug use and infections **Updated**

This booklet is a guide for people who inject drugs. It covers a range of infections including hepatitis C, hepatitis B, hepatitis A, HIV and some other infections. The main aim of the booklet is to outline ways to avoid contracting these infections, so there are sections on how to use and inject drugs more safely. The booklet also covers some general drug use issues and includes information on drug treatment.



Hepatitis

Hepatitis means inflammation (swelling) of the liver. The liver is a large organ which sits just below the ribs on the right side. The liver helps to remove waste products from the body. Viruses which affect the liver are the major causes of hepatitis. The main three viruses that affect the liver are hepatitis A, hepatitis B and hepatitis C. There is also hepatitis D and hepatitis E, although these are less common. Each of the viruses are different and getting one virus does not automatically lead to another.

- **Hepatitis viruses affect the liver**
 - **There is hepatitis A, B, C, D and E**
- 

Hepatitis C

The hepatitis C virus was discovered in 1988, though it has been around since at least the 1970s. About 264 000 Australians are infected with hepatitis C, representing approximately 1% of the Australian population. Most of these (almost 90%) have injected drugs at some time in their lives.

There are different strains of the hepatitis C virus. Some strains are harder to treat than others and you can contract more than one strain of the same virus. It is also possible to contract the same strain more than once.

- **About 264 000 Australians have hepatitis C or about 1% of Australians**
- **You can contract more than one strain of hepatitis C**
- **You can contract the strain again**



How is hepatitis C spread?

Hepatitis C is passed on by blood-to-blood contact. This means that the blood from an infected person needs to get into your blood stream for you to contract the virus. The most common way to get hepatitis C is by sharing injecting equipment (that includes the needle, syringe, swab, tourniquet, spoon, water, and filters). It is really important to be 'blood aware' and avoid all blood-to-blood contact. So never share any injecting equipment.

- **Hepatitis C is spread by blood-to-blood contact**
 - **Sharing injecting equipment can spread hepatitis C**
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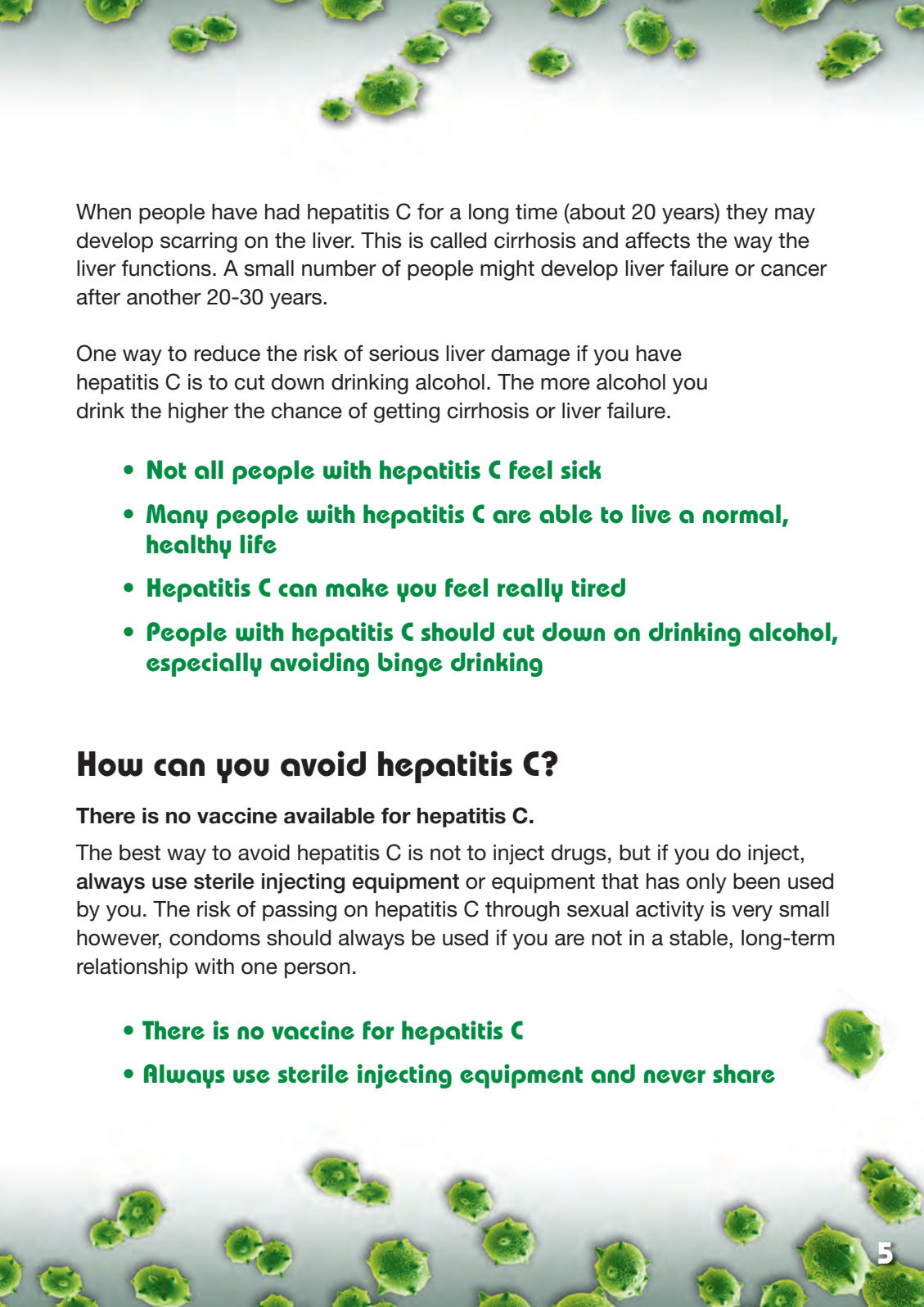
How do you know if you have hepatitis C?

Many people who have hepatitis C do not get symptoms for some years. A doctor can do a blood test to see if you have antibodies to hepatitis C. If you have hepatitis C anti-bodies then you have been exposed to the virus. You need another test called PCR, which you might need to pay for, to find out if you actually still have the virus. Most people who test positive to hepatitis C anti-bodies find that they still have the virus.

- **A blood test can determine if you have been exposed to hepatitis C**
- **A PCR test can determine if you still have the virus**

How does hepatitis C affect you?

Most people with hepatitis C remain well for years. Some people notice symptoms early on, such as tiredness, upset stomach or pains around the stomach. The most common symptom is feeling tired.

A background image showing a microscopic view of liver cells, which are green and have a bumpy, irregular surface. The cells are scattered across the page, with a higher concentration at the top and bottom edges.

When people have had hepatitis C for a long time (about 20 years) they may develop scarring on the liver. This is called cirrhosis and affects the way the liver functions. A small number of people might develop liver failure or cancer after another 20-30 years.

One way to reduce the risk of serious liver damage if you have hepatitis C is to cut down drinking alcohol. The more alcohol you drink the higher the chance of getting cirrhosis or liver failure.

- **Not all people with hepatitis C feel sick**
- **Many people with hepatitis C are able to live a normal, healthy life**
- **Hepatitis C can make you feel really tired**
- **People with hepatitis C should cut down on drinking alcohol, especially avoiding binge drinking**

How can you avoid hepatitis C?

There is no vaccine available for hepatitis C.

The best way to avoid hepatitis C is not to inject drugs, but if you do inject, **always use sterile injecting equipment** or equipment that has only been used by you. The risk of passing on hepatitis C through sexual activity is very small however, condoms should always be used if you are not in a stable, long-term relationship with one person.

- **There is no vaccine for hepatitis C**
- **Always use sterile injecting equipment and never share**



Is there treatment for hepatitis C?

Treatments for hepatitis C are available and success varies between people. The main treatment is Interferon and Ribavirin, which may get rid of the virus in about half of those who have this treatment. This treatment can have bad side effects. Herbal and complementary therapies are also available. A doctor can help you decide which treatment is right for you.

- **Treatments are available for hepatitis C, see your doctor or call the Hep C Helpline for more information (see back page)**
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Hepatitis B

Hepatitis B is a virus that affects the liver. It is a different virus to hepatitis C, which means you can have both hepatitis B and hepatitis C. It is difficult to know how many people who inject drugs have had hepatitis B, but it is probably about half.

How is hepatitis B spread?

Hepatitis B is passed on through blood-to-blood contact and via some body fluids. Hepatitis B can easily be passed on by sharing injecting equipment. Hepatitis B can also be transmitted through sexual activity.

- **Hepatitis B is spread by blood and sexual activity**

How do you know if you have hepatitis B?

You can have a blood test for hepatitis B. Any doctor can do this test.



How does hepatitis B affect you?

Most people who have hepatitis B will become sick, and develop short-term symptoms such as tiredness, nausea, abdominal pains and jaundice (yellowing of the skin and eyes). For some people the symptoms may be mild.

Generally the body is able to get rid of the virus, but for about 1 in 20 people the virus remains and they have a 'chronic' or long-term infection. These people have an increased risk of liver damage and liver cancer and they can continue to pass the infection on to other people.

Treatments for hepatitis B are available. Talk to your doctor or local sexual health clinic.

- **Most people who get hepatitis B will have short-term symptoms**
- **1 in 20 people who get hepatitis B will have a long-term infection**

How can you avoid hepatitis B?

1. **Get vaccinated against hepatitis B**
2. **Always use sterile injecting equipment and never share injecting equipment**
3. **Always practice safer sex – using condoms**



Hepatitis B Vaccination

The National Health and Medical Research Council recommend that anyone who injects drugs and has never had hepatitis B in the past should be vaccinated against hepatitis B.

Your doctor can vaccinate you against hepatitis B or if you wish, you may go to a sexual health clinic. Some drug treatment clinics will also vaccinate you. In some states you may be vaccinated against hepatitis B for free.

Vaccination for hepatitis B is a course of three injections over six months. For the vaccine to be effective you need to make sure you get all three shots. Three months after the last injection you will need to return to your doctor for a test to see if the vaccine has worked.

The vaccine is safe and rarely has side effects.

- **Anyone who injects drugs should get vaccinated against hepatitis B**
- **You can get free vaccinations in some states of Australia**

Hepatitis D

Hepatitis D is another virus that causes hepatitis. You can get hepatitis D only if you already have hepatitis B. It can cause worse liver disease than having hepatitis B alone. It is another good reason to get the hepatitis B vaccination.

- **You can get hepatitis D only if you also have hepatitis B**



Hepatitis A

Hepatitis A is another hepatitis virus different to both hepatitis B and hepatitis C. People who inject drugs may be at risk of hepatitis A and a number of outbreaks have been reported among injecting drug users.

How is hepatitis A spread?

Unlike hepatitis B and hepatitis C, hepatitis A is transmitted via fecal-oral contact. Hepatitis A is found in the faeces of infected people and is usually spread by eating and drinking contaminated food and water or by close personal contact with an infected person.

How do you know if you have hepatitis A?

You can have a blood test for hepatitis A. Any doctor can do this test.

How does hepatitis A affect you?

Symptoms of hepatitis A can vary between mild and severe. They include vomiting, stomach pain and jaundice (yellowing of the skin and eyes). The infection usually lasts for about four weeks, and there are generally no symptoms during the first 2 weeks. Most people recover and develop immunity so will not get hepatitis A again or pass it on.

Anyone who becomes infected with hepatitis A when they already have hepatitis C may have a higher risk of liver failure.

- **People who inject drugs are at risk of hepatitis A**
- **Hepatitis A can be very serious, especially for people who already have hepatitis C**

How can you avoid hepatitis A?

A good way to prevent hepatitis A infection is to always wash your hands after going to the toilet and before eating or preparing food. Using dental dams during oral-anal sex can help prevent the spread of hepatitis A.



Hepatitis A vaccination

A vaccine is available for hepatitis A. If you inject drugs it is a good idea to protect yourself against hepatitis A by getting vaccinated. If you come into contact with someone with hepatitis A and haven't had the vaccine, you should see your doctor straight way.

- **People who inject drugs should get vaccinated against hepatitis A**



HIV

HIV (human immunodeficiency virus) is the virus that causes AIDS (Acquired Immune Deficiency Syndrome).


How is HIV spread?

HIV is spread via blood and some body fluids. The most likely ways of getting HIV are through blood-to-blood contact and unprotected sex. Anyone who injects drugs is at risk of HIV if they share injecting equipment.

- **HIV can be spread by sharing injecting equipment and some kinds of sexual activity**

How do you know if you have HIV?

A doctor can test for antibodies to HIV. If someone tests positive it means they have HIV, it does not necessarily mean that they have AIDS.

- **You can have a blood test to see if you have HIV**
 - **If someone has HIV it does not necessarily mean they have AIDS**
- 

How does HIV affect you?

HIV attacks the immune system – the body's defence against disease. This means it is much easier for the person to become sick from infections that usually wouldn't hurt them. HIV can lead to AIDS.

- **HIV/AIDS attacks the body's immune system**

How can you avoid HIV?

There is no vaccine against HIV. You should always use a sterile fit and never share injecting equipment. Practise safer sex - use a condom every time.

- **There is no vaccine against HIV**
- **Never share injecting equipment**

Is there a treatment for HIV?

There is no cure for HIV, but there have been some big improvements in treatment. A combination of very strong drugs is now being used. Most people with HIV who take these drugs live longer and have a better quality of life.

Treatments to prevent an infection after someone has been exposed to the HIV virus are called Post-Exposure Prophylaxis (PEP). PEP consists of the administration of 2 or 3 antiretroviral HIV medications for 28 days. PEP is likely to be most effective when started as soon as possible after exposure to HIV but can be commenced up to 72 hours after. Some people experience unpleasant side-effects from PEP. **If you think you have been exposed to HIV, see a doctor as soon as you can about PEP.**

- **Treatments for HIV/AIDS can extend peoples lives**
- **If you think you have been exposed to HIV, see a Doctor as soon as you can about PEP**



Pre/post test counselling

Before you are tested for any of the infections mentioned in this booklet, you should be provided with pre- and post-test counselling by your doctor or the person doing the test. This means everything should be fully explained to you before the test is taken, including what the results might actually mean. The person taking the test should also discuss what effect a positive test might have on your life.

The results of the test should be fully explained to you. If you test positive, you should receive advice on what to do next. If you test negative, you should receive information on how to prevent becoming infected in the future.

If you are not happy with the answers provided, then ask for more information. Referral to a counsellor is important.

- **Before having a test, everything about it should be fully explained to you**
- **After receiving test results, what the results mean for you should be fully explained**



OTHER BUGS

Abscesses and cellulitis

Abscesses (sores) and cellulitis (skin inflammation) are two problems affecting the skin. Methicillin resistant staphylococcus aureus (MRSA) or “golden staph” is a common cause of infection around injecting sites. Often abscesses look like pus filled sores and can leave nasty scars.

Septicaemia (blood poisoning)

Septicaemia occurs when bacteria enter the bloodstream and cause a serious infection. Usually the bacteria are ones found on the skin. Cleaning the skin with alcohol wipes and using sterile equipment may reduce the chances of developing septicaemia. Development of septicaemia is serious as it can cause kidney failure and shock. One of the early signs of septicaemia is a fever and feeling unwell. If you have these symptoms see your doctor.

Endocarditis

Endocarditis is the name for an infection of the heart valves. It does occur in injecting drug users as bacteria easily gets into the blood-stream while injecting and can travel to the heart valves.

Symptoms of endocarditis can include fever, weight loss, rashes, pains in the stomach, breathlessness or joint pains. Endocarditis is very serious and can cause heart failure and sometimes death. Washing your hands before injecting, swabbing the injecting site with alcohol and using sterile injecting equipment can help prevent endocarditis and other infections. Poor dental hygiene can also lead to endocarditis, so remember to brush your teeth regularly.



Water-borne infections

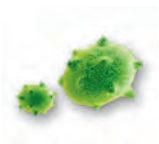
Tap and bottled water can carry bacteria that can cause serious infections. If you use contaminated water to inject, bacteria can get into the blood-stream and cause septicaemia. Always use sterile water for injecting drugs.

Dirty hits

Dirty hits are caused by dirt and other contaminants found in drugs. Drugs become contaminated when they are 'cut', handled and when the 'mix' is prepared. Some dirty hits are caused by bleach and detergent residue remaining in the fit after cleaning, so always be sure to rinse well or use sterile equipment.

Dirty hits can cause vomiting, shaking, headaches, fevers and sweating. Seek medical help if you notice your arm (or other injecting site) swelling up.

How to avoid bacterial infections

- 
- **Wash your hands**
 - **Don't share injecting equipment**
 - **Use alcohol wipes to clean the skin where you are injecting**
 - **Use sterile water or boil it if you can't get sterile water**
 - **Cover the injection site with a bandaid**
 - **Brush your teeth and see a dentist for regular check-ups**



Sexually transmissible infections (STI)

Some infections can be spread by sexual activity. Safer sex practices reduce the risk of sexually transmissible infections. Using condoms for vaginal and anal sex, and dental dams for oral sex and rimming, are effective safer sex practices. Condoms and dental dams help to stop body fluids passing from one person to another.

It is possible to have an STI without knowing. This is because some symptoms, particularly in women, are not always very obvious. People who have many sexual partners or are sex workers should have regular check-ups for STIs.

- **Some infections are spread by sexual activity**
- **It is a good idea for people who have many sexual partners or are sex workers to have regular check-ups for STIs**

Symptoms that you should see a doctor for:


- **Fever**
- **Yellow eyes or skin and dark coloured urine**
- **Weight loss**
- **Pain, redness or swelling near injecting sites**
- **Skin rash, sore throat and enlarged glands**
- **Painful joints**

It is important not to leave the symptoms of infection untreated as your health could rapidly deteriorate.



AVOIDING BUGS

Get a new fit!

- **Needle and Syringe Programs (NSP)** are places where you can get fits and other injecting equipment for free. You should also dispose of your used fits at the NSP or safely at home. NSP staff can help you with a range of issues and give you information on blood-borne viruses and treatment services, condoms and lubricant
 - You can also get new fits from most pharmacies
 - Ask at hospitals or find out where the fit pack vending machines are located
 - Ring ADIS for information about where to get clean fits (see contacts list on back cover)
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Tips for safe injecting

1. **Always use clean fits and never share.** If you can't get a new fit, clean an old fit that only you have used, using the guide below. If you are unable to do this try using another way, such as smoking or snorting.
2. **Rotate the injection site.** Don't continually inject into the same vein. Choose a couple of good sites and rotate them for each hit.
3. **Never inject below the waist, this can be really dangerous.**



Tips for safe injecting (cont)

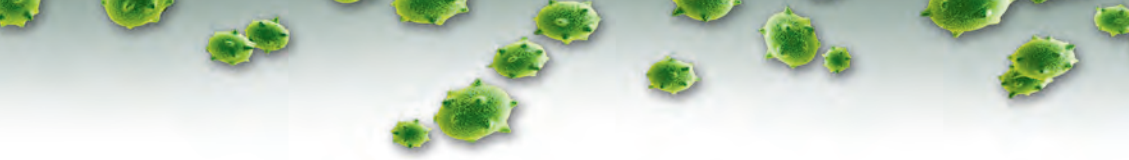
- 4. Always use a tourniquet** It is a good idea to get a tourniquet from a NSP or buy a tourniquet from a chemist and keep it for your use only. Infections may be passed on by sharing tourniquets as blood can get onto them, so always use your own tourniquet. If you don't have a tourniquet, use something that can be easily released, and be sure no one has used it before you. The tourniquet should only be on for a very short period – less than 1 minute.
- 5. Always use swabs to clean the site before injection.** Swab once down - not up and down. This will reduce the risk of bacteria and other bugs, which can cause septicaemia and abscesses, from getting into your blood. When you withdraw the needle from the vein, apply some pressure to the site with clean cotton wool or a tissue. Avoid using an alcohol swab as this prevents blood at the injecting site from clotting. Cover injecting site with a bandaid.
- 6. Filters:** If possible, use a sterile pill or 'wheel' filter (available at pharmacies and some needle and syringe programs). Don't use cigarette filters as they contain small fibres which can cause damage to your veins. Some people try using bits of cotton wool or a corner from a swab. Do not reuse the filter.
- 7. Try to always use sterile water for mixing.** If you can't use sterile water, use water that has been boiled and then cooled or still (flat) bottled water. Never use fizzy bottled water as injecting the bubbles can be dangerous. Never use lemon juice to dissolve the drug as it can carry harmful bacteria. Citric acid is available from some needle and syringe programs to help you prepare the mix.



What to do if you don't have a new fit

Cleaning fits It is best to always use a sterile fit every time you use. If you can't get a clean fit try using your drug another way such as smoking. If you are unable to do this then clean and reuse a fit which only you have used. Do not use a fit someone else has used – there is no way you can be sure that you have killed all of the viruses that may have been in the syringe. If you have to reuse your old fit, the Australian IV League recommends the best and safest way to clean it is:

1. Wash your hands with soap and water
2. Get a clean container filled with cold tap water
3. Add a little soap or detergent. Do not use hot, warm or chilled water as tiny amounts of the blood in the fit might get stuck in the syringe
4. Rinse the fit by drawing up the water into the syringe and then squirt out the water. Keep doing this until there is no sign of blood in the syringe
5. Empty the water down the sink and put the container in the bin (or somewhere where others won't get it as it could be infected)
6. Take another container and fill with full strength bleach
7. Take the fit apart and soak it in the bleach. Make sure all parts of the fit are covered with bleach
8. Let it soak for two minutes or more (If you can't soak the fit, draw the bleach up into the syringe and shake for 30 seconds or longer)
9. Squirt out the bleach and repeat Step 8 at least one more time

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10. Take another container, not used before, and fill with cold water from the tap. Draw-up this clean water into the fit and then squirt out the water in to the sink, drain or bin. You should do this six or more times.

Non-injecting routes of administration (NIROA)

Injecting a drug is the riskiest way to use as it increases the chances of getting or spreading infections such as hepatitis and HIV. Injecting drugs also increases the likelihood of overdose. Some alternatives to injecting drugs include smoking (e.g., ‘chasing the dragon’, using a pipe) snorting, swallowing and shafting (e.g., inserting the drug into the anus).

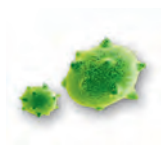
- 1. Chasing the dragon:** use a small square of aluminium or tin foil (don’t use foil from cigarette packets). Heat both sides of the foil, place the drug on the dull side, and then use a lighter to heat the under side of the foil – move the flame around so that the drug burns evenly. Use a drinking straw (you can use a number of things including rolled up \$ notes) to suck in the fumes when the drug starts to burn.
- 2. Smoking:** you can also smoke your drug by using joints and bongs.
- 3. Snorting:** use a short straw, rolled up \$ note or similar smooth surface object. Snort and swallow.
- 4. Shafting:** mix-up the drug then draw it up into a syringe without the needle. Insert the tip of the syringe (no needle) into your anus and squirt in the drug.
- 5. Swallowing:** mix the drug in water or cordial and drink it.

Seeking medical advice

If anyone overdoses or is seriously ill dial 000 to call an ambulance immediately. Police are not called to an overdose unless it is dangerous for the ambulance officer. Stay calm and call 000.

Treatment for drug problems

The best way of avoiding bugs is by quitting drug use. There are a number of treatments that can help you do this, including methadone maintenance treatment, rehabilitation and Narcotics Anonymous (NA). There are also some other, new treatments. See the back of this booklet for a phone number which can give you more advice.



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