

The **Safer** **Injecting** Handbook



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Tenth edition

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Written by:
Andrew Preston
and Jon Derricott

Published by: Exchange Supplies
Illustrations: Michael Linnell
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ISBN 0 9520600 9 4
The Safer Injecting Handbook. Tenth edition

Illustrations on pages 12 and 13 were adapted from Zule WA, Pande PG, Des Jarlais DC, et al. (2018). Options for reducing HIV transmission related to the dead space in needles and syringes. *Harm Reduct J*, 15(1), 3. doi:10.1186/s12954-017-0207-5, and Kesten JM, Ayres R, Neale J, et al. Acceptability of low dead space syringes and implications for their introduction: a qualitative study in the West of England. *Int J Drug Policy* 2017;39:99-108 with special thanks to the needle and syringe programmes and service users that participated.

**Available from exchangesupplies.org
Code: P303**

Exchange Supplies is an independent publisher of information about drugs, drug use and treatment. Exchange publications aim to give people who use drugs the information they need to make informed choices about their drug use, in an easily readable and accessible format.

For more information go to: exchangesupplies.org

The Safer Injecting Handbook is regularly updated and revised. If there are any comments or suggestions you would like to make, please send them to:

Andrew Preston, Exchange Supplies,
1 Great Western Industrial Centre,
Dorchester, Dorset DT1 1RD
or andrew@exchangesupplies.org



**This is the National
Needle Exchange Symbol.**

Free confidential needle
exchange wherever you
see this sign.

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Introduction

This handbook has been written for people who are injecting drugs.

There is no completely safe way of injecting drugs. Injecting a drug (rather than smoking, swallowing or sniffing it) carries a greater risk of overdose, vein damage and infection. However, if you are going to inject, using the **information in the handbook can help you reduce the risks you are taking.**

A handbook is not a substitute for talking things through. If there is anything you are not sure about, or if you have any problems, questions or worries, talk them over with your drug worker, needle exchange worker, or GP.





Needle exchanges

Free needle exchange services exist all over the country – most drug agencies have one and many pharmacies offer them too.

Most are anonymous and all are confidential. When you use them, get enough syringes to last until you can get back plus some extras for friends and emergencies.

Needle exchanges have two functions: to give out sterile injecting equipment and to provide a safe place to dispose of used works.

In the UK you can get clean equipment at most exchanges without returning used works. However, the public fear of finding used works is great, so **please take back your used works in the sharpsafe container they give you.**

The risks

The main risks you can expose yourself to when injecting are:

- hepatitis infection;
- HIV infection;
- overdose;
- vein damage; and
- infection from bacteria.

People who inject also tend to be more dependent on drugs than people who don't. So switching away from injecting has lots of benefits.



Alternatives

It is possible to avoid the risks by not injecting:

- heroin can be smoked or sniffed;
- cocaine can be sniffed or smoked as crack; and
- amphetamines can be swallowed or sniffed, methamphetamines can be smoked.

This will do far less damage to your body – you get almost the same dose and the effects last longer.

If you are having trouble finding veins or are using high-risk injecting sites, you might want to consider injecting **(without the needle!)** up your bum – **UYB**.

The drugs are prepared in the same way as they would be for injecting, but you put the syringe a very short way into your bum and gently squirt.

Many people find that this gives them a hit **similar to injecting** – and it is **much** less risky than using high-risk sites.

Finally, if you are an opiate user, getting into treatment makes a big difference. People who get prescribed drugs usually find they are able to greatly reduce or stop injecting.

If you are going to inject, read on to find out how to take as much risk as possible out of the injecting process...



Top 5

This handbook aims to help you inject with the minimum risk of:

1. catching a blood-borne virus;
2. overdose;
3. vein damage;
4. infection from bacteria that get into the blood; and
5. passing any infection you may have to others.

The next six pages cover these issues in detail. The rest of the handbook contains all the other information you need to know too.

1 Avoiding viral infections

A virus is a tiny organism that can live within body cells. If enough blood cells containing viral particles pass into your bloodstream then you will become infected.

You can avoid this by preparing and giving the injection carefully, making sure that when the needle goes into your vein, **nothing you are injecting with could possibly have been contaminated by a drop of someone else's blood** (even one that was too small to see).

Re-used syringes are the main cause of hepatitis and HIV infection in injecting drug users. Cleaning with bleach works (see inside back cover). If you can, use a new sterile syringe every time. If you have to re-use a syringe, always clean it as well as you can.

The best protection is to get all this equipment from the needle exchange, so you are using new, sterile stuff every time. If you can't, clean everything before and after use – and never share.



If you were to magnify the hep C virus to the size of a marble, a syringe at the same scale would be 75 miles tall!



Hepatitis and HIV

During injecting, the hepatitis viruses and HIV can be transmitted when infected blood is passed into the bloodstream of another person.

These viruses have been around for a long time, so people who haven't shared for 10 years or more may still be carrying a viral infection and not have any symptoms, so everyone who has injected should have a test for hepatitis C.

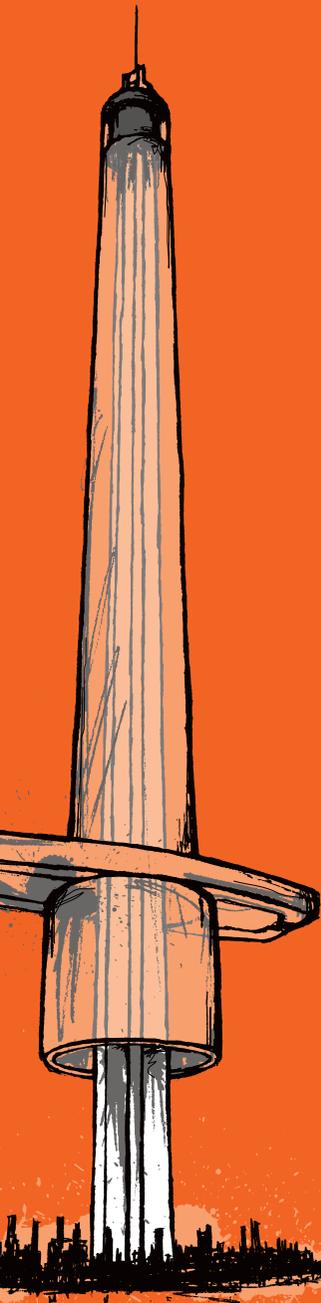
Re-used syringes are the main source of hepatitis and HIV infection in people who have injected drugs. Cleaning with bleach works (see inside back cover). If you have to re-use a syringe, always clean it as well as you can.

The more often you expose yourself to tiny amounts of infected blood, the greater the risk of infection.

HIV and hepatitis B are also sexually transmitted because the virus is found in semen and vaginal fluid, so using condoms and practising safer sex can protect you from these diseases as well as preventing pregnancy.

For support and more information contact:

- **Hepatitis C Trust**
Tel: 020 7089 6221
hepctrust.org.uk
- **Terrence Higgins Trust**
Helpline: 0808 802 1221
ttht.org.uk
- **NAZ**
Tel: 020 8741 1879
naz.org.uk
- **i-base**
Tel: 020 8616 2210
i-base.info
- **Positively UK**
Tel: 020 7713 0444
positivelyuk.org



Dead space in syringes

Using a new sterile syringe for every injection stops transmission of blood-borne viruses.

Because we still don't give out enough syringes, it is important that everyone who injects knows that the more blood that is in a syringe that is being re-used, the greater the risk of a blood-borne virus being passed on.

This is because more blood means that people get a bigger 'dose' of virus, **and** longer viral survival.

Using syringes with the lowest possible dead space reduces the risk of blood borne virus transmission.

Cleaning syringes after use, and before re-use especially if done with bleach (see inside back cover) kills any viruses that are in the syringe.

Dead space compared

Less space = less risk



LOW DEAD SPACE SYRINGE

Fixed all-in-one needle and syringe

3µL



LOW DEAD SPACE NEEDLE

Detachable needle*

15µL

LOWEST RISK

* Low dead space detachable needles **do not** fit on Prenoxad kits (Naloxone) and some other barrels.



**HIGH
DEAD SPACE**

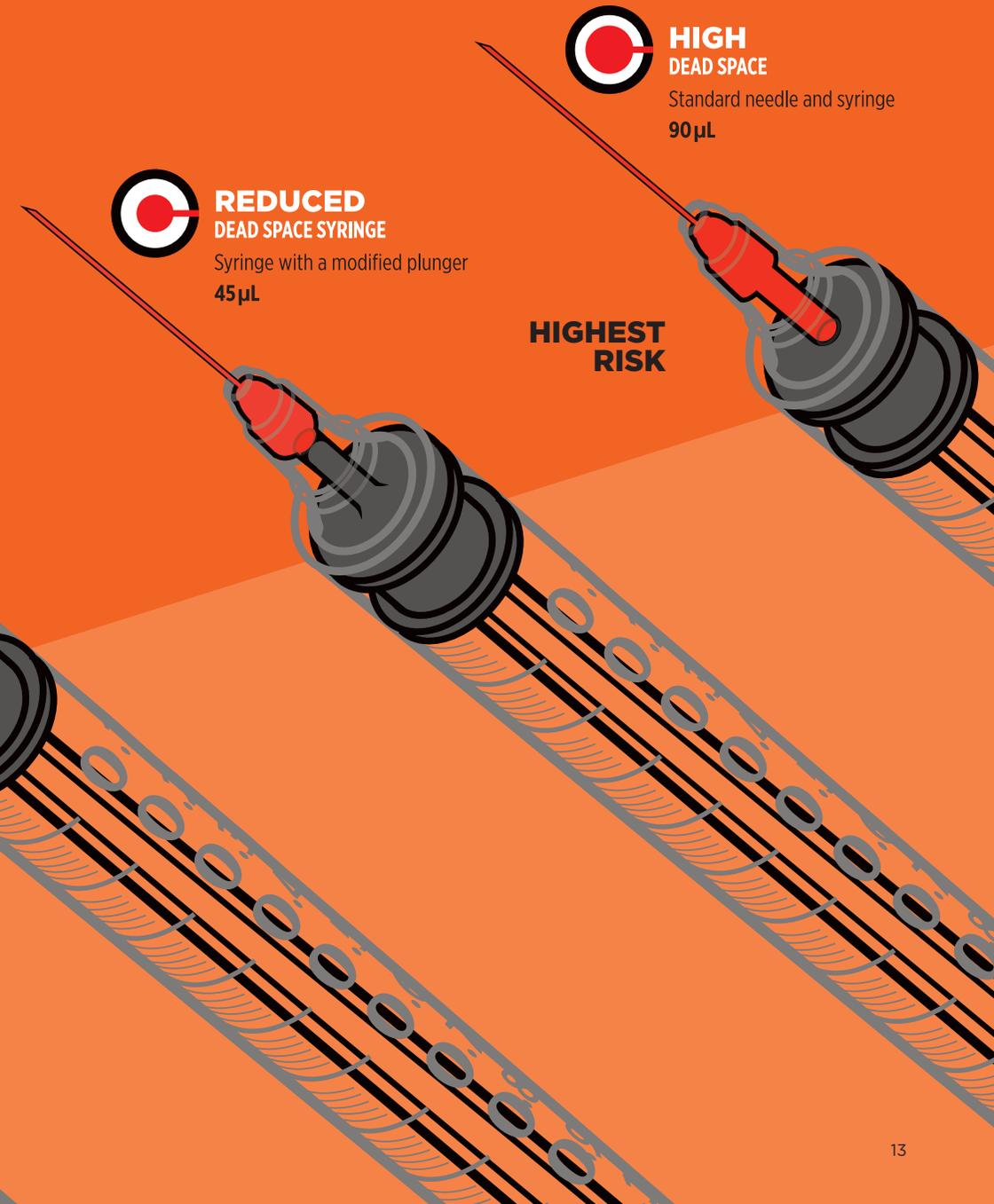
Standard needle and syringe
90 μ L



**REDUCED
DEAD SPACE SYRINGE**

Syringe with a modified plunger
45 μ L

**HIGHEST
RISK**



2 Avoiding overdose

You don't have to take a lethal dose of drugs to die of an overdose – it only takes a tablespoonful of fluid to kill you if you are on your back, unconscious and unable to swallow! This has been the cause of many overdose deaths.

Usually overdose deaths are caused by people mixing sedative drugs such as:

- alcohol;
- temazepam;
- diazepam (Valium);
- methadone; and
- heroin

These drugs can work together making each other stronger. With these drugs it's like **2+2=5**.

Remember that drugs you swallow reach peak levels between one and four hours after you take them, so an injection can push you over the lethal limit hours after taking something by mouth.

Another cause of many overdoses is going back to opiates after being 'clean' for a while. If you stop using drugs (especially opiates), your tolerance drops quickly. **So, if you go back to injecting as much as you were, it could kill you.**

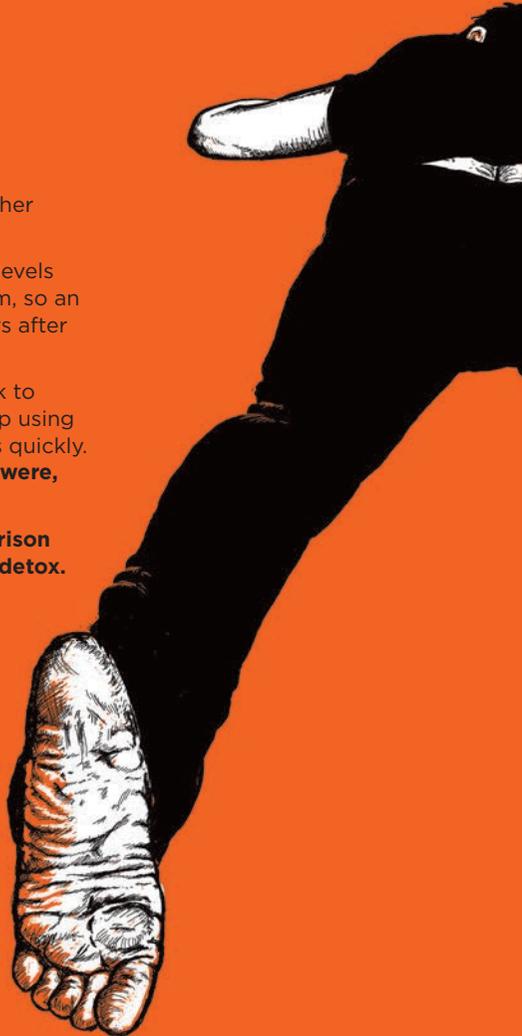
People at higher risk are those coming out of **prison** and people relapsing after a spell in a **rehab** or **detox**.

You can reduce the risk of overdose by:

- **not injecting**, but smoking, snorting or swallowing instead;
- **taking a test dose of drugs** to get a feel for the strength;
- **only injecting half of the barrel** and waiting until you get the first rush; and
- **not mixing drugs** – especially alcohol and heroin.

You can reduce the risk of overdose being fatal by:

- **learning how to deal with overdoses when you see them happening** – see page 44; and
- **having other people around when you inject.**



3 Avoiding vein damage

To do everything possible to reduce vein damage you need to understand about:

- **circulation** (see page 25);
- **veins and arteries** (see pages 26–28);
- **finding a vein** (see page 29);
- **injecting sites** (see pages 36–41); and
- **how veins collapse** (see page 30).

Having found a safe site and prepared your drugs for injecting in a hygienic way, it is important to use the smallest needle you can. The smaller the hole, the less damage to the inside of a vein – and the longer it will last.

Put the needle into the skin parallel to the vein (with the tip pointing in the same direction as the blood flow – see below) and then slide it into the vein, taking care to make sure you don't go straight through it.

Pull back a little to check you are still in the vein. If you are using a tourniquet, release it and then inject slowly – the faster you inject the greater the risk of tearing the vein around the needle and of fluid escaping around the needle.

Once you have finished injecting, slide the needle out of the vein straight away and apply pressure to the site. This prevents bleeding and bruising.

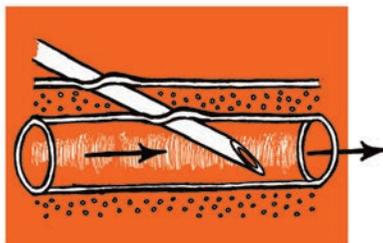
All the drug is then out of the syringe – pulling blood back into the syringe and **'flushing'** it back into the vein doesn't help and **it can cause extra damage to the vein by:**

- **making the entry hole bigger;**
- **damaging the lining of the vein;** and
- **causing extra clotting of blood and vein blockage by increasing turbulence;**

and it doesn't get anything extra out of the syringe.

Needle correctly inside a vein

Direction of bloodflow



4 Avoiding infection from Bacteria

Bacteria are everywhere – in the air, on our skin and on surfaces. Our skin usually protects us from them but injecting provides a direct route for bacteria into the body.

Anything you use in the injecting process that isn't labelled 'sterile' may be contaminated by bacteria.

If you **wash the injection site with soap and water** before you start it will reduce the number of bacteria on your skin and reduce the risk of infection.

If you use an alcohol swab, rub it over the injection site once, in one direction, and allow the alcohol to dry in the air before injecting.

Every time the needle goes through your skin it picks up bacteria. **If you have difficulty finding veins and often can't get a vein on the first attempt, it would be worth getting syringes with detachable needles from your needle exchange so that you can change the needle between attempts to find a vein.**

There isn't much you can do about the bacteria (or chemicals) in illicit drugs – it is a risk injecting things that aren't manufactured in sterile conditions.

It is important to reduce the number of bacteria that can get into your system. The fewer there are, the greater the chance that your system will be able to fight them. There is more information about bacterial infections on page 23.

Keeping drug filters is asking for trouble – the number of bacteria that grow in them can be huge!

Licking the needle during the process of injecting transfers millions of bugs onto the needle – which then get injected into you! It is probably a major cause of injecting site infections.

Water

Water can contain bacteria. Boiling it in the spoon will not sterilise it.

All the water that you buy from shops labelled 'distilled' or 'spring water' or 'pure water' is not sterile - it will probably contain more bacteria than tap water.

The best water to inject with is a newly opened ampoule of sterile water for injection. All unused water from an ampoule should be thrown away because as soon as the lid is off, bacteria from the air can get in and start to grow.

Next best is water that has been recently boiled in a kettle - this will kill bacteria, and is cleaner than anything you can buy in a bottle.



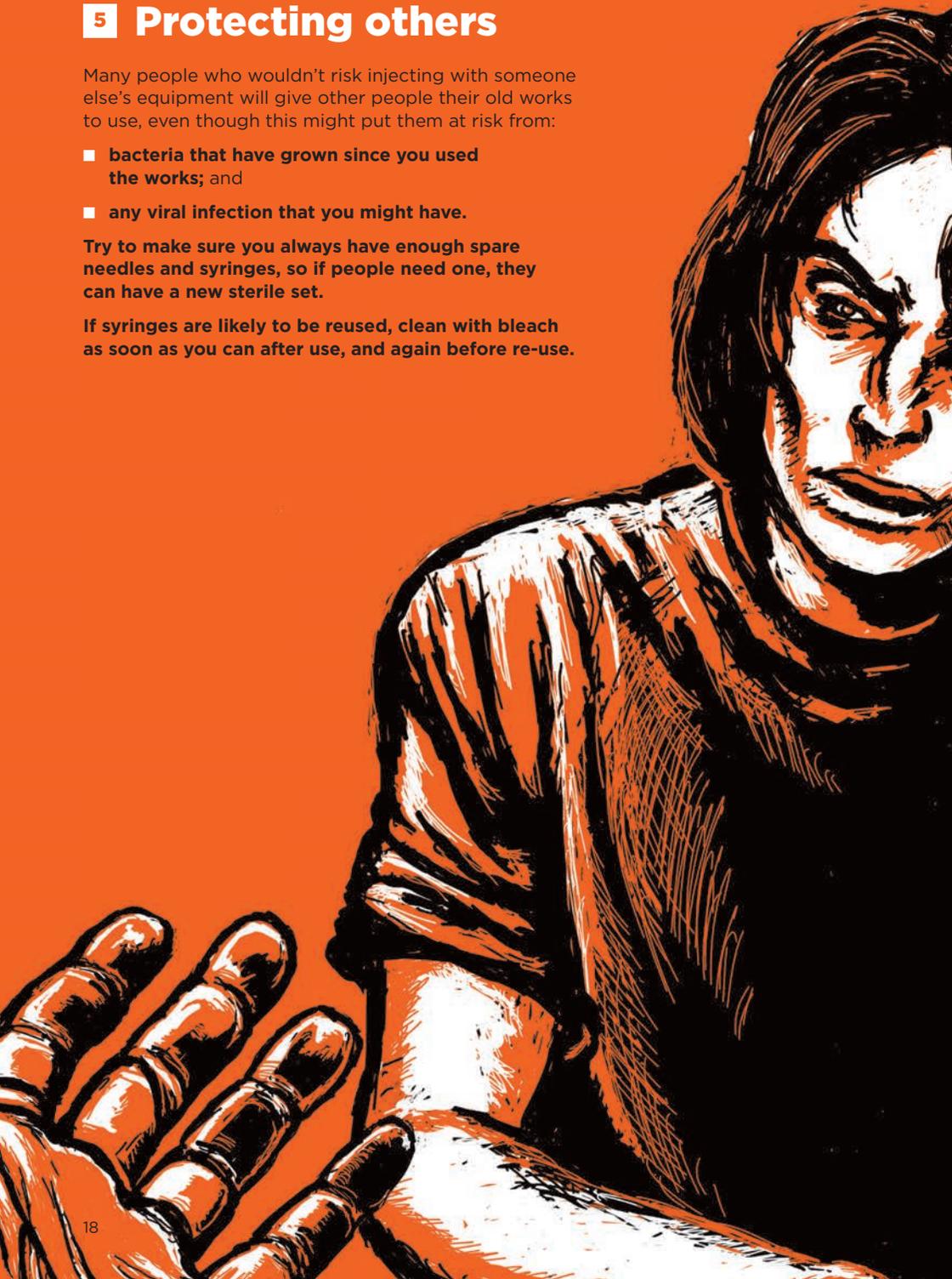
5 Protecting others

Many people who wouldn't risk injecting with someone else's equipment will give other people their old works to use, even though this might put them at risk from:

- **bacteria that have grown since you used the works;** and
- **any viral infection that you might have.**

Try to make sure you always have enough spare needles and syringes, so if people need one, they can have a new sterile set.

If syringes are likely to be reused, clean with bleach as soon as you can after use, and again before re-use.





Break the cycle

Most people who inject wish they'd never started injecting and only a few want to encourage others to take it up.

If you don't want to encourage others to start injecting then there are things you can do to make sure you don't contribute to someone's decision to do so:

- **try not to talk about injecting with people who don't inject** or when people who don't inject are around. If you do discuss it, think carefully about how you talk about it because even when you give a balanced account of the pros and cons, people just hear the good bits and think that the bad bits only affect other people;
- **try to ensure that as few people as possible who don't inject know that you inject;**
- **avoid fixing in front of people who don't inject** as seeing someone do it often makes people realise it is not as scary as they had thought;
- **talk about your views with other people who inject to see what they think;** and
- **think back to when you started injecting and try to avoid putting people who don't inject in the situations that led you to start injecting.**

Very often, when people start to inject they ask an experienced person who injects to do it for them. Being asked to do this can be difficult.

You can reduce the problem of unwanted requests to initiate someone by:

- **thinking about what it will mean to you (and them) in the future if you do give them their first hit;**
- **being very clear in your own mind about whether you are prepared to do it - it's much easier to say 'I never do it for other people';**
- **being prepared for people to be persistent (it isn't easy);** and
- **having reasons in your head about why you are not going to inject a particular person such as 'your head is in too much of a mess/you could OD or catch hep C.'**

Hepatitis B and C

Hepatitis is a medical term that means 'inflamed liver.' The hepatitis viruses live in blood and other cells. All the hepatitis viruses can cause damage and swelling of the liver.

Many members of the hepatitis family have been identified and named with letters. The two main types transmitted by injecting drugs are **hepatitis B** and **hepatitis C**. Both can be carried (and passed on) without the person being aware that they have the virus.

There is a vaccination that can stop you catching hepatitis B. It is a free course of three or more injections over three or six months and your GP, drug service or GUM (genito-urinary medicine) service should be able to vaccinate you.

If you are an injecting drug user you should get vaccinated against hepatitis B – it is worth it because hepatitis B is a highly infectious, serious disease.

In the UK more than four in 10 people who inject have hepatitis C.

The symptoms of liver disease caused by hepatitis include:

- **depression;**
- **exhaustion;** and
- **loss of appetite.**

But it can progress to a serious, even deadly, disease.

There is no vaccination that can protect you against hepatitis C or HIV, so even if you are immune to hepatitis B you still have to protect yourself from hepatitis C and HIV.

There is more than one kind of hepatitis C, so even if you have the virus you should avoid sharing in case you catch another strain.



The hepatitis B vaccination is safe and effective, you need three jabs to get immunity.



HIV

HIV (human immunodeficiency virus) is a virus that destroys the white blood cells which fight infection. Eventually this can leave the person unable to cope with even the slightest infection. When HIV has reduced a person's ability to fight infection beyond a certain point they are diagnosed as having AIDS (acquired immune deficiency syndrome).

Usually there is a long period between getting infected and becoming ill. During that time no one can tell that there is anything wrong.

HIV could still become an epidemic – avoiding sharing has, so far, kept the number of HIV-positive people fairly low.

If you think you might have been exposed to the virus, the only way to know if you are infected is to have an HIV test – information about HIV testing is on the next page.

For advice and support you can talk to:

- **your GP;**
- **drug worker;**
- **local HIV / AIDS service;**
- **The National AIDS Helpline, tel: 0800 567 123;**
- **Body Positive, tel: 020 7373 9124;**
- **Mainliners, tel: 020 7737 3141;**

who should all have access to the latest information.

Testing

In the months after exposure to a virus, the body produces antibodies to both hepatitis and HIV. It is possible to have tests to see if antibodies are present. It is also possible to test to see if the virus is present.

If you think you have been at risk of catching HIV or hepatitis you can find out about testing from:

- the GUM clinic;
- HIV testing service;
- your drug service; or
- your GP.

If you have HIV or hepatitis, being tested means you can get treatment. Early treatment can make a huge difference.



Other infections

Abscesses

Bacteria can be picked up on the needle and taken below the skin. They then multiply in the warm, moist, airless environment.

The body reacts by flooding the area with blood so that the white cells can fight the infection. This is why the area becomes hot, red and swollen. The body can then form an abscess to seal off the infected area with a layer of scar tissue around the pus.

If you try to treat this yourself by squeezing or cutting, you can break down the layer of scar tissue and allow the infection to spread. It is best to go to your GP. Your GP may treat the infection with antibiotics or, if the abscess is big and/or deep, they may surgically open it and treat the wound so that it can heal properly.

If you are using painkilling drugs (such as heroin), remember that you may not be able to feel the pain from an abscess. If it looks bad, get help.

Abscesses can leave scar tissue as a mark on the surface of the skin, or as a hard lump under the skin.

Cellulitis

Cellulitis is a serious infection of the skin. The infected area becomes hot, red, very swollen and painful. It can spread to cover a whole arm or leg. The swelling is usually severe and causes the skin to stretch tightly over the infected area.

If an infection like this takes hold, you must go to a doctor urgently.

Septicaemia

Septicaemia (better known as blood poisoning) is the name given to a bacterial infection of the blood. The symptoms are a very high temperature and feeling very ill. **If untreated, septicaemia can kill, so go to your GP or hospital.** It doesn't have to come from a 'dirty hit' or an infected injection site – people can just become ill in the hours or days following an injection.



Cleaning works!

If you can, always use a new sterile syringe.

If you have to re-use a syringe, clean it like this...

1. Get two clean cups.

Fill them with clean water. Do not use boiling water – it can make the blood clot.

Pour out a capful of thin bleach.



2. Draw up water from the first cup.

Fill the syringe completely to rinse and clean it.

Empty the syringe into the sink.



3. Draw up the thin bleach.

Make sure the outside of the needle gets dipped in bleach to kill any virus that is on the outside.

Empty the syringe into the sink.



4. Draw up water from the second cup.

Empty the syringe into the sink.

Carefully put the cap back on the syringe.

Pour the contaminated water and bleach down the sink.



**1 x water, 1 x bleach, 1 x water
kills hepatitis C, hepatitis B and HIV.**

Blood circulation

If you are going to inject drugs it is important to understand how blood flows around your body.

There are three types of blood vessel:

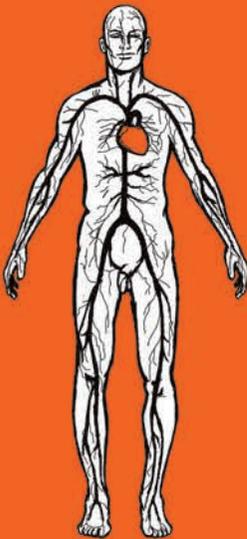
- **arteries** which carry oxygenated blood, at high pressure, from the heart and lungs to the tissues of the body;
- **veins** which carry blood back to the heart and lungs at low pressure;

and, joining them together, millions of tiny blood vessels called;

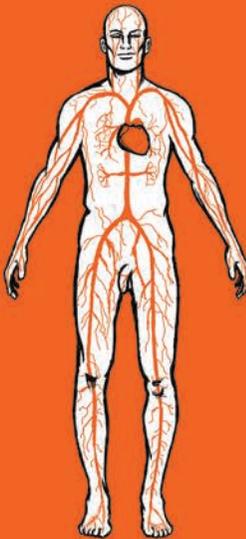
- **capillaries** which transfer oxygen and waste products between cells and blood in the body tissues and lungs.

You must only inject into veins.

The next few pages look in detail at veins and arteries...



Arteries:
carry blood from
the heart



Veins:
carry blood back
to the heart



Capillaries:
millions of tiny capillaries join
arteries and veins together

Arteries

You must only inject into veins. It is dangerous to inject into arteries because the blood is under such high pressure that it can:

- **split the artery wall; and**
- **bleed so fast that it can't form a clot to stop the bleeding.**

It can also cause problems because drugs injected into an artery have to pass through the capillaries before they can get into a vein and start to get back towards your brain. **This is dangerous because:**

- **capillaries become so small that nothing bigger than a single blood cell can get through;**
- **any particles in the injection will block the capillaries; and**
- **irritants in the drug can cause swelling and blockage of capillaries and the small vessels that supply them.**

If you block an artery all the tissue it supplies will die – there is no alternative route the blood can take. Dead tissue will quickly turn black and become gangrenous. Gangrene spreads into healthy tissue unless it is removed by surgery.

Injecting into arteries has resulted in many people having to have fingers, toes and even legs amputated in hospital.

Larger arteries have a pulse – never inject into a blood vessel that has a pulse.





But if you hit a big artery the blood will probably:

- **force back the plunger;** and/or
- **be frothy when you draw back.**

The artery may:

- **bleed heavily when you take out the needle and/or cause a rapidly growing bruise under the skin;** and
- **hurt if you try to inject.**

However, if you are pushing a needle deep into your arm or leg and hit a small artery, it may be too small to push the plunger back; but injecting into it could still cut off the blood supply to the area it supplies – this is one of the risks of digging around for a deep vein.

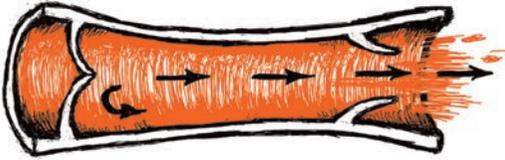
If you hit an artery:

- **apply firm pressure for at least half an hour;**
- **lie down;**
- **if possible, raise the affected area;**
- **dial 999 for an ambulance;** and
- **even if you stop the bleeding, contact a doctor.**

Veins

Veins carry blood back to the heart and lungs at reduced pressure and they need some help. They get this from the movement of muscles squeezing them and forcing the blood along.

To stop the blood getting squeezed both ways there are small valves that flap shut, preventing the blood flowing backwards.



You should inject with the flow of blood otherwise you may cause extra vein damage, swelling and clotting.





Release
tourniquet
before
injecting

Vein care: Finding a vein

Veins carry blood at a lower pressure and never have a pulse – anything with a pulse is an artery.

Veins start off as the tiniest capillaries carrying blood back to the heart, which merge, forming bigger and bigger veins as they progress. The outer (peripheral) veins merge with deeper, bigger veins. On the arm, one of the main junctions is at the inside of the elbow – which is the least dangerous place to inject and is where most people start injecting.

You can make a big difference to the blood flow – and make your veins much bigger – by:

- relaxing;
- warming yourself up;
- flexing your muscles;
- gripping your upper arm; and
- warming up the limb by putting it in warm water, but don't inject heroin or other sedatives in the bath – if you become unconscious you could drown!

Tourniquets

If this doesn't work you can slow the blood flow out of your arm and fill the vein by using a tourniquet – which must be one that can be released quickly and easily without causing movement that can disturb the needle. **Tourniquets that are too tight don't work because they stop the blood getting into the arm as well.**

If you do use a tourniquet it must be released before you start injecting, otherwise the blood carrying the drugs won't be able to get past, and the vein may tear at the injection site. If this happens, some of what you inject will escape from the vein, causing swelling at the injection site – a 'miss.'

How veins collapse

If blood is unable to flow smoothly, it clots. The lining of veins is perfectly smooth so that the blood can flow without clotting. The reason blood clots when you cut yourself is because as it leaves the blood vessels it stops flowing smoothly.

Introducing a needle (that tears and scratches the vein lining) and then drugs (that can irritate and cause swelling of the vein lining) creates turbulence in the blood flow.

This can cause tiny clots to form on the lining of the vein. These clots roughen the lining, causing more turbulence – and more small clots. Gradually the vein can fill up with the clots and block.

The clots then turn into scar tissue which shrinks, pulling the sides of the vein together, leaving it 'collapsed.'

Veins that are damaged or swollen may partially recover, **but collapsed veins never recover.** The blood finds another way back to the heart and lungs through smaller or deeper veins further back down the system.

1. Injecting can scratch the inside of the vein and leave a hole which, during healing, roughens the lining of the vein.



2. Clots form in the turbulent blood around the site.



3. As the vein becomes narrower the turbulence increases and the clots form more quickly.



4. Finally, the edges of the vein heal together and the vein collapses as the scar tissue draws the sides together.





'New' veins

When veins have been blocked, the blood still needs to get back to the heart and has to find another way. But as the bigger veins collapse, the ones that get used to re-route the blood become smaller and smaller. When a very small vein has to carry a lot of blood it sometimes swells up like a balloon and becomes much bigger.

When a 'new' vein appears it is usually one of these small, weaker veins that has 'blown up.' **If used for injecting, 'new' veins usually burst** as soon as they are punctured, or block within a few days when the bruise clots. 'New veins' are a sign that the vein damage is getting very bad, possibly irreversible, and you should think seriously about stopping injecting. There are alternatives - see page 9.

Long-term consequences of collapsed veins

By the time 'new' veins start appearing, vein damage is quite bad – the lack of veins means that blood is being pumped into the arm or leg faster than the veins can carry it away. **This makes the hands, feet or whole limb swollen, puffy, cold and blue. This is irreversible.** It is a sign that injecting has caused serious, long-term damage.

Collapsing veins mean that the return blood flow is reduced. Blood flow is essential to healing – without enough blood flow, injection sites and cuts become more prone to infections and boils.

If the collapsed veins are in the leg or groin, small scratches and knocks to the feet and legs can't heal and can form ulcers. These are incredibly painful sores that take months or years to heal.

Sometimes blood flow is so poor that areas of skin start to die, gangrene sets in and the infected bits have to be removed by surgery.

Serious, chronic, painful problems such as:

- **infections that don't get better;**
- **areas of skin dying;**
- **ulcers;**
- **gangrene;** or
- **rings you can't get off swollen fingers**

can get really serious.

If you experience any of these things, seek medical help early on – either from your GP or your local accident and emergency department.



Deep vein thrombosis 'DVT'

Injecting into the groin (or the veins of the leg) can cause a blood clot to form against the lining of the femoral vein. These clots can break off and carry on up through the veins, getting stuck in the lungs, causing pain, breathlessness and, possibly, heart attack and death.

Signs and symptoms of a DVT (deep vein thrombosis) forming include the leg becoming:

- **swollen;**
- **hot and red;** and
- **sore (especially in the calf).**



Drugs that damage veins

There are a number of substances that cause more damage to veins if injected.

The main ones are:

- **crack and cocaine;**
- **temazepam;** and
- **pills and capsules.**

The reasons why there are particular problems with these substances are outlined below.

Temazepam

When injected, temazepam always irritates and causes swelling to the lining of the vein. This can lead to rapid vein collapse – see page 30.

Temazepam is also risky because it gets people so ‘out of it’ that they are more likely to take risks in terms of:

- **damaging their veins through poor injecting technique;**
- **sharing injecting equipment** (sometimes because they can’t remember whose works are whose);
- **getting involved in crime or violence;**
- **sexual behaviour;** and
- **accidentally overdosing because they cannot remember (or work out) what they’ve taken.**

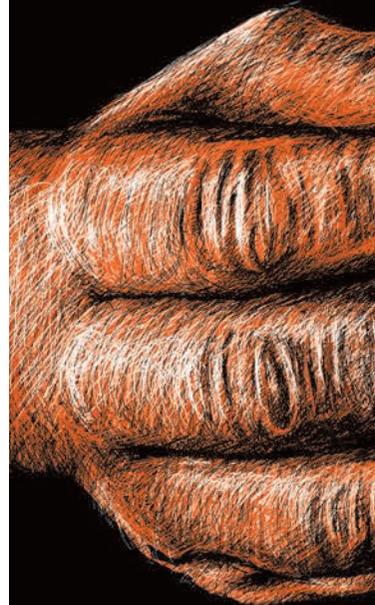
Crack and cocaine

Cocaine is a very powerful local painkiller. This can cause big problems because once it has been injected, bad injecting technique causes no pain.

Also, it is a very short-acting drug which people often use in non-stop binges. This can result in lots of injections, and a huge amount of damage, being done in a short period of time.

Like amphetamine, cocaine also makes you less likely to worry about:

- **HIV and hepatitis;**
- **injecting technique and vein damage;** and
- **sexual risks of HIV and hepatitis.**



Crack has to be acidified to make it injectable and the acids cause vein damage. Don't use too much and seriously think about smoking it!

Pills and capsules

Injecting anything solid into your veins is likely to speed up the process of them collapsing. It is possible to completely block veins in a very short time if you inject tablets.

Pills and capsules contain lots of added substances to make the pill hard, solid and the right size and colour. In this mixture will be a relatively small amount of the drug. This is why there is always powder left in the spoon.

Citric and Vit C

Although pharmaceutical and white heroin dissolve easily in water, to dissolve brown heroin and crack cocaine for injection, an acid must be added to the mixture.

Injecting acids can cause vein damage. To keep vein damage to a minimum it is important to use as little as possible.

Some areas supply sterile citric acid or vitamin C in sachets because other **acids such as lemon juice and vinegar can cause serious health problems, including eye infections that can cause blindness.**

If you can't get sachets use citric acid or ascorbic acid (vitamin C) **BP**. Citric and Vit C powders that don't have the letters 'BP' after the name may contain other substances, some of which may be harmful to inject.

If you get pain or redness at an injecting site it could be caused by the acid you are injecting – stop injecting there. Ask your needle exchange, drug service or GP for advice.

Always add acids a bit at a time and stop as soon as the drug is dissolved.



Sites: The arms

No two people have the same network of veins – size and position vary from person to person. Men tend to have slightly bigger veins than women.

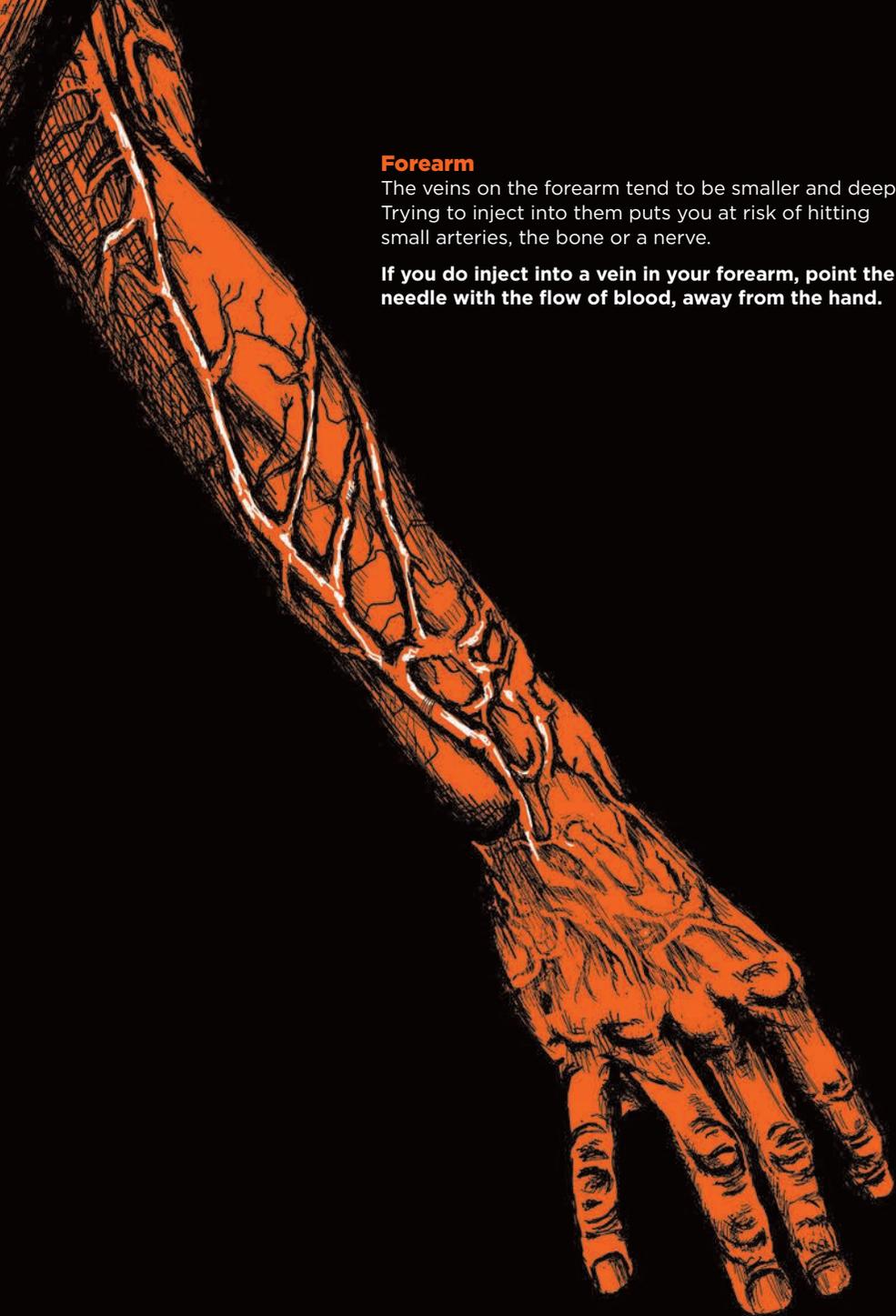
Lower arm

If these veins block, the back pressure of blood will start to make the hands swell.

Inside elbow

If you are going to inject, and have reduced the other risks as much as possible, it is the least dangerous place to inject. When these veins are getting blocked it's time to consider another method of taking your drug, such as sniffing, swallowing or smoking.





Forearm

The veins on the forearm tend to be smaller and deeper. Trying to inject into them puts you at risk of hitting small arteries, the bone or a nerve.

If you do inject into a vein in your forearm, point the needle with the flow of blood, away from the hand.

Small veins

Injecting into small veins is risky – the chances of the vein splitting, or not being able to take the volume of liquid you are injecting, are high.

Hands

The veins in the hands are very small, sensitive and are easily damaged or split.

Blocking these veins causes puffy, blue and cold hands with poor circulation. Swollen fingers can have their circulation cut off by rings. **Make sure you take all your rings off if you are injecting into your hands.**

If you do inject into one of these small veins – where the blood can only flow slowly – you can reduce the risk of a split vein, or injecting a lot of fluid into the tissue around the vein having missed it, by injecting as slowly as possible.

Feet/ankles

The veins here are even more fragile than those of the hands. They can be more painful too.

Because the veins are fragile and because the blood flows slowly, injections into the feet often miss, with the fluid escaping around the needle during the injection into the tissue around the vein. **You can reduce this risk by injecting slowly.**

Slow blood flow also increases the risk of infection. Because feet are warm and sweaty, the skin has high levels of bacteria. So it is important to wash them carefully, with soap and hot water, before attempting to inject.

If you block the veins across the top of your feet there is no other way for the blood to flow back. This can cause infections, ulcers and gangrene.

If you start injecting into your feet/ankles, it won't be long before you are spending days in pain and unable to put shoes on. If you are thinking about injecting into your feet it is time to start thinking about giving up injecting.



High-risk sites

The groin and the legs are high-risk sites. It makes sense not to inject into these sites when you are on your own, so that there will be someone around to get help if things go wrong.

If you use these sites and are around people who inject who haven't yet tried injecting into them, remember that seeing you do it may encourage them to try.

If you are injecting into your arms now, it would be well worth promising yourself that if you ever find yourself contemplating using any of them, you'll stop injecting.

Groin

Injecting into the groin is very dangerous. The femoral vein is deep inside the body and brings blood back from the legs. Injecting into something so deep is dangerous enough, but there is the added risk of hitting the femoral artery (which takes blood down into the legs) and the femoral nerve (which takes sensation to the legs).

Once people have found the femoral vein they tend to use the same site over and over again. This has the added risk of:

- **infection travelling down the hole**
(which doesn't heal);
- **the artery and the vein becoming connected;** and
- **a blood clot forming**
(see deep vein thrombosis, page 33).

If you reach the point of thinking about using your groin, you really should think about stopping injecting. If you are thinking about using your groin (or are already doing it), talk to your drug/needle exchange worker about what you plan to do and get support and advice. We have also written a booklet with more information for groin injectors.



The femoral vein is deep inside the body. There is a risk of hitting the femoral artery and the femoral nerve.

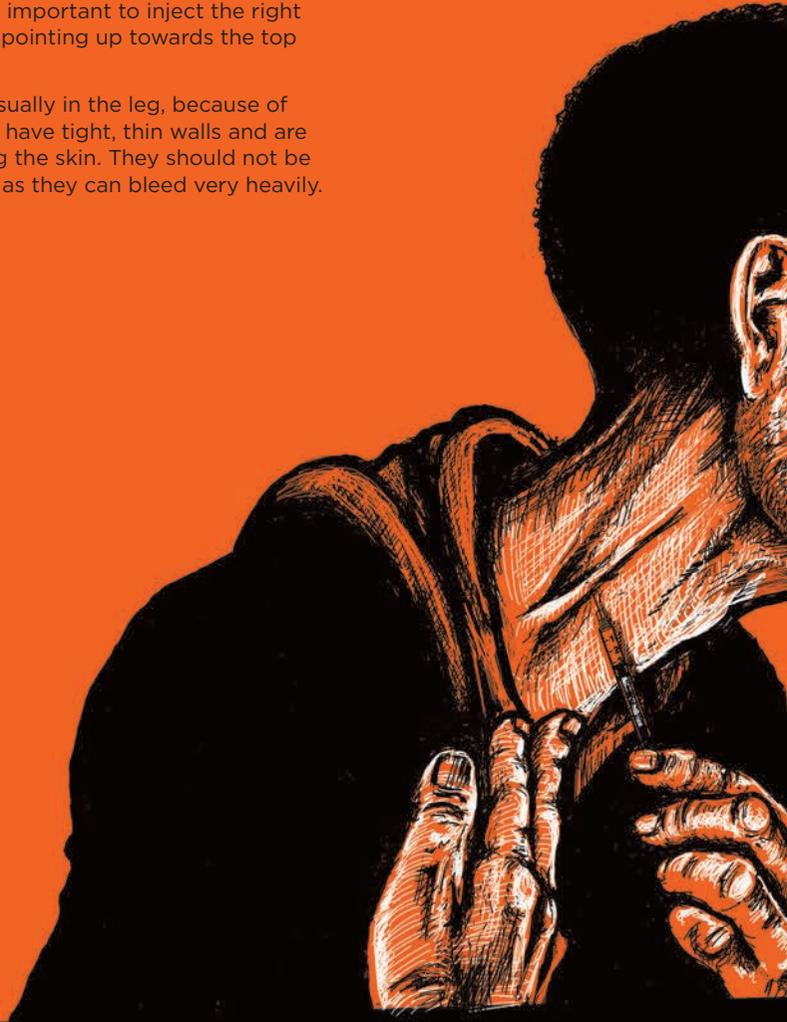
Legs

Because they are furthest from the heart and because of gravity, blood flow through the legs is slow. If drugs are injected too quickly the veins are unable to cope, and fluid escapes from the vein, around the needle, causing a miss.

Because the blood flow is slow, it is harder for the body to heal injection-site damage and fight off infection. So abscesses and other infections are a greater risk for those injecting into their legs.

As the flow of blood in the leg veins is upwards, towards the heart, it is important to inject the right way – with the needle pointing up towards the top of the leg.

Varicose veins form, usually in the leg, because of damaged valves. They have tight, thin walls and are often raised, stretching the skin. They should not be used for injecting into as they can bleed very heavily.



Very high-risk sites

Neck

Injecting into the neck is dangerous because your neck contains arteries going to your head, nerves, muscles, and air and food pipes. **This means that an infection or swelling can become very serious, very quickly. Not being in control if someone else is doing it also increases the risk.**

Breast

Although there may be small veins visible in women's breasts, it is dangerous to try and inject into them because they are very small and liable to break. They are next to milk ducts which can easily be filled with fluid, and the risk of a very painful infection – called mastitis – is high.

Penis

Although there are veins visible around the penis, injecting into them is an extremely dangerous act of desperation. The mechanism for getting an erection is for the veins of the penis to get smaller, restricting the flow of blood out; this causes the penis to fill with blood. Blocking the veins by collapsing them through injecting damage can cause a permanent, painful erection.

These sites are described to outline the risks – not because they are viable injection sites. **If you are thinking about using these sites, talk to your needle exchange worker about getting support to stop injecting!**



Myths

There are some myths about injecting that have been repeated so often that practically everyone believes them.

We've exploded the ones we've heard of below – if you know of any more, let us know.



'Air bubbles can cause a stroke'

Having been injected into a vein, the drug has to pass through the heart and then through the capillaries in the lungs before it can come back to the heart and be pumped up to your brain.

This means that air bubbles can't get to your brain because they get stuck in the capillaries in your lungs. For air to do you any harm it has to be sufficient to cause frothing in the heart on its way through – much, much more than a 1ml syringe-full.

Air bubbles can contain bacteria, so don't ignore them and inject big bubbles; on the other hand, don't expose the needle to the air for ages (picking up bacteria) trying to tap out tiny air bubbles that seem stuck to the side of the barrel.



'Used works that look clean are sterile'

This is not true – **infectious quantities of HIV and hepatitis can live in droplets of blood that are much smaller than the eye can see.**

If you have to re-use a syringe, clean it with bleach yourself first (see inside back cover).



'Dirty works can be re-used if you rinse them with boiling water'

Flushing first with boiling water can cause clotting of blood and the formation of a protective 'skin' over any droplets of blood in the needle or syringe. Viruses and bacteria can then live, unharmed, in this protected, warm, moist droplet.

If you are going to re-use works, they should be flushed with cold water first and then cleaned properly. Instructions on how to do this are on the inside back cover.





'You can tell if someone has got HIV or hepatitis'

Of course you may be able to tell if someone is ill with HIV or hepatitis – they are very serious diseases. However, **both types of virus can live in your body for many years without any visible sign.**



'It is okay to re-use filters'

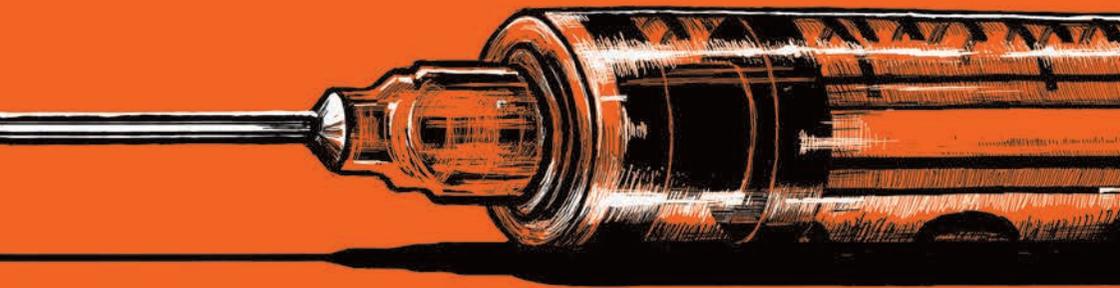
Filters collect infections – especially if they are moist and warm. This makes them the perfect breeding ground for bacteria.



'We sleep together so we might as well share works'

Sharing with your sexual partner exposes you to more risks.

Hepatitis C is seldom transmitted sexually, but it is highly infectious through injecting. To protect yourself, and your partner, use a condom and never share needles and syringes.



Overdose myths



'Trying to walk someone around will stop them overdosing'

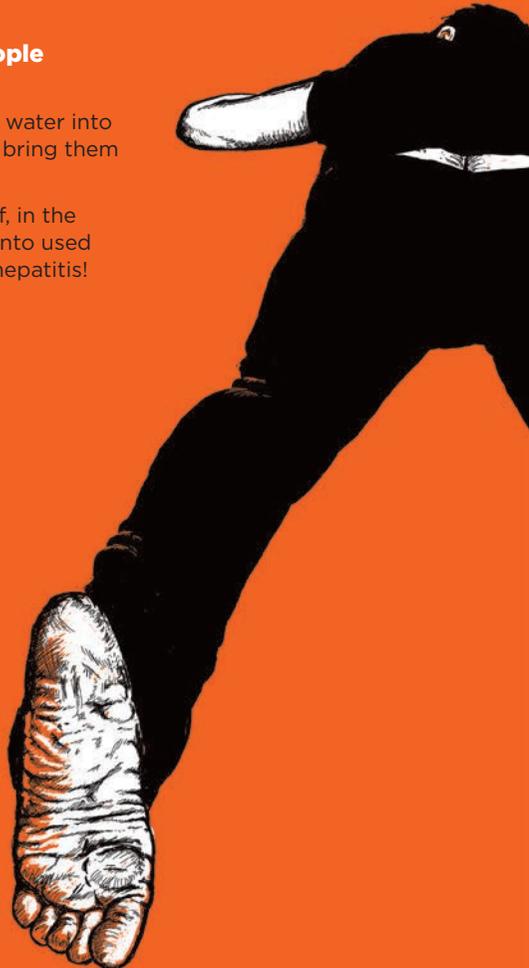
Keeping someone awake may feel like the right thing to do, but the forces of a drugs overdose are too powerful to be counteracted by any act of will. **So all the things that are done to keep people awake - cold water, slapping, etc. - don't do any good at all.** If people do wake up while being hit, etc., it is because their body has metabolised the drugs - not because of the pain.



'Injecting salt water helps people who have overdosed'

There is an idea that injecting salt water into someone who has overdosed will bring them round. **It won't.**

In fact, it can be very dangerous if, in the panic, the salt water is drawn up into used works and they are given HIV or hepatitis!



Treating overdose

If someone has overdosed and is unconscious, you need to lie them in the recovery position (see illustrations below) so that their airway is clear and they cannot choke on vomit or saliva.

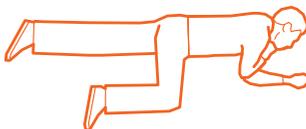
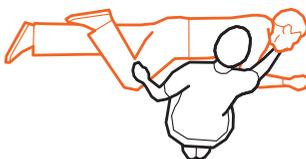
You need to dial 999 for an ambulance if someone is unconscious and any of the following are true; that they:

- **are not responding to pain;**
- **are breathing slowly or erratically;**
- **start turning blue** (this usually starts with the lips);
- **start being sick** (because they can choke on the vomit);
- **have taken methadone or alcohol or tranquillisers before using heroin;** and
- **have not regained full consciousness within three minutes.**

When you dial 999 you need to tell them:

- **where the casualty is;** and
- **that they are unconscious.**

Stay with the casualty until the ambulance arrives and tell the ambulance crew as much as you can about what the person has taken, and when they took it.



In short

This handbook has looked in detail at the risks of injecting and how you can protect yourself. But, in short, the main messages are:

1. You can protect yourself from infection by always using your own:

- **new, sterile needles and syringes;**
- **mixing water, cups or containers;**
- **spoons;**
- **filters;** and
- **swabs/sterets/alcohol wipes;**

and never sharing, lending or borrowing them.

2. 'Sharing' doesn't just mean using a syringe that someone else has used. It also means using:

- **a filter;**
- **mixing water;**
- **water cup/container;** and
- **spoon;**

that someone else has used, or passing them on to someone else.

3. Always use:

- **needles, syringes and filters once only;**
- **the smallest needle you can;** and
- **a new needle if you can't find a vein straight away.**

4. Always be aware of the risk of:

- **catching infection from others;**
- **overdose;** and
- **passing on infection to others.**

5. And go to see a doctor if you get any swelling at or near an injection site that lasts for more than a few days or:

- **is painful or tender;**
- **is hot and/or red;**

or if you get:

- **any serious bleeding;**
- **an area of skin becoming sore, weeping or turning black;** and
- **an area of skin becoming pale or discoloured.**



Cleaning works!

If you can, always use a new sterile syringe.
If you have to re-use a syringe, clean it like this...

1. Get two clean cups.

Fill them with clean water. Do not use boiling water – it can make the blood clot.

Pour out a capful of thin bleach.



2. Draw up water from the first cup.

Fill the syringe completely to rinse and clean it.

Empty the syringe into the sink.



3. Draw up the thin bleach.

Make sure the outside of the needle gets dipped in bleach to kill any virus that is on the outside.

Empty the syringe into the sink.



4. Draw up water from the second cup.

Empty the syringe into the sink.

Carefully put the cap back on the syringe.

Pour the contaminated water and bleach down the sink.



**1 x water, 1 x bleach, 1 x water
kills hepatitis C, hepatitis B and HIV.**

The **Safer Injecting** Handbook is the complete guide to the risks of injecting and how to avoid them.

It is essential reading for all injecting drug users and needle exchange workers.

Winner of a Plain English Campaign award in the 'Best public documents of the year' category.

Handbooks available in this series:

Methodone

Code: P301

Detox

Code: P302

Safer Injecting

Code: P303

Rehab

Code: P304

For more information on safer injecting and to buy injecting equipment online go to: exchangesupplies.org