

# **Safer injecting**

Reducing your risk

**Includes free DVD for injectors!**



**When a needle feels blunt,  
this is what it looks like.**

**Imagine what it could do to your veins.**



**This needle has been  
through the skin a few times  
in the search for a vein.**

## **Introduction**

**This booklet aims to reduce some of the problems caused by injecting.**

**If you are a drug user who doesn't inject, there is no need to read any further - the advice is simple: don't start!**

If you inject, improving your injecting technique can really reduce vein damage and prevent some of the serious problems that affect people with lots of collapsed veins. It can also prevent or delay the move to riskier sites.

## **Why?**

**You have only got one set of veins. If you give them a break when they have been damaged by injecting, they can sometimes recover. But once veins collapse they are gone for good.**

If only a few veins have collapsed, the blood can use other nearby veins to get back to the heart, but if more and more veins collapse, the arm or (more seriously) leg can become swollen, cold and painful.

**This condition can be lifelong and although it may get better when you stop injecting, things seldom return to normal.**

**The information in this booklet aims to reduce the harms of injecting by helping you to preserve the veins in your arms and giving you time to think about stopping or changing the way you take drugs.**

## **Clots and vein collapse**

**Blood is amazing stuff: it flows around our bodies without clotting, but as soon as we get a cut or graze it stops flowing and forms clots, which turn into scabs and then into scar tissue.**

It does this because it contains billions of tiny cells called platelets, which clot as soon as there is any turbulence in the flow of blood. The lining of veins is perfectly smooth, so that the blood won't clot as it flows along. But the smooth lining of the vein can be damaged by:

- **the needle;**
- **the drug** (especially cocaine and crack);
- **too much acid;**
- **injecting too often or too fast;**
- **infection; and**
- **'flushing' the syringe after your hit.**

**When the lining of the vein is damaged clots can form, eventually leading to vein collapse. This process is illustrated over the page...**

## How veins collapse



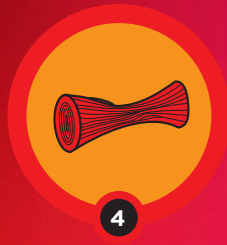
**Damage** to the lining of the vein causes turbulence in the flow of blood.



The **turbulence** causes **clots** to form on the inside of the vein.



These **clots** make the vein **narrower**, causing more clots to form, making the vein narrower still.



Eventually the vein **blocks**, and the clots turn into **scar tissue** which shrinks and pulls the sides of the vein together, causing it to **collapse**.

## Acids

**Brown heroin and crack cocaine are made in a smokeable ‘base’ form that do not dissolve well in water. In order to make the drug dissolve for injection they have to be converted to water-soluble ‘salt’ forms. This is done by adding an acid.**

Citric acid and vitamin C (ascorbic acid) are the acids most commonly used to make brown heroin and crack cocaine dissolve. Adding an acid to a base provokes a chemical reaction that converts the base into a water-soluble salt.

Acids can cause chemical burns, tissue damage and increase the risk of infections at the injecting site – especially when too much is used. To reduce the amount of vein damage to a minimum it is important to use as little as possible.

**Add the acid a bit at a time until the drug has dissolved.**



**Many people use far too much acid, causing 'citric burns' and vein damage.** Adding too much acid doesn't make the hit any better: once all the heroin (or crack) has bound with the acid and dissolved into the water, extra acid will only make the solution more caustic for the veins.

To convert all the diamorphine in a typical £10 bag (0.1 gram - 0.15 gram) of heroin you need just:

- 20 mg of citric acid; or
- 60 mg of vitamin C.

**That's just one-fifth of a sachet!**

## **Citric acid or vitamin C?**

**There is no evidence that either vitamin C or citric acid causes more or less vein damage than the other.**

Vitamin C is 'less strong' than citric acid, so it has a greater 'margin for error' – a little extra vitamin C will cause less of a change in acidity than the same amount of citric acid. Safer injecting advice has often encouraged the use of vitamin C for this reason. It is probably best to stick with what you know, and to rotate sites, and **use less acid if you start to experience pain or redness during or after injecting.**

## **Rotating sites**

**Injecting into both arms and varying the places that you inject will give your veins a chance to recover between injections.**

It is always easier to inject with the hand you write with. Learning to inject with the other hand could help save your veins. **If you are a regular injector it is better to learn this skill sooner rather than later** – because you don't want to start learning to inject with your other hand when you need a hit, but can't find a vein.

## **Needle and syringe size**

**Use the smallest size needle that you can – for most people, and most sites, this is the 27–30G needle that comes on 1 ml syringes. Using fine needles requires care, as they can break when bent.**

## Avoiding misses

**Injecting some of the drug into tissues around the vein can be very painful, cause serious infections and drastically shorten the life of veins.**



Hurrying to get the needle in, putting it in at the wrong angle, not checking its position carefully, and pushing the plunger down too quickly can all cause leakage and bleeding around the injection site. If you inject too quickly, the vein may not be able to take all the extra fluid, and some can escape into the tissues around the vein.

**When people can't understand how they 'missed' - because they know they were in the vein - it is probably because either the needle has come out of the vein during the injection, or they have injected too fast and some has leaked out. The smaller the vein, the slower the injection has to be.**

## **Don't 'flush'!**

**When you flush there will be some movement of the needle – it is impossible to avoid it.**

Syringes are medical devices designed to deliver the entire dose of a drug. Flushing does not increase the amount of drug you inject or give a better hit, but it will shorten the life of your veins.

## **Never let go!**

Once the needle is in your arm don't let go – **the movement causes vein damage.** Use a tourniquet that you can release without using your hands.

## **Infections**

**When bacteria are injected directly into the bloodstream, the body is usually able to kill them (this is not the case with viruses). But when the vein is missed, the warm, moist, airless dark space under the skin is an ideal place for them to grow.**

Infections and swelling around an injection site can slow the flow of blood, and lead to clotting and scarring which can collapse the vein.

**To prevent infections, abscesses and vein damage it is important to always:**

- **use new sterile equipment;**
- **wash your hands and the injection site with soap and water;**

**and to:**

- **clean your mixing equipment before (and ideally after) every injection.**

If you do get an infection or swelling in your arm or hand, take off your rings as they can cut off the blood supply!

## **'New veins'**

**People sometimes find a new vein, usually near the surface, where there wasn't a visible vein before. Unfortunately these never last because they're not really new veins.**

What happens is that as veins collapse and circulation gets restricted, it gets 're-routed' through smaller and smaller veins. If the pressure in a small vein gets too great, it can blow up like a balloon.

**The walls of these veins are very thin and fragile. Sticking a needle in them usually results in a painful bruise. If you are at the stage of finding these 'new veins' you should think seriously about stopping injecting because carrying on is likely to lead to serious, and lifelong, circulation damage.**

## Tourniquets

Tourniquets are not always used by those who can find a vein easily. If you are having difficulty finding a vein, washing your arm in hot water, having a hot bath (get out before you inject!) or doing a quick bit of exercise (like press-ups, or swinging the arm) are the best ways of increasing the flow of blood and therefore the size of the vein.

A tourniquet can also help – if you use a tourniquet, do not put it on too tightly. If you can't feel a pulse in your arm or it goes numb, the tourniquet is too tight and it will be harder to find a vein.

**It is essential that you release the tourniquet as soon as you get a vein because if you try to inject while the tourniquet is still tight, the drug will often leak out around the needle and cause a miss.**



## **Speedballing**

**Injecting crack or cocaine with heroin is really damaging for veins, and often leads to rapid vein collapse.**

## **Cocaine**

**Cocaine is a powerful local anaesthetic. After one or two hits the whole area around the site will be numb. This means that it gets harder and harder to hit the vein - and to know when you're missing.**

It is far better to smoke crack or sniff powder cocaine.

## **What's on the disc?**

**Eight short films all injectors should see!**



## Preventing abscesses and sores

### Hand washing: spot the difference

A new film showing the difference in bacteria levels on hands that have been washed and those that haven't.



### How to wash your hands

A short instructional film showing how to wash your hands properly.

## Cleaning syringes

### How to clean a syringe

A simple film that shows how to clean syringes effectively.



### Does cleaning syringes work?

Short film in which the researchers from Yale who investigated the survival of HIV in syringes explain how effective bleaching is.

## Hepatitis C

### How small is the hep C virus?

A short animated film that shows just how small the hep C virus is (totally invisible unless you've got an electron microscope).



### HIV and hep C survival in syringes

Short film that answers the question 'how long does hep C remain infectious in a used syringe?'

## Overdose

### Going over

Going over presents four overdose scenarios dramatised from real events. The stories give clear and important messages about responding to overdose.



### Recovery

How to put people who have overdosed in the recovery position and call an ambulance!



The Harm Reduction Works resources are produced by Exchange Supplies for the National Treatment Agency and Department of Health as part of the Reducing Drug Related Harm Action Plan.

Written by Andrew Preston, Jon Derricott and Paul Hardacre.  
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**HarmReductionWorks.org.uk**

