

### Recognising problems & how to deal with them

This chapter covers some of the main hazards of injecting: problems with veins and the problems that come about through being exposed to bacteria (germs) and viruses. There's a lot more than can be said about each problem than we talk about here, so please don't take these as the last words on the subject.

Anyone who has been injecting for any length of time will probably have some experience of one, or more, of these problems. The thing is, though, by using good injecting technique and following the safer using guidelines covered in Chapter 2, we can avoid them.

A word of warning though: many of the things we describe are potentially very dangerous and the seriousness of the situation increases the longer we delay dealing with them. Many people try to ease pain and discomfort by taking more of a drug or another drug. This might seem a sensible solution at the time, but . . . there's always an overdose (OD) to consider and the real cause of the problem will remain and perhaps get worse. Also some drugs such as methadone or any opiate really, can disguise or cover pain.

Dealing with these problems often requires expert medical attention. Finding expert and sympathetic medical help to deal with these problems can be difficult. The first thing is to recognise when there is a problem.

### Problems with veins

Chapter 2 covered how blood works inside the body, the difference between veins and arteries and some of the things to avoid when we inject.

It doesn't really matter if you've been injecting a long or short time, it's in your best interest to take care of your veins. Damage to veins can lead to many complications. Unfortunately, most injectors don't look for expert medical care until things reach a crisis point, which can often lead to permanent damage requiring much more intensive and perhaps, expensive treatment.

### How veins block and collapse

When we put a needle into a vein, especially a needle with a blunt or damaged point, we can make tears and scratches to the inside of the vein. The mix we put in there can also irritate and cause the vein linings to swell. So, too, can bacteria, if the hit is not clean.

Tiny clots form on the lining of the vein, which in turn cause more small clots. If this process keeps on happening, eventually the vein can fill up with clots and get blocked. The clots turn into scar tissue, which shrinks, pulls the sides of the vein together, leaving it 'collapsed'.

It's not hard to tell if a vein has collapsed: you can't draw blood from it and it might feel hard and won't bend when it is pushed. It may even shrink and 'disappear'.

Don't try to use the vein: rest it and seek medical attention if it becomes sore or hot.

Veins and swollen veins can recover and find a way to keep on working, but collapsed veins don't recover. The blood finds another way through smaller or deeper veins.

### "New" veins?

When veins collapse, the blood finds smaller and smaller veins to do the job of taking blood back to the heart and lungs. A small vein asked to carry a lot of blood can swell up and look much bigger than it usually is.

That's what 'new' veins often are. Not really new veins, but bloated smaller, weaker veins. If they're used for injecting, these 'new' veins can burst as soon as they're punctured, or block up with clots after being used only a couple of times.

### Collapsed veins over the long-term

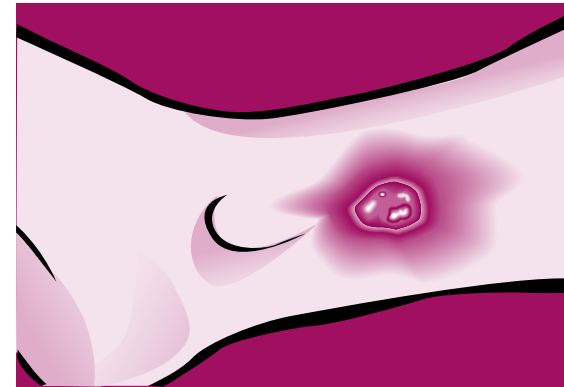
When 'new' veins are appearing, it usually means that vein damage is pretty bad. Blood is pumped into the arm or leg faster than the veins can carry it away. The hand, arm, or leg gets swollen, puffy, cold and blue. Collapsed veins can't be healed. The damage is permanent.

Good blood flow is essential to healing. When there's limited blood flow, injection sites and cuts are more likely to get infected and result in more problems. When the collapsed vein is in the leg or groin, small scratches

and knocks to the feet and legs can't heal properly and can form ulcers, very painful sores that can take months or years to heal.

If any of these things happen to you, it's really important to get medical help. Poor blood flow can also mean that areas of skin start to die, get gangrene and have to be removed by surgery.

### Ulcers



Usually found on legs, ulcers are painful areas of broken skin, often caused by repeated unsafe injecting into areas where the flow of blood has been severely reduced. Because the blood flow in the legs is slow, healing takes place more slowly and can be complicated by infection.

Ulcers can be caused as a direct result of injury through injecting or by a number of other means. The result is the same: they take a long time to heal and can be very painful.

Ulcers take many months to heal and usually require medical attention and frequent visits to a clinic. Some needle & syringe programs might be able to help you find a clinic or a friendly doctor.

If you think you might have an ulcer, it is really important to get it checked out properly and if necessary, get proper medical care in hospital.

To prevent ulcers, follow the guidelines discussed in Chapter 2.

## Thrombosis and Embolism

Thrombosis which includes deep vein thrombosis (DVT) is a blockage that has originated at the site of the blockage. (They do not occur when blood clots etc move to the area). A section of a thrombosis may break off and become an embolism. An embolism is caused by a large particle—a blood clot or a lump of bacteria or ‘foreign’ matter—that blocks the flow of blood. The larger the clot the more serious the condition becomes. Both can cause pain and sudden swelling of the affected limb, which, in the early stages, may become pale, then get red or bluish. If it moves to the lung, it can cause shortness of breath, chest pain, rapid pulse, fainting, sweating, or spitting up blood. Sometimes there are no obvious symptoms.

Air embolisms are also possible, although you would need to inject a large amount (over 10ml) of air in one go to cause a problem. If you have already begun your injection and notice air in the fit, don’t panic. If it is a 1ml syringe, the air should not cause a problem. If you think you might have an embolism or deep vein thrombosis, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent embolisms and thrombosis, follow the guidelines discussed in Chapter 2.

## Abscesses

Many of us have had abscesses at some time or other. They can be very painful. Without experience or medical training, we can’t always tell how serious they are.

Abscesses can occur on the skin, or on your spine and bones.

When they first appear, abscesses on the skin look like raised lumps on or under the skin. They’re different to cellulitis in that they have a defined edge and shape. Abscesses are actually collections of pus that the body makes to try to trap an infection so it won’t spread throughout the body. Inside the pus is blood (white blood cells for fighting the infection), damaged or dead tissue and bacteria. Some of this bacteria may still be alive, which is why squeezing and poking about can spread the infection.

Abscesses come about when you shoot irritating or insoluble material into a vein, or if you miss the vein and it goes in the top layer of skin where it remains without being properly absorbed. Repeated, successful injections into the same site can also cause an abscess because there isn’t enough time for the vein and skin to heal. Some cutting agents can cause abscesses too, as can intramuscular injection and skin-popping.

Skin abscesses can take a while to develop. They might start as a soft bump under the skin. It might get red and hot. A sterile abscess will usually go away, especially if you don’t squeeze it but it may take a while.

An infected abscess forms the same way, but soon becomes very painful and ‘comes to a head’ of pus. Squeezing and bursting it will not help and will probably make things worse. It will spread the infection.

Healing abscesses. Because it’s often hard to tell if an abscess is infected or not, if you think you’ve got an abscess find medical help. In their early stages, antibiotics can help clear them up. But they might also require lancing, cleaning and packing, which can only be done by the medical profession. In many cases, abscesses need regular re-dressing and take a long time to clear up.

If you think you might have an abscess, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent abscesses, follow the guidelines discussed in Chapter 2.

## Phlebitis

Phlebitis comes about when the smooth inner lining of a vein becomes irritated through injecting certain drugs, poor injecting technique, or infection. The vein becomes red or inflamed. It might feel like thick cord beneath the skin.

Phlebitis can lead to deep vein thrombosis and blood clots in the lung.

Healing phlebitis. Phlebitis can be treated by resting and raising the affected limb and taking anti-biotics, using cold-packs and taking anti-inflammatory drugs. If you think you might have phlebitis, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent phlebitis, follow the guidelines discussed in Chapter 2.

### Missed hit

A missed hit shows itself as a swelling around an injection site during or immediately after having a hit. It can be caused by fluid from the hit getting into the tissue around the vein, because the needle has not gone into the vein properly, gone in but slipped out or gone in but, due to excess pressure, caused the vein to split.

Missed hits can lead to abscesses and cellulitis.

#### TIPS for avoiding missed hits:

**Make sure the needle is in the vein, by gently pulling back on the plunger to see if dark blood enters the syringe.**

**Release the tourniquet before injecting.**

**Keep hands steady while injecting.**

**Use the smallest possible syringe (1 ml.) and pick ( 29g or 30g).**

**Inject at the correct angle (45°).**

**Inject the fluid slowly.**

### Cellulitis

Often caused by a missed hit and/or poor blood flow, cellulitis comes about when germs or irritating particles get stuck in body tissue. It looks like a reddening of the skin, coupled with hot, painful swelling caused by the trapped fluid.

Treating cellulitis includes resting and raising the affected limb, using cold packs and taking antibiotics and anti-inflammatory drugs. Not using in that area will help recovery time.

out properly and if necessary, get proper medical care in hospital.

To prevent cellulitis, follow the guidelines discussed in Chapter 2.

### Bruising, tracks & scarring

When you inject, blood can leak from the vein out under your skin causing a bruise.

#### Taking care of bruises

##### TIPS for preventing or minimising bruising:

**Use new, sharp needles and picks. Blunt and barbed picks are much more likely to cause bruising.**

**Applying pressure to the injection site for a couple of minutes immediately after a hit will help minimise bruising.**

**If your veins are in good shape, release the tourniquet as soon as you have jacked: keeping pressure on from the tournie may increase bruising.**

**Don't try to sharpen picks - there is no safe way to do it.**

Among the creams that are useful for bruising and thrombosed veins are Hirudoid™ and Lasonil™ (available from chemists) and herbal ointments made from arnica (available from health food shops and some chemists). You can also use vitamin E oil, aloe vera, comfrey, calendula and ice to reduce bruising.

Don't squeeze straight from the tube onto the injection site and don't let anyone else put their fingers in your ointment jar, they're ways of spreading bacteria and/or viruses. You should wait a couple of hours before applying the cream, until the injection wound has begun to close - this lessens the risk of infection.

**Scarring**

Tracks (scarring) are caused by repeated injecting into the same site and especially when the pick is blunt and/or barbed. Rotating injection sites and always using a new pick helps reduce scarring. You can also use the creams mentioned above to soften and reduce scars.

If your veins are badly scarred, perhaps it is time to consider another way of taking your drugs.

**Dirty hits**

A dirty hit is caused by pollutants/adulterants in a hit. They can come from any number of sources: nicotine from a used cigarette filter, dirt from your hands, powder that hasn't been filtered out of crushed pills, powders used for cutting dope, bleach left behind (if you have cleaned your fit but not rinsed it properly), or bacteria and other micro-organisms in filters, in unsterile water, or on your hands.

The effects of a dirty hit can come on quickly or take hours. The symptoms can be severe - headaches, the shakes, vomiting, sweating, fever and aches and pains.

Aspirin or paracetamol will help stop the fever. If you are vomiting, anti-nausea medication might help. It is best to rest and drink lots of fluid.

Seek medical attention if the symptoms are strong, cannot be relieved, or continue to worsen. As difficult as this may be, it is a good idea to tell the doctor that you have had a hit and that this reaction came on afterwards. This is so that you won't be misdiagnosed with meningitis or septicaemia.

To prevent dirty hits, we recommend following the guidelines discussed in Chapter 2.

**Endocarditis**

Endocarditis is a potentially life-threatening infection of the heart valve. It can develop through repeated injections adulterated with bacteria or germs. The bacteria collects and grows on one of the four valves inside the heart, eventually damaging the valve and stopping the normal flow of blood.

The symptoms of endocarditis can come on quickly, over 1-2 days, with fever, chest pain, fainting spells, shortness of breath and heart palpitations. In severe cases, a person may suddenly collapse, have a rapid pulse and pale, cool, clammy skin.

Sometimes, endocarditis builds up over months and the symptoms are more vague - a low fever, chills, night sweats, pain in the muscles and joints, headache, shortness of breath, poor appetite, weight loss, tiny broken blood vessels on the whites of the eyes, inside the mouth, on the chest, fingers and toes and odd chest pains.

**Treating endocarditis**

If treated early with antibiotics, endocarditis usually responds well. If it is not detected or treated it can be life-threatening.

If you think you might have endocarditis, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent dirty hits, we recommend following the guidelines discussed in Chapter 2. In particular, avoid injecting near skin infections or wounds, no matter how small. The bacteria most frequently responsible for endocarditis in injectors is staphylococcus aureus (s. aureus), the same germ that can cause things like septicaemia, cellulitis and abscesses. This bug can live in the mouth too, so don't blow into baggies or lick spoons or injection sites - that's another way of spreading staph.

If you have a heart condition, a damaged immune system (e.g., through HIV/AIDS) or have had endocarditis in the past, let your doctor and dentist know before you have surgery or dental work.

**Septicaemia**

Septicaemia, or blood poisoning, can be caused by bacteria (germs) that gets into the bloodstream through unhygienic injecting - things like using contaminated water, using unsterile filters, or having dirty hands. Septicaemia can also occur when a local infection such as an abscess is not properly treated.

Among the initial symptoms are chills, fever and feeling totally exhausted. Like endocarditis, septicaemia can be treated with



antibiotics, but can be life-threatening if left to progress. If you think you might have blood-poisoning, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent blood poisoning, follow the guidelines discussed in Chapter 2.

### Eye infections

You might think that eye infections have little or nothing to do with injecting. But there are some kinds of eye infections caused by some injecting practices i.e. using lemon juice to mix up. The fungus that is on the lemon is injected into the blood stream and lodges in the eye where it settles. In Australia, a small number of reported eye infections are known to have come about when people have injected Bupe tablets that have spent time in someone's mouth. The infection comes about when the tablet picks up traces of the Candida fungus, which can live in the mouth or in wounds on the skin.

This kind of eye infection may be preceded by small infections around the hair follicles on the scalp or other parts of the body, or around the injection site where the fungus entered the body. Some days afterwards, the symptoms in the eye appear: a red, bloodshot, or painful, eye, sensitivity to light, blurred vision, partial loss of vision and spots. If left untreated for an extended period, it can lead to glaucoma, cataracts and loss of sight.

This kind of infection often requires a physical examination of the eye, as well as blood testing. However, diagnosis may be less complicated when the person's injecting history is known.

The treatment for these kinds of eye infections may require injections of anti-fungal medications and/or steroids, followed by anti-fungal tablets. The dosages and length of treatment varies from person to person. Sometimes the problem can return once the medication has been stopped. If the symptoms reoccur, seek further treatment.

If you think you might have an eye infection through injecting, it is really important to get checked out properly and if necessary, get proper medical care in hospital.

To prevent eye infections, follow the guidelines discussed in Chapter 2.

**TIP: To prevent eye infections, never inject anything that has spent time in your mouth or another person's mouth (e.g., buprenorphine and methadone).**

**TIP: If you need something to dissolve your dope, use powdered citric acid, not lemon juice or vinegar.**

### Tetanus

Tetanus spores live in the soil and in dirt that you may not be able see - on floors, other surfaces and hands. If you drop your fit, for example, it may become contaminated: throw the fit away and get a new one. Wash surfaces and your hands before preparing your hit. Tetanus among IDUs has been reported although it is not common. There is a vaccine so it would make sense for users to have it.

A booster shot is required every 10 years.

### Tuberculosis

Commonly known as TB, tuberculosis is very rare in Australia. However, it seems to be on the rise in many countries overseas, even those where it seemed to have been eradicated.

TB is caused by a bacteria called *Mycobacterium tuberculosis*. New strains, some resistant to treatment, have emerged over recent years.

Some people become ill when they're first exposed to TB. But in most reasonably healthy people, the immune system traps the bacteria. But years later, the bacteria can break away from this trap and spread to other parts of the body: the lining of the heart and the abdominal cavity, the brain, bones and joints, the voice-box, the lungs and lymph nodes.

Someone with TB disease may have any, some, or none of the following symptoms:

- tightness or pain in chest, coughing blood
- shortness of breath

- loss of appetite
- fever, gradually rising through the day and night-sweats
- lumps in the neck or swelling of the joints

Most kinds of TB can be treated. If you develop these symptoms it is important to see a doctor, especially if you have had TB in the past.

## Overdose

Overdoses happen when you have too much of a drug, or a combination of drugs, in your system. This can produce a range of symptoms: vomiting, paranoia, fitting, unconsciousness and can also lead to death. Illicit drugs affect not only the mind, they can also affect other parts of the body and when more than one drug is taken the results can be unpredictable.

### Causes of OD

Only a small number of overdoses are actually caused by taking just one drug. More often, overdoses are caused by using opiates (e.g., heroin/methadone, MS Contin™) in combination with other drugs such as alcohol and benzos. When these drugs are present in large quantities in the body, a 'normal' or 'usual' shot can prove fatal.

Another important factor in overdose is how much drug someone is used to taking (their 'tolerance') and the strength or purity of the drug in question. A person who hasn't used for several days or longer will need less of a drug to cause an overdose, because their tolerance level will have fallen.

Overdoses can happen fast (even before someone gets the fit out of their arm), after 15-20 minutes, or later when they've 'crashed out'. A large number of overdose deaths occur some hours after the injection. This means that if you are present you may have time to save someone's life.

But remember, a drug doesn't have to be injected to cause an overdose. And overdoses are not only caused by heroin.

### Signs of OD

Overdoses can look different, depending on whether the drug causing the overdose is a 'depressant' such as alcohol, heroin, benzo, or a 'stimulant', such as speed/ice/crystal/cocaine.

A person experiencing a 'depressant' OD may:

- have blue or pale lips, fingernails and toenails
- vomit continuously
- make gurgling, snoring, or choking sounds
- be unconscious (e.g., not respond to a pinch of the earlobe)
- stop breathing even though their heart is still beating
- stop breathing as well as having their heart stop beating (cardiac arrest)

A person experiencing a stimulant OD may:

- have a seizure (fit)
- stop breathing or start to breathe or pant really fast
- have chest pain
- collapse
- vomit continuously
- have a stroke, experience sudden weakness or numbness in the face, legs, or arms, have difficulty talking, blurred or dimmed vision, sudden or severe headaches, ringing in the ears
- psychosis, unusually anxious, aggressive, or hallucinatory behaviour
- fall unconscious

## What to do if someone ODs

### DANGER

Check for danger to yourself, others and the casualty.

### RESPONSE

Check for response. Ask casualty's name and gently squeeze shoulders:

**No response:** Open mouth and look for foreign material.

**Response:** Make casualty comfortable monitor signs of life.

### AIRWAY

**No foreign material:** Leave on back. Open airway.

**Foreign material in mouth:** Recovery position. Open and clear airway.

### BREATHING

Check for breathing. Look, listen, feel for breathing.

**Not breathing:** Call 000 for an ambulance. Give 2 initial breaths. Check for signs of life.

**Breathing:** Place in recovery position, monitor signs of life.

### CPR

**No signs of life:** Unconscious, not breathing, not moving.

Start CPR. 30 compressions, 2 breaths. Continue CPR (30:2) until help arrives or casualty recovers.

It's not always easy to tell the difference between someone nodding off or an overdose. Here are a few indications that it's time to call an ambulance:

- Call their name, pinch their earlobe, call out the word 'narcas'. If they don't respond, it's time for the ambulance
- Check the person's breathing. If they're having 4 or less breaths a minute, it's time for the ambulance



It is important to do something quickly. Most deaths from OD happen because a person's airway is not kept open. Once their breathing stops, there is nothing to prevent them from dying or ending up with brain damage due to lack of oxygen.

Remember that a fast response can mean the difference between life and death. Follow these steps.

## Resuscitation guidelines

### Ambulance, police & ODs

Ambulances have saved many people from dying because of an OD. When they're called to an OD ambulances are not required to call the police. In most parts of Australia, it is now policy that police stay well clear of ODs. The only legitimate reasons for police being present are if the ambulances feel concerned for their own safety, if there is violence or a history of violence at that address, or if a death occurs.

When someone recovers from an overdose they can refuse to go to a hospital. If this happens, the ambos will ask the person to sign a form stating that they are voluntarily declining the offer against the advice of ambulances. It is always safest to go to the hospital after an overdose.



This is for legal protection, particularly if the person involved drops again shortly after. If they do drop again, call the ambulance again. Don't be afraid to call them as often as you need them: they are there to save lives. Remember: when you ring you can ask the ambulance to not use the siren or flashing lights as they approach.

### Narcan

Narcan is an injectable substance that counteracts the effects of opiates such as heroin, methadone and morphine. It is given to people who have overdosed on these drugs. Its effect is almost immediate.

Narcan works only on opiates and if a person has had a mixture of drugs it may not work properly. It doesn't work on pills such as benzos or on alcohol. Ambulances, accident and emergency departments and some GPs carry Narcan. In Western Australia it is available on prescription, as an intramuscular injection. It is hoped this service will be extended throughout Australia once the benefits become more acceptable.

When someone who has overdosed is given Narcan they will come to feeling very straight or hanging out. Reassure them that everything is ok and explain what has happened. Discourage them from using again by explaining that the Narcan will wear off within half an hour and they will then be very stoned and could even drop once more. Using again would mean they would certainly drop, again threatening their life.

### What to do if someone has a fit (seizure)

People can have fits:

- just before or as they OD (e.g., on stimulants such as cocaine and methamphetamine (ice/crystal/speed))
- when they're coming down off pills (benzos) or alcohol
- because they have epilepsy

When a fit begins, the person will probably fall to the ground.

Their muscle contractions will cause repeated and uncontrolled jerking. They may lose control of their bladder or bowels or make strange sounds. Or they may remain very still, with just their eyelids flickering - this is another kind of fit.

unconsciousness and then sleep. Fitting is very exhausting. The person will probably not remember anything much about the experience.

### What to do if someone is fitting:

- call the ambos. Better safe than sorry. The ambos can check the person out thoroughly and provide advice about further treatment or care. Having one fit does not always mean the start of epilepsy, but it may mean that medication or tests, or both, might be needed in the future. Of course, if the person is conscious, they can refuse this treatment
- stay with the person who is fitting and clear the area of any obstacles (such as tables and chairs) that they might hurt themselves on
- gently put a pillow, your hands, or something soft under the person's head to stop them from hurting their head on the floor
- take note of the time and of what happens during the fit. You will be able to tell the person about it when they wake up and you might be able to give important information to the ambos
- loosen the person's clothing if it seems too tight. Watch their breathing, especially when the fit is over
- don't put anything, including fingers, in their mouth: you may get bitten or end up blocking their breathing. They won't swallow their tongue. Don't try to pull dentures out unless they are blocking the person's airways
- when the fit is over and the person is unconscious or very drowsy, put them in the recovery position on their side on the floor, with their top arm and leg (bent at the knee) in front of them a little and their head gently tilted back to let their airway open. Keep checking their breathing and their pulse
- when the person comes around, tell them what happened. People are often scared and disoriented after a fit, and it helps to tell them where they are, what's going on, and if an ambo is on the way.