

FEMORAL INJECTING

A GUIDE TO INJECTING IN THE GROIN USING THE FEMORAL VEIN

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for general distribution)

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INTRODUCTION

This resource has been produced by some older intravenous drug users (IDU's) who, having compromised the usual injecting sites, now inject into the femoral vein.

We recognize that many IDU's continue to use as they grow older, but unfortunately, easily accessible injecting sites often become unusable and viable sites become more difficult to locate. Usually, as a last resort, committed IDU's will try to locate one of the larger, deeper veins, especially when injecting large volumes such as methadone.

Many of us have had no alternative but to 'hit and miss' as we attempted to find veins that we couldn't see, but knew were there. This was often painful, frustrating, costly and, in some cases, resulted in permanent injuries such as the example shown under the heading "A True Story" on page 7.

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DISCLAIMER

The information that follows is offered in good faith, but we also want to highlight that femoral injecting is a HIGHLY DANGEROUS ACTIVITY and should be avoided at all costs. As we have said above, we know that some IDU's will try to find their femoral veins regardless of the potential risks. It is our aim to provide information that might help to reduce these potential risks and harms as much as possible.

We neither condemn nor condone intravenous drug use, nor do we encourage anyone to participate in any activity which may be unlawful. The authors take no responsibility for any misfortunes which may result from any actions taken, based on the material contained herein, neither can we indemnify readers against any harms incurred.

2. FEMORAL INJECTING: GETTING STARTED

Before any injecting episode, make sure you have a clean, well lit and comfortable place where you are unlikely to be interrupted or disturbed unexpectedly.

Make sure you have a full range of injecting equipment, including alcohol swabs, cotton wool and a clean towel to stem excessive blood flow should you hit an artery and have to withdraw urgently.

Some femoral injectors prefer to be sitting down: - others prefer to stand. Irrespective of which position suits you best, make sure you are comfortable and try and adopt the same position each time you inject.



Fig. 1 Assemble all the equipment you are likely to need.

Make sure you have enough injecting and other materials. Use a 'Clean Fit for Every Hit'. Use 'Luer – Lok' fittings if available. Ensure the needle won't accidentally separate from the barrel.

The needle needs to be long enough to reach and enter the vein properly. Some people will need a 21g. by 1.5 inch (green) needle, but many find that a 23g. by 1.5 inch (blue) needle works best. Using a bigger needle than necessary simply leaves a bigger wound to heal each time you inject.

Ensure safe disposal of ALL used syringes and other injecting equipment.

3. THE FEMORAL VEIN: - Where is it?

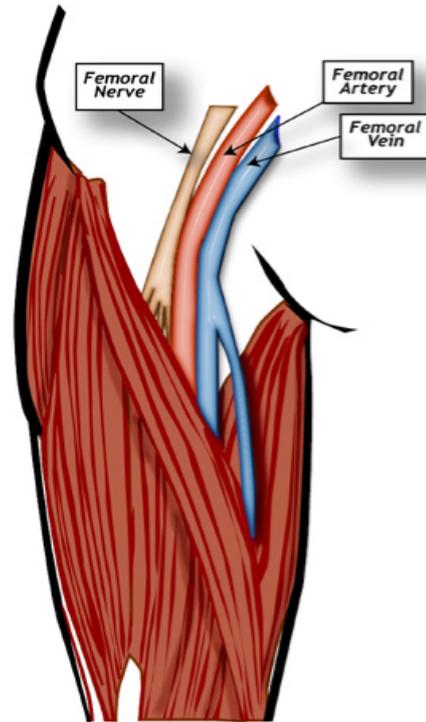


Fig. 2 A diagrammatic representation of the Femoral Nerve, Artery and Vein. (Front View - Right leg)

4. LOCATING THE FEMORAL VEIN

REMEMBER: always wash your hands with soap and water and use alcohol swabs to properly clean the injection site.

There is a real risk of hitting the femoral artery, so be prepared to stem excessive blood flow. Keep a clean towel handy for yourself, as well as access to clean, warm, soapy water, disinfectant and other equipment that might be needed to clean - up spilled blood.

1. Locate the femoral PULSE in your right groin
2. Gently place the middle finger of your right hand over the pulse. (see Fig.3 overleaf)

Locating the Femoral Vein (cont'd)



Fig. 3 Locating the Femoral Pulse.

3. Next, let your index finger rest naturally beside the middle finger.

4. The Femoral vein should lay at a point below the upper side of the index finger. (see Fig. 4)



Fig. 4 Determining the injection site.

5. INSERTING THE NEEDLE AND INJECTING

1. Carefully insert the needle towards the centre of your body, immediately next to the index finger.

2. Push the needle in straight (i.e. at a 90 degree angle to the leg surface).

3. Pull back the plunger to establish that the needle is in the vein. (Venous blood has been de-oxygenated and is dark red in colour.)



Fig. 5 Inserting the needle and injecting.

4. Always inject slowly and remove the needle slowly. (Damage can occur if the needle is removed too quickly.)

5. Be prepared to stem bleeding.

Following this guide will not guarantee that you will hit the femoral vein, but should make it less likely that you accidentally hit the artery or nerve.

The femoral artery, vein and nerve are very close together although their relative position varies from person to person.

6. HITTING THE FEMORAL ARTERY

If you hit the femoral artery, bright red, frothy blood can rush into the barrel of its own accord, as it is subject to arterial pressure. If this happens, **DO NOT GO ANY FURTHER!**

HITTING THE FEMORAL ARTERY (cont'd)

Before you gently remove the syringe, reach for something clean and sterile to help stem bleeding, as blood may spurt from the site when the syringe is removed. Gently apply firm pressure to the injecting site until the bleeding stops.

Do not attempt to inject again until you have cleaned up any blood spilled around the injection site.

Start again, but this time, insert the needle into the leg a little further towards the centre of the body.

Never inject into a blood vessel in which you can feel a pulse. Accidental arterial injection sometimes causes weakening of the artery wall (pseudoaneurysm), fungal infection of the artery wall (mycotic aneurysm) or formation of an abscess over the injection site. These conditions can AND DO lead to life – threatening arterial bleeding.

If you hit an artery. DO NOT INJECT! Blood in the artery is being pumped down the leg and injecting into it can cause the blood supply to be blocked which could result in a deep vein thrombosis (DVT), gangrene in the leg or foot, eventual amputation and loss of part or all of the leg. If you hit an artery, gently remove the syringe, lie down, raise the limb and apply firm pressure to the site until bleeding stops.



Fig. 6 Getting ready to withdraw and stem bleeding.

If you are bleeding heavily, get a faster pulse, go pale or feel faint, call 000 for an ambulance.

You may require medical help, because there can be a lot of bleeding in the leg without it being visible and without any obvious blood on the surface.

7. HITTING THE FEMORAL NERVE

The femoral nerve controls the muscles that help the knee bend. It also supplies feeling to the front of the thigh and part of the lower leg. Hitting the femoral nerve causes a sharp pain that radiates down the whole of the leg. You will instinctively remove the needle, but do so slowly and be ready to stem any blood flow. If you damage the femoral nerve, it can cause weakness, difficulty with walking and problems with other leg actions as well as loss of feeling in the leg. Sometimes, slight nerve damage can self – repair, but nerve damage can be permanent.



Fig. 7 Gently apply firm pressure to stem bleeding.

8. KEEPING THE INJECTING SITE HEALTHY

Once people have located their femoral vein, they inject in the same place over and over again. Injecting in the same place will cause a hole to form down to the vein which never gets a chance to heal. Eventually, a deep cavity (or sinus) can form at the injecting site. Sinuses are permanent tracks from the vein to the skin surface caused by persistent use or infection.

KEEPING THE INJECTING SITE HEALTHY (cont'd)

Reduce the risk of infection by keeping the injecting site clean. Wash the area with warm, soapy water, rinse with clean water and make sure the site is dried properly.

Remember to use a 'Clean Fit for Every Hit', wash your hands carefully before preparing your hit and use alcohol swabs before injecting.

If your injecting site becomes hot or red, starts weeping or oozing and becomes smelly, stop using the site and see your doctor. You will probably need a course of antibiotics to clear up the infected site. If you do nothing and just hope it will go away, you can get blood poisoning which can make you extremely sick. Blood poisoning can kill.

9. ROTATING INJECTING SITES

It is always good practice to rotate your injecting sites so your veins have a chance to recover.

If you already inject on both sides of the groin, it probably makes sense to continue to use both sides. But if you use one side, the risks of hitting the artery or nerve means that trying to find the vein on the other side may create more risks than benefits.

If you are injecting into your femoral veins to disguise where you inject, and you still have viable veins left in your arms, you should switch to injecting there – it is more visible, but much less risky.

10. BLOOD CLOTS

Injecting in the groin can cause dangerous blood clots to form in the deep veins of the leg. This is known as a 'Deep Vein Thrombosis' (DVT). DVT's can form at or near the injection site, or lower down in the leg around the calf muscle. The symptoms of a DVT include redness, pain and swelling of the leg. If you inject in the groin and you get these symptoms, you should go to the hospital emergency department.

If you have symptoms of a DVT and you get chest pains and become breathless, call an ambulance. The blood clot may have broken away from the vein, traveled up through your body and got stuck in the lungs. This is known as a pulmonary embolism (P.E.) and can be life threatening.

Blood clots can be treated with injections that dissolve the clot. Warfarin tablets may be prescribed, but if so, it's necessary to carefully check the levels of the drug in the bloodstream daily. This can be extremely difficult, if not impossible, where the venous system has been damaged to the stage

BLOOD CLOTS (cont'd)

where femoral injecting is the means by which a vein is accessed. Other anti-coagulants such as Heparin or Clexane may be prescribed. These drugs do not need to be monitored daily as does Warfarin.

11. POOR CIRCULATION

Repeated injecting in the same place can cause veins to collapse. This usually takes longer in the groin than it does with the veins in the arms because it is a bigger vein, but the consequences are much more serious. This is because the veins in the arms can take a different route using peripheral circulation, a feature not found in the legs.

The femoral vein is the main route out of the leg. Blocking it means that blood cannot flow through the leg quickly enough to stay healthy and warm. People with collapsing femoral veins often have swollen, painful legs and cold, blue toes. Continuing to inject in the leg can lead to tissue death and amputation of part or all of the leg.

12. ULCERS and ABSCESSSES

Injecting over and over at the same site can make it difficult for the skin to repair. Often, the skin will appear shiny and be painful to touch. Even small knocks or cuts can develop into painful open sores called ulcers. Sometimes ulcers won't heal easily and can require constant treatment and dressing changes by a specialist nurse. Ulcers can be extremely painful and may require daily treatment over many months before they get better.

Abscesses often appear on or near an injection site as a result of introduced bacteria. Usually, infection appears as a swollen, extremely painful tender red area that may ooze pus or other matter that has an unpleasant smell.

If you notice a swelling develop on or near an injecting site in the groin, do not put off having it seen to by your G.P., or attend the Accident and Emergency Department of your nearest hospital as a matter of urgency.

Abscesses can develop very quickly and often need to be lanced and drained by a G.P. A course of strong antibiotics is usually prescribed to help clear the infection.

13. A TRUE STORY

The picture below graphically illustrates how femoral injecting can, over time and using poor technique, result in life – threatening damage.

Fig. 8 (below) shows scarring after life saving emergency surgery was performed to repair the femoral artery in the Right leg. An abscess had formed over the injecting site and the resulting infection, plus years of incidental damage to the arterial wall caused the artery to rupture when the abscess burst. Fortunately, this occurred after the subject had already been admitted to hospital, where emergency surgery was immediately available.

The femoral nerve was damaged during surgery which lasted over 6 hours. The nerve could take over 12 months to repair but full function may never be regained.

Had the artery ruptured at home, or even in an ambulance, it is probable that massive arterial blood loss would have caused death.



Fig. 8 A ruptured Femoral artery (R. leg) requiring life—saving emergency surgery.

The scarring on the Left leg results from separate surgery performed to flush infection from a large cavity (sinus) formed after repeated femoral vein injections over many years. Both the femoral artery and vein were badly damaged and, until treated surgically, would most likely have developed into a severe mycotic aneurysm leading to a ruptured blood vessel and death through blood loss.

14. ALTERNATIVES TO INJECTING

Rather than continuing to inject into your femoral vein until you cause serious damage, it might be time to consider some safer alternatives such as...

Smoking... ‘Chasing the Dragon’ (smoking heroin on foil) is an effective, safe route of administration. Sniffing...some people who run out of viable injecting sites have switched to the anal route. It’s not glamorous, but it does work. Your bowel can absorb drugs nearly as fast as injecting.

Sniffing...is safer than injecting in that transmission of Blood Borne Viruses is avoided (provided you use separate sniffing equipment), although prolonged frequent sniffing of drugs (especially cocaine) can lead to damage of the mucous membranes in the nose and can cause, or exacerbate, sinus problems.

Swallowing... is by far the safest method of using drugs. Powders can be mixed in a drink or wrapped in a cigarette paper (to reduce the unpleasant taste) and swallowed (‘bombing’). Rather than risk serious damage trying to inject benzodiazepines, swallowing is the far safer alternative and the effect, although a little slower, will ultimately be the same.

REMEMBER... if you don’t already inject into your groin, the best advice is simple...**DON’T START!** It is dangerous and can lead to serious complications including loss of limbs and even **DEATH.**

15. RESOURCES

This resource was compiled by drug users for drug users as a peer education resource. It is designed to be passed on through user networks to people already considering or injecting in their groin. It is not to be distributed as a general peer education resource. The main authors include Andrew Bulig, Anthony Millin and Kim Moran. Photographs by Andrew Bulig. Thank you to all the other peers and experts who gave freely of their time, facilities and expertise - you know who you are.

16. REFERENCES

‘In the groin’ - femoral injecting . Exchange Supplies, U.K. 2003.
www.crystalneon.co
www.drugtext.org
www.saferinjecting.org
www.aivl.org.au

REMEMBER, THERE IS NO SAFE WAY TO INJECT INTO THE FEMORAL VEINS. INJECTING INTO THE GROIN IS A HIGH RISK ACTIVITY. If you don’t inject into your groin **DON’T START!**

To find out more about injector health and peer support in your local area go to: **www.aivl.org.au**