

getting off right

**A Safety Manual
for Injection Drug Users**



HARM REDUCTION COALITION

working towards individual and community health

Contents

Introduction.....	i
I GETTING READY: PREPARING YOURSELF & YOUR EQUIPMENT	1
Setting, Environment & Mood	2
Where You Use	2
Who You Use With	4
Assessing Your Mood	5
Choosing Your Materials	5
Needles & Syringes	6
Guidelines to Safer Injecting.....	10
How to Clean a Needle & Syringe	11
Cookers & Spoons.....	13
Cottons (Filters).....	14
Mixing & Rinse Water.....	16
Tourniquets.....	17
Lighter or Matches.....	19
Other Helpful Materials.....	20
Preparing Your Shot	20
First Steps	20
Cooking Your Shot	21
Dividing Drugs	23

2 GETTING OFF: THE BASICS OF SAFER INJECTION	25
Taking Control	26
Mainlining	27
Choosing an Injection site.....	28
Cleaning the Injection Site	28
Tying Up.....	29
Inserting Your Needle	29
Registering.....	29
Pulling Out.....	31
Missed Shots & Aftercare	32
Mainlining Cocaine	32
Mainlining Crack.....	33
Shooting Speed.....	33
Hierarchy of Safety for Choosing Intravenous Injection Sites	34
More Tips for Choosing an Appropriate Injection Site	38
Veins vs. Arteries	38
Veins vs. Nerves	40
Exercises for Improving Vein Visibility.....	40
Some Tips for Getting Veins Up.....	40
Muscle-Popping	41
Choosing an Injection Site	42
Cleaning the Injection Site	43
Inserting the Needle	43
Pulling Out	44
Muscling Hormones	44
Skin-Popping	44
Choosing an Injection Site	45
Cleaning the Injection Site	45
Inserting the Needle	45
Pulling Out	46

3 	POTENTIAL HEALTH COMPLICATIONS OF INJECTION DRUG USE	47
	Bacterial, Viral & Other Infections	48
	Dirty Hits	48
	Blood Poisoning (Septicimia)	48
	Endocarditis	49
	Tetanus	49
	Necrotizing Fasciitis	50
	Wound Botulism	51
	Hepatitis	52
	HIV	56
	Injection Related Injuries	57
	Tracking & Bruising	57
	Vein Collapse	58
	Abscesses	59
	Emboli	62
	Taking Care of Your Health	62
4 	OVERDOSE AND OTHER MEDICAL EMERGENCIES	65
	What Is an Overdose?	66
	How Do O.Ds Happen	67
	How Can You Tell if a Person Has Overdosed?	70
	What to Do if Someone Overdoses	71
	What You Should Not Do if Someone Overdoses	74
	Narcan	75
	Accidental Needlestick Injuries	76
5 		
	TOOLS OF THE TRADE: WHERE TO GET NEW EQUIPMENT	
	& WHAT TO DO WITH THE OLD	79
	Safe Storage and Handling of Injection Equipment	80
	Proper Disposal of Used Equipment	80
	Where to Get New Materials	80

A compilation of medical facts, injection techniques, junky wisdom, and common sense, this manual reflects HRC's commitment to providing accurate and unbiased information about the use of illicit drugs with the goal of reducing harm and promoting individual and community health.

INTRODUCTION

One of the results of the United States' "zero tolerance" approach to drug policy is a serious lack of accurate information about drugs and drug use. This lack of information makes it extremely difficult for people to make rational and informed decisions about using drugs. "Just say no" is an inadequate message to give anyone about drugs, but is especially dangerous for those individuals already using them. Drug users and those thinking about using drugs need unbiased, non-judgmental, reliable information about the desired effects and undesired risks of the drug(s) they are using or contemplating using.

In addition to the benefits they may experience, some individuals experience extremely negative consequences as a result of using

Contrary to popular opinion, there are many things that we as drug users can do to take care of ourselves and reduce the possible health and other risks associated with using illicit drugs.

illicit drugs. Some of these harms may be attributable to the effects of the drug itself on the body and the mind. More often drug-related harm is the result of the numerous social, economic, legal, cultural, and political factors that shape the way illicit (illegal) drugs are made available and the conditions under which they are used. Poverty, racism, social isolation, past trauma, sex-based discrimina-

tion, and other social inequalities all affect people's vulnerability to and capacity for dealing with drug-related harm. Punitive laws, social policies, and the intense social stigmatization of and discrimination against illicit drug users serve to drive us away from friends and family, as well as health and social services. These are just a few of the factors that increase the dangers associated with using illicit drugs.

Contrary to popular opinion, there are many things that we can do to take care of ourselves and reduce the risks associated with using illicit drugs. This manual challenges us to take a close look at all the steps we engage in when preparing and injecting drugs in order to figure out if that process can be made safer anywhere along the way. Even if you've been injecting for years, chances are that there are things you can change about the way you do it to help you avoid disease and maintain good health; reduce your likelihood of experiencing injection-related injuries or accidents; help make the fact that you inject drugs less noticeable (if this is something that concerns you); or ensure that injecting remains a viable, comfortable, and safe option for administering your drugs

in the future. Reading this manual might also make you decide that injecting drugs carries too many risks, and that snorting or smoking are more preferable alternatives. Such a decision would be a valid and important way of reducing drug-related harm.

Share this booklet and what you learn with other injectors! Most of us taught ourselves how to inject through a process of trial-and-error that undoubtedly included lost shots, painful misses, swollen limbs, and a great deal of frustration. This manual is intended to help minimize these problems. We need to take responsibility for helping each other live safer and more satisfying lives, free from unnecessary disease and illness and with dignity.

The Harm Reduction Coalition (HRC) does not condone or condemn the injection of illicit drugs. Rather, we recognize that drug injection is a potentially hazardous and intensely stigmatized behavior which many people already engage in and will continue to engage in — in many instances for years at a time — and a behavior that many others will experiment with or come to adopt in the future. A compilation of medical facts, injection techniques, junky wisdom, and common sense, this manual

This manual challenges those of us who shoot drugs to take a close look at all the steps we engage in when preparing and injecting drugs in order to figure out if that process can be made safer anywhere along the way.

reflects HRC's commitment to providing accurate and unbiased information about the use of illicit drugs with the goal of reducing harm and promoting individual and community health.

Drug use is a complex experience and issue which affects those who use, their loved ones and the communities in which they live. We hope that this manual will serve to reduce the associat-

ed dangers for people who use drugs or who are affected by drug use. While we can't predict every possible scenario you

As injectors, we should always be in control of our own drug preparation and intake and not have to rely on anyone else for this; we should always be in control of what goes into our own bodies and how.

might encounter; we hope the examples presented in this manual show you how common sense and planning can make any drug using experience safer.

The Harm Reduction Coalition (HRC) is committed to publishing non-judgemental information that is relevant to the lives and health of drug users. HRC will be following through on this commitment with future publications.

Please let us know what in this manual is useful, what isn't useful, what you would like more information about, and any other comments or suggestions you might have.

IN THIS CHAPTER

- Setting, Environment & Mood
- Choosing Your Materials
- Preparing Your Shot

There are many steps along the way where something can go wrong, but equally as many places where you can make the process safer.

CHAPTER ONE

GETTING READY: PREPARING YOURSELF & YOUR EQUIPMENT

Preparing for and planning your injection drug use (or any drug use) is one of the most important things you can do to achieve your desired results and to prevent potentially harmful mistakes from occurring in the process. Drug injection is a rather complex activity. There are many steps along the way where something can go wrong, but equally as many places where you can make the process safer. **Before injecting, you should (1) assess the safety of your setting and evaluate your state of mind; (2) make sure you have the best materials you can get, and enough of them; and (3) prepare your drugs as cleanly as possible.**

SETTING, ENVIRONMENT & MOOD

Unfortunately, we don't always have complete control over how we're feeling when we want or need to get high or the circumstances under which we use. **While we may not always be aware of it, where we use, who we use with (if anyone), and our state of mind when we're getting high can all have an impact on injection safety.**

WHERE YOU USE

Some places are safer for injecting than others, and you should always choose from among your options the safest one possible. The ideal location for injecting is one that is relatively clean, dry, warm, and well-lit, and where:

- ▶ your chances of getting caught by the police are minimal
- ▶ you feel comfortable that there will be no surprise interruptions or unwanted observers
- ▶ you can take as much time as you need
- ▶ you have adequate space for yourself and your equipment
- ▶ you have access to a sink or other source of clean water
- ▶ you are sheltered from the wind and weather.

All of these factors should be weighed against each other when choosing a place to get off. It is clear, then, that using in your own home (if you're fortunate enough to have one) or the home of a friend is safer than using in a public bathroom. However, a public bathroom—particularly if it's a single room with a door that locks—is usually safer than injecting in a place such as a public park or the stairwell of an apartment building. In general, but not

always, indoor locations are safer than outdoor ones, and definitely preferable in terms of wind and weather.

If you're injecting in a relatively public place, like a toilet stall in a public bathroom, try to make it look like you're changing your clothes or freshening up. If you

know you'll have to be getting off in a location like this where there is no direct access to a sink, bring along a small bottle of water to mix your shot with (it's probably a good idea in any case to make water a permanent part of the works you carry). Most importantly, always try to stay as calm as possible no matter where you're injecting. While it can be nerve-racking getting off in a public or semi-public place or some-

Be considerate of others—no one likes coming across a used needle and syringe in their apartment building or seeing bloody tissue in a public toilet, and there's no reason they should have to.

where else where you're afraid of getting caught, it's important to **keep your wits about you** so that you don't end up knocking over your shot, spilling your drugs, being unable to get a hit because you're so nervous, or getting blood all over.

So, use common sense and planning when choosing a location to inject. If at all possible, wait to get off until you've found a place where you feel relatively comfortable and can minimize the risk of getting arrested. Make sure you have all the materials you need before you begin, and don't assume you'll always have access to water. Finally, be considerate of others—no one likes coming across a used needle and syringe in their apartment building or seeing bloody tissue in a public toilet, and there's no

reason they should have to. Drug injectors have a bad enough rap as it is. **Let's not give people the ammunition to keep us marginalized and oppressed!**

WHO YOU USE WITH

Although it is not always (and for some people ever) desirable or possible to inject with someone else present, having another person around when you get high can be a safety net, particularly in terms of surviving overdose. For those who live alone, however,

It is important to try to put together a support system of people who know you use and who you can rely on for support or in case of an emergency.

having someone else present every time you inject may be unrealistic; and some people simply prefer using by themselves. Another complication is that many of us use in secret for fear that we'll be rejected or judged by those we come out to. It is important to try to put together a support system of people who know you use and who you can rely on for support or in case of an emergency. This may be

easier said than done, however, and even though injecting drugs may have become a mundane activity for you, it is frequently shocking for non-users to learn that someone they know engages in this activity. Disclosing your use to the wrong person could add untold stress to your life, so make this decision carefully.

Try to make yourself available to other users who may need support. If you're worried that a friend has been using too much, for instance, have them check in with you by phone after they get high to make sure everything is okay. And finally, avoid using with people you don't like or who could care less about what happens to you if you were to overdose.

ASSESSING YOUR MOOD

The quality of any drug experience is determined not only by the drug itself (including factors like potency and purity), but also depends on how the drug is administered, the environment in which it is taken, and the mood or mindset of the individual at the time he or she takes the drug. It is therefore important for anyone who is going to take a drug to assess their mood and mindset before they get high. You should always be aware of how you're feeling prior to altering your consciousness.

Feeling relaxed, confident, and calm will help insure that you will take your time to inject hygienically and properly. If you're in withdrawal, panicked about getting high in a public bathroom, or otherwise anxious and upset, the chances of something going wrong increase. Take a few deep breaths and try to gain some composure before you begin to prepare and inject your drugs in order to prevent accidents and make sure you get a hit without harming yourself in any way.

CHOOSING YOUR MATERIALS

There are a lot of materials needed to inject drugs—what those of us who use refer to as our “works.” **Ideally, the type of equipment someone uses to inject will be appropriately matched to the drug they're using, where they plan to inject it, the condition of their veins (if they're mainlining), and other factors.** Unfortunately, drug injectors do not always have regular, legal access to the materials they need and are frequently forced to make do with what they can get. This section of the manual discusses what materials are best for injecting drugs and how to use

them safely; and offers suggestions for second-best options when the safest equipment is for some reason unavailable.

NEEDLES AND SYRINGES

The needle and syringe is arguably the most important piece of equipment needed to inject drugs. Due to legal restrictions on possession and over-the-counter sale, it can also be the most difficult piece of equipment to obtain.

Needles and syringes are **not** all the same. It is important to find a needle and syringe that you feel comfortable with, so if you have the opportunity, experiment with different types, sizes, and brands of injection equipment until you've found the one that works for you. Or you may find that you'll use different equipment at different times depending on what and where you're injecting. Among the things you should consider when choosing a needle and syringe are:

NEEDLE GAUGE, which refers to the size of the bore or hole in the needle. With needles it is important to remember that the higher the gauge, the thinner the needle (and the smaller the hole). A 28 gauge needle (abbreviated 28G) is therefore thinner than a 25 gauge needle, which is in turn thinner than an 18 gauge needle. Most intravenous injectors use either a standard insulin set which typically has a 27G or 28G needle (and an orange cap), or a standard tuberculin set with a 25G needle (frequently referred to as a bluetip because of its color).

The smaller gauge needle you use, the smaller the puncture wound, and therefore the less opportunity for infection to occur. Using a smaller gauge needle is also likely to

result in less bleeding. Intramuscular injections must be given with larger gauge needles (frequently 21G or 23G), and certain substances such as injectable steroids and hormones can only be administered intramuscularly. Intravenous injectors typically use needles no larger than 25G, and whenever possible, needle gauge should be matched to the size of the vein into which you're injecting. If you're using small, delicate veins like those in the hands, for instance, a thinner needle such as a 28G is the safest choice.

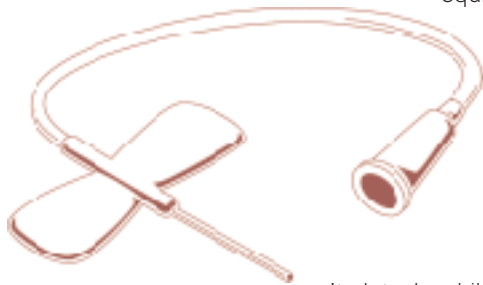
Drugs that are cut with a lot of impurities, like white powder or tar heroin, may clog the point of the syringe. The higher the gauge (therefore the thinner the needle and the smaller the hole), the more likely it is that the point may get clogged. This is particularly true with brown tar heroin.

NEEDLE LENGTH. Insulin needles are typically $\frac{1}{2}$ inch in length and tuberculin needles are typically $\frac{3}{8}$ of an inch in length—lengths that most intravenous drug injectors find adequate if not ideal. **A needle that is too short may miss your vein, and one that is too long may go right through it or be difficult to properly position.** Longer needles are often appropriate for intramuscular injections. As inscribed on packaging, needle length appears after the gauge number: 28G $\frac{1}{2}$ refers to a 28 gauge needle that is $\frac{1}{2}$ inch long.

BRAND. Most drug injectors find that, if given the opportunity to try out different brands of needles and syringes, they will find one that they prefer over all others. Different manufacturers create needles and syringes of varying quality. Some brands of needles are more comfortable to inject with than

others, and the plungers on some brands of syringes are easier to manipulate than on others.

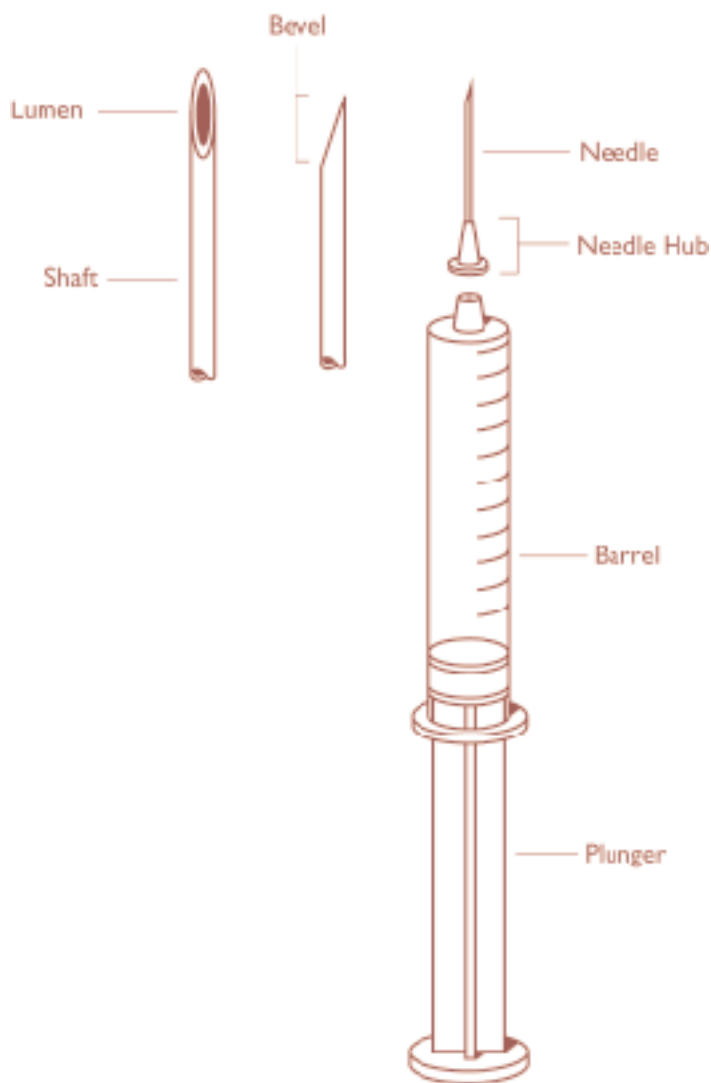
ONE-PIECE SETS VERSUS TWO-PIECE, DETACHABLE SETS. With some types of injection equipment, the needle detaches from the syringe, resulting in two separate pieces. Standard insulin injection equipment is typically one piece, while tuberculin needles and syringes are often detachable. Detachable, two-piece



equipment often has a larger reservoir above the needle in which a lot of blood can collect. If you're using a two-piece set, make absolutely sure the needle is securely fasto the syringe so that it does-

n't detach while you're injecting, causing you to lose your shot. Lastly, you might find that using a butterfly set—often used for drawing blood from hospital patients—is helpful when getting off in the hands or feet, but this type of set can be difficult to obtain. (Ask your local exchange if they have any.)

SYRINGE SIZE. Standard insulin and tuberculin syringes are typically 1 cc in size and are calibrated by .10 cc's along the barrel of the syringe. Most drug injectors find this size ideal and would rarely need use of a larger syringe, although some drug injectors like to use ½ cc syringes. Syringes other than 1 cc in size may be difficult to obtain.



**STANDARD, DETACHABLE, TWO-PIECE
NEEDLE AND SYRINGE**

GUIDELINES FOR SAFER INJECTING

As important as choosing an appropriate needle and syringe is how you use them. Below are some very important guidelines you should follow in order to make the process of injecting as safe as possible.

- **ONE SHOT = ONE NEW NEEDLE AND SYRINGE.**

In the same way that hospitals will use a needle and syringe only once and then dispose of it, this is the gold standard that anyone who injects drugs should also strive for. Needles dull quickly, even after just a few uses. Using dull needles causes unnecessary trauma to the veins and surrounding tissue, results in a larger puncture wound and increased bleeding, and is simply not as comfortable as using a new, sharp needle every time. **Attempting to sharpen a needle (on a matchbook, for instance) is dangerous because it can create a burr on the needle that can cause significant damage to the veins, or weaken the point and cause it to break off in your vein.** Also, new needles and syringes are sterile as opposed to simply clean, which means they're free of all biological matter that, if present, can cause infection. Using a new, sharp, sterile needle and syringe for every injection and then disposing of it is simply the safest possible way to go.

In the same way that hospitals will use a needle and syringe only once and then dispose of it, this is the gold standard that anyone who injects drugs should also strive for.

- **AVOID SHARING NEEDLES, SYRINGES, OR OTHER DRUG INJECTION EQUIPMENT.**

Blood or other matter that remains in a needle and syringe after someone has used it can be passed on to anyone else who uses that same injection equipment. **The same applies to cookers, cottons and spoons.** In this way, life-threatening viruses such as **hepatitis** and **HIV** can be transmitted from one injector to another. **The only to definite way to avoid disease transmission of this sort is to never share needles, syringes, or other injection equipment.**

It is therefore extremely important for every injector to have his or her own set of works, and an ample supply of needles and syringes so that they never have to share or re-use their own—but especially others'—injection equipment.

• **IF YOU ABSOLUTELY MUST SHARE NEEDLES, SYRINGES, OR OTHER DRUG INJECTION EQUIPMENT, BE SURE TO CLEAN IT THOROUGHLY BEFORE RE-USE.**

If you find yourself in a situation where you must use someone else's injection equipment or they must use yours, follow the cleaning instructions on page ___ of this manual to reduce the likelihood of transmitting a blood-borne illness. Sharing injection equipment even after it has been cleaned is definitely a second-best choice because blood and other matter can remain in a needle or syringe even after cleaning. **Cleaning needles and syringes is a complicated process that, even if done according to the best scientific advice currently available, is not a 100% fool-proof method of avoiding harmful bacteria, viruses, and other blood-borne pathogens.**

• **FLUSH YOUR NEEDLE AND SYRINGE WITH WATER SEVERAL TIMES AFTER USE IF YOU PLAN TO RE-USE IT AT A LATER TIME.**

While it is safest to use a new needle and syringe for every injection, if you know that you'll have to re-use your injection equipment at some later time, be sure to flush it several times with cold or room-temperature water so that it doesn't become clogged with blood or other matter. **(see cleaning instructions on following page)**

HOW TO CLEAN A NEEDLE & SYRINGE

As already mentioned, the only sure way for drug injectors to avoid contracting blood-borne infections and diseases like hepatitis and HIV is to never use someone else's works (including needles and syringes, cookers, cottons, or water) or let someone else use yours. Even though injection equipment might look clean to

the naked eye, tiny amounts of blood can remain in the works which can result in infection.

If you find yourself in a situation where you *absolutely must* use someone else's works or they *must* use yours, you can reduce the likelihood of disease transmission by carefully cleaning the equipment before you use it. **Follow these instructions carefully:**

1. Rinse the needle and syringe with cold water several times (hot water will cause blood to clot, making it harder to remove). If you're using a detachable needle and syringe, you might want to take the equipment apart to clean it more thoroughly. Be sure to discard the water you use to rinse the equipment.
2. Flush the needle and syringe with undiluted household bleach. Be sure to fill the syringe all the way up. Keep the bleach in the syringe for a full two minutes while shaking it. Discard the bleach.
3. Thoroughly rinse the needle and syringe with clean, cold water to remove any remaining bleach. Discard the water.

If you do not have bleach, you can substitute hydrogen peroxide, a solution of dishwashing liquid and water, or rubbing alcohol. Use high-proof drinking alcohol, such as vodka or rum, if it's all you've got.

IMPORTANT: In order for bleach to kill hepatitis B that might be in the syringe and/or cooker, you *must* leave the bleach in the syringe and cooker for a full two minutes. It is unclear whether bleach kills hepatitis C, even after two minutes. **This should also kill any HIV that might be in the equipment.** (30 seconds is believed to do this.)

Be sure to clean the cooker with bleach if it's going to be shared. Split whatever cotton you have in two before you use it—it's virtually impossible to clean such a filter. And remember that sharing water is one of the

most efficient ways to pass on or contract a virus or other infection-causing organism.

Rinse your equipment with cold water after you've used it in order to prevent any residual blood from clotting, especially if you plan to re-use it later:

If you purchase needles and syringes on the street, clean them before you use them: sometimes dirty equipment is re-packaged and sold as new. Do **not** clean equipment that is sterile; something that is sterile is as clean as you can get it, and "cleaning" it could actually contaminate it.

COOKERS AND SPOONS



photograph: Kif Design

Cookers and spoons are used to dissolve (cook up) powdered and solid drugs for injection.

- ▶ If using a spoon, try to find one that is rounder and deeper than an average teaspoon or tablespoon—closer to

the shape of a ladle—to decrease your chances of spilling your drugs. You might want to bend the handle to prevent the spoon from rocking or tipping over.

- ▶ If using a bottle top or something similar, be sure you've removed any plastic or paper lining *without scratching the cap's finish*.

Always make sure that your spoon or cooker is as clean as possible; like needles and syringes, it should never be shared with anyone else because doing so can transmit viruses and infections from one person to another.

- ▶ You may want to fashion a handle for your cooker with a bobby pin, paper clip, bag twist tie, or something similar so that you don't burn your fingers when cooking your drugs. Be sure the handle is securely fastened to the cooker so it doesn't fall off, causing you to lose your shot.
- ▶ Always make sure that your spoon or cooker is as clean as possible; like needles and syringes, it should never be shared with anyone else because doing so can transmit viruses and infections from one person to another.
- ▶ Always place your spoon or cooker on a level surface and maneuver it carefully so that you don't spill your shot.

COTTONS (FILTERS)

Most injectors draw their drug solution from a cooker or spoon into a syringe through some type of filter—most often a piece of cotton or other absorbent material. The filter acts to keep out particulate matter and other foreign objects you don't want in

your shot, and enables you to get just about every drop of the drug solution into your syringe so that none of it is wasted.

- ▶ Clean, 100% cotton from a Q-Tip or cotton ball is the safest thing you can use to filter your drug solution. Filter paper or a small piece of tampon are safe alternatives.
- ▶ Rayon and other synthetic fibers often don't absorb liquid as well as cotton, and may prevent you from being able to adequately draw up all of your drug solution.
- ▶ **Cigarette filters are not safe to use** since they contain tiny pieces of glass, and, if from a cigarette that has already been smoked, substances from the smoke that can be harmful if injected.
- ▶ Pocket lint may work if it's all you've got.
- ▶ You might consider skipping the filter altogether if you have nothing safe to use.
- ▶ Use a fresh cotton every time you shoot up, and as with needles, syringes, and cookers, never use someone else's cotton or let them use yours; **infections, bacteria, and viruses can all be transmitted through sharing cottons.**
- ▶ Make sure your fingers are as clean as possible before you tear off and roll up your cotton.
- ▶ Finally, many of us cook up our old cottons to squeeze what we can out of them when we have no more money for drugs. Unfortunately, fungi and bacteria can live and grow in these old cottons (which, because they are moist after use, provide ideal environments for microbes) and cause "cotton fever" when re-used at a later time. Cotton

fever is an infection characterized by chills, sweating, fever, and other flu-like symptoms. It may go away on its own or, if it persists or worsens, require medical attention.

MIXING AND RINSE WATER

You'll need water in which to dissolve your drugs and to flush out your needle and syringe after you've gotten off. This is particularly important for people with HIV, AIDS, or other serious health conditions to use the cleanest water you can find. **Remember, you're putting the stuff straight into your bloodstream!**

- ▶ Using sterile water to dissolve (cook) your drugs is your safest option. You can buy it at any drug store or pharmacy. **DON'T** buy sterile saline (salt water) because your drugs may not dissolve in it.
- ▶ After sterile water, your next best option is using water that you boiled for at least 10 minutes and stored in a sealed jar. (Don't use water that you boiled several days ago and which has been sitting in a pot or kettle.)
- ▶ If sterile or boiled water are not viable options for you, fresh, cold tap water or bottled water are the next best choices.
- ▶ If you're getting off in a location without a sink or other fresh water source, try to find a toilet and **use the water from the tank (never use water from the bowl)**.



- ▶ Using water from a stagnant (non-moving) source like a puddle or old tire can cause serious infections; instead, use water from a fire hydrant, stream, or other moving body of water (even water flowing in a gutter is safer than a puddle) if

Don't contaminate your entire water source by sticking a used syringe in it.

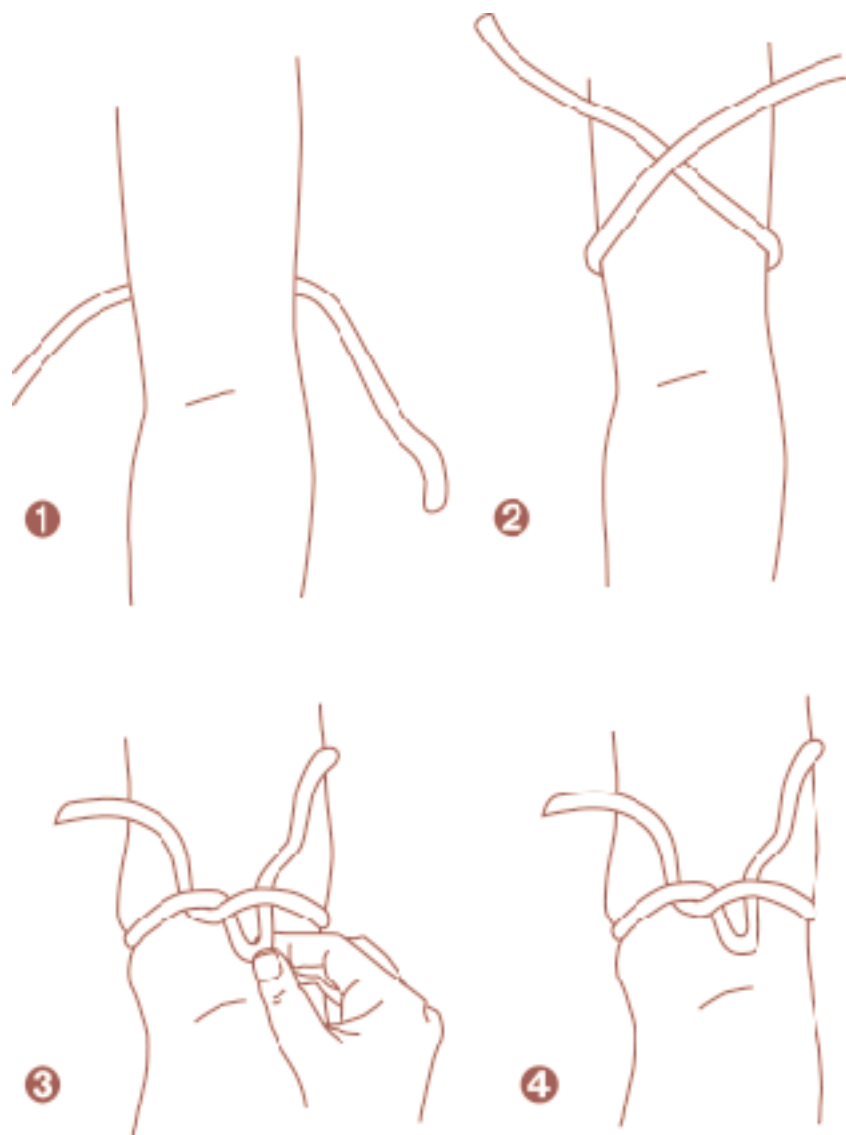
this is all you can find. **THIS WATER CAN STILL GIVE YOU VERY SERIOUS INFECTIONS.**

- ▶ Be sure the glass or whatever you have your water in is clean. Don't contaminate your entire water source by sticking a used syringe in it. Pour some water into another container if you want to rinse your syringe out, and always be sure to discard the water you use to flush your injection equipment so no one else accidentally uses it.
- ▶ **Sharing contaminated water can transmit viruses and bacteria.** Make sure everyone's got their own.
- ▶ Finally, as mentioned above, you might want to get into the habit of carrying a little bottle of water as part of your works in case you need to get off in a place where there's not a sink or other clean water supply.

TOURNIQUETS (TIES)

Intravenous drug injectors usually need something to "tie off" with that will restrict blood flow and cause the veins to bulge out, making them more accessible for injection.

- ▶ Elastic tourniquets (like the kind that are used in hospitals) or stockings are kinder to your skin than leather belts or similar ties. They're also better at securing rolling



TYING OFF

veins like the ones in your forearm. Neckties, lubricated condoms, and socks are other items that, because they're softer and more pliable than leather, make better tourniquets than a belt.

- ▶ Use a slip-knot when tying up so that you can remove the tourniquet quickly if necessary (see illustration). Never leave the tie on for too long to prevent your circulation from getting cut off. **If you lose sensation in your limb or notice it turning blue, remove the tourniquet immediately!** If you've already tied up but need to re-cook your shot or transfer it to another syringe, take the tourniquet off and re-tie it just before you're ready to inject. (See illustration on preceding page.)

LIGHTER OR MATCHES

If you're using tar heroin or crack, you'll need something to heat your drug solution with in order to make it dissolve.

- ▶ A gas stove works fine if you have access to one, although carrying your spoon or cooker to the stove after you've filled it may result in a spilled shot, so prepare everything at the (hopefully reasonably clean) stove.
- ▶ Lighters produce a larger, hotter, easier-to-control flame than matches do, and can be ignited using only one hand. Also, a lighter won't give off a sulfur smell like matches do, which could give you away if you're getting off in a public bathroom.

OTHER HELPFUL MATERIALS

While the needle, syringe, cooker or spoon, cotton, tourniquet, and a lighter or matches are all necessary for preparing and injecting drugs, there are a few other materials it's helpful to have if you can get access to them:

- ▶ Alcohol pads are extremely helpful for cleaning an injection site prior to getting off to prevent bacteria and dirt on the skin from entering your bloodstream.
- ▶ To prevent blood from getting all over your shirtsleeves or clothes—a situation that will require a lot of explaining if you're at work or visiting a friend who doesn't know you use—carry tissues with you and maybe even a Band-Aid to apply after you've gotten off.

PREPARING YOUR SHOT

Preparing your shot as cleanly and as hygienically as possible can help you avoid of illnesses and infections, some of which can be quite serious and require hospitalization (see chapter 3). Every time you inject, you're creating the means by which bacteria and other infection-causing microbes can directly enter the body, and, if you mainline, the bloodstream itself. **The skin is the body's first immune system component, and we open ourselves up to potential infection every time we break it.** That's why it's so important that the equipment and the process we use to shoot up is as clean and safe as possible.

FIRST STEPS

There are a few common sense things you should do before preparing and injecting your drugs.

- ▶ First, if at all possible, **thoroughly wash your hands with soap and water**. Any bacteria or germs you have on your hands can contaminate anything you touch when preparing your drugs. At the least, rinse your hands with water, wipe them with a moistened towelette, or otherwise try to get your hands as clean as possible.
- ▶ Inject your drugs in as clean a place as you can find and always try to use a level surface so you don't tip anything over and lose your shot.
- ▶ If they're not brand new, make sure all of your materials are thoroughly cleaned, and don't unwrap or uncap your needle and syringe—especially if it's sterile—until you're going to use it.
- ▶ **If you're getting off with someone else, make sure each person's equipment is clearly separate from yours so that accidental mix-ups and sharing don't occur: needles, syringes, and water glasses all look the same!**
- ▶ Finally, calm yourself down if you're upset for some reason. Consider whether smoking or sniffing a little bit of your drug will help you relax if you're in withdrawal or otherwise freaking out.

COOKING YOUR SHOT

Powdered drugs must be dissolved into a liquid form before they can be injected—a process known as “cooking.” Different drugs dissolve differently. If you're using something like injectable morphine or hormones that are already in liquid form, cooking is completely unnecessary. Some drugs will dissolve in water without being heated; some people cook their cocaine, for instance,

Inject pills only as a last resort; injecting the particles from a pill can cause all sorts of problems, particularly abscesses.

while many more do not because it can clot when heated, mess up your shot, and clog your needle.

Though brown heroin will dissolve without an acid, heating it along with an acid like powdered vitamin C will help dissolve it more easily. **DON'T USE LEMON JUICE** because it can cause fungal infections that can damage the eyeball. Finally, pills must be crushed up or

pulverized as finely as possible before being dissolved for injection. Many drug manufacturers now formulate their pills so that they're not able to be dissolved in water at all but just sort of clump up when you heat them. If you're going to try to inject a pill, dissolve a small corner of it first so that you don't waste the entire thing. And **inject pills only as a last resort**; injecting the particles from a pill can cause all sorts of problems, particularly abscesses. For this reason, **you should avoid muscle-popping or skin-popping pills altogether.** (see pages 41 and 44)

Ideally, your drug solution will be clear and particle-free. If it's not, you may want to try to re-cook it, although sometimes street drugs contain cuts that will not dissolve no matter what you do. In this case, use your cotton to filter out as much of the cut as you can. Lastly, **don't re-cook a shot with a lot of blood in it as the blood can coagulate and clog your needle.**

After you've cooked up your drugs, draw the solution into your syringe through your cotton. Tap out all the air bubbles and push the liquid to the tip of the needle.

DIVIDING DRUGS

If you've bought drugs with someone else, you need to ensure that everyone gets their fair share in a safe way. There are several ways this can be done:

- ▶ The safest way to divide drugs is to split the powder or tar and have each person cook up their own drugs with their own materials.
- ▶ If this first option is for some reason not acceptable, the drugs can be cooked up first (using sterile equipment!) and then divided (using sterile syringes!) after they're in liquid form.
- ▶ **Backloading (Piggybacking):** A single, sterile syringe can be used to draw up equal amounts of the liquid which can then be carefully squirted into the back of each person's sterile syringe after the plunger has been removed. (See illustration on following page.)
- ▶ **Frontloading:** The drug is carefully squirted into the front of each person's syringe that still has the plunger in it but from which the detachable needle has been removed. (See illustration on following page.)
- ▶ Always be sure any equipment you use to cook up and divide drugs is new (preferably sterile) or, as a second-best option, properly cleaned.

BACKLOADING (PIGGYBACKING)



❶ Remove the plungers from two syringes. Using a third syringe, draw up the hit and empty half into each of the syringes.

❷ Carefully replace both plungers.

FRONTLOADING



Photograph: Jean Paul Grund and Rene Overbeek from "Drug Sharing and HIV Transmission Risks: The Practice of Frontloading in the Dutch Injecting Drug User Population" (*Journal of Psychoactive Drugs*, Vol. 23(1), Jan.-Mar. 1991).

IN THIS CHAPTER

- Taking Control
- Mainlining (Intravenous Injection)
- Hierarchy of Safety for Choosing Intravenous Injection Sites
- Veins vs. Arteries
- Veins vs. Nerves
- Exercises for Improving Vein Visibility
- Some Tips for “Getting Veins Up”
- Muscle-Popping (Intramuscular Injection)
- Skin-Popping (Subcutaneous Injection)

This section of the manual presents information on proper injection technique (intravenous, intramuscular, and subcutaneous injection).

CHAPTER TWO

GETTING OFF: THE BASICS OF SAFER INJECTION

As important as preparing your drugs as cleanly as possible is injecting them as safely and as carefully as possible. This section of the manual presents information on proper injection technique (intravenous, intramuscular, and subcutaneous injection). In addition to mastering proper injection technique, regular intravenous injectors must also be sure to practice good vein care, and all injectors should be aware of the various things they can do—like rotating injection sites—that will help them avoid infection and maintain good health.

TAKING CONTROL

It is extremely important for regular injectors—particularly those who are physically dependent—to be able to prepare and safely inject drugs on their own. Having to rely on someone



Having to rely on someone else to get you off can open the door to all kinds of abuse. Don't let anyone have this much power and control over you.

else to get you off can open the door to all kinds of abuse: don't let anyone have this much power and control over you or your ability to function. Learn how to safely and properly inject yourself!

Learning how to inject properly, like mastering any other complicated activity, takes practice. After a while, you will no doubt be able to hit veins you've never used before on the first try, causing minimal trauma to the injection site and leaving a tiny puncture wound that barely bleeds. You will develop 'a feel' for where

your veins are and how you need to position and insert your needle in order to get a good hit.

Perhaps the safest way to learn how to inject is to have someone who knows what they're doing teach you. An experienced injector can walk you through the process of injecting, or perhaps even demonstrate it, and prevent you from making any dangerous mistakes. If possible, find someone who you trust to mentor you through this process. And talk with other injectors about the various tips and wisdom about injecting they've picked up over the years.

Hopefully, there are things in this manual that will be new and helpful even to those of us who have been injecting for a long time. However, reading about how to inject and actually doing it are two different things. If you are new to injecting, we can only

If the risk of injecting drugs seems too dangerous after you've read this booklet, deciding not to administer drugs via injection is a harm reduction response that we whole-heartedly support.

caution you to read this manual thoroughly before you begin and to go slow and be aware of everything you're doing. **If the risk of injecting drugs seems too dangerous after you've read this booklet, deciding not to administer drugs via injection is a harm reduction response that we whole-heartedly support.**

MAINLINING (INTRAVENOUS INJECTION)

Intravenous injection (mainlining), or injecting a substance directly into the bloodstream through a vein, is one of the fastest ways to deliver a drug into your system. **It is also the riskiest method to use in terms of overdose** (as opposed to sniffing, smoking, or oral administration) because the entire dose enters the body all at once and very quickly. Injecting intravenously usually gives the user a "rush" that many people report to be extremely pleasurable, a sensation that does not occur with intramuscular or subcutaneous injection. **While each injection method carries its own risks, mainlining is arguably the riskiest** since it creates a direct opening between the bloodstream and the outside world. Heroin, cocaine, and amphetamine are three drugs that are commonly administered intravenously.

CHOOSING AN INJECTION SITE

People who inject drugs often have one or two favorite places to inject—sites that feel the most comfortable, are easy to access, and where you almost always get a clean hit on your first try. While it may seem awkward at first, it is important to learn how to inject in other places that may not seem as comfortable or accessible on your first couple of tries. If you keep injecting in your favorite spots over and over without letting the veins repair themselves they will become leaky, making your shot less satisfying and harder to hit; could become seriously infected; and will eventually collapse or scar so badly that they become altogether unusable and interfere with circulation. So, it is very important to rotate the sites you use to inject. Try to use a new site for each new injection and go back to sites you've already used only after they've had time to rest and repair themselves.

In addition to learning to inject in new places, it is also important to learn how to inject with either hand so that if the veins on one side of your body need a rest or are otherwise unusable, you're able to inject into the veins on the other side of your body—even if you need to use your non-dominant hand to do it. The next time you're in withdrawal and really need to get off but can't find a vein in your usual spot, you'll be thankful you taught yourself how to inject into the other arm!

CLEANING THE INJECTION SITE

Any time you inject intravenously, you risk pushing bacteria, fungi, and any other infection-causing microbes that are on your skin directly into your bloodstream. **It is therefore extremely important to thoroughly clean your injection site prior to getting off.** Alcohol pads work well for this purpose, but be sure to wipe in

only one direction and not in a circular motion which will cause the dirt and germs to stay on your skin. Plain old soap and water also work fine, as do rubbing alcohol, hydrogen peroxide, or any other type of cleaning agent or disinfectant. Be sure not to touch the injection site with your fingers after you've cleaned it. **Routinely cleaning the skin prior to injection is one of the most important things you can do to reduce your risk of endocarditis, blood poisoning, and similar infections** (discussed in chapter 3).

TYING UP

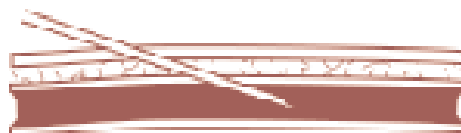
Use gravity to bring blood to the limb you're going to use to inject before applying your tourniquet (tie): swing or hang your arms, make a fist, etc. Tie your tourniquet in such a way that it can be easily removed if necessary (see illustration p. 24). Try to secure 'rolling' veins like those in your forearms before you inject into them. Finally, be sure not to leave the tourniquet on for too long. If you feel your limb becoming numb or notice it turning blue, undo your tourniquet and don't retie it until you're ready to inject.

INSERTING YOUR NEEDLE

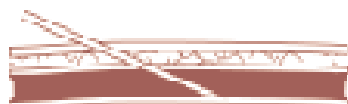
Insert the needle into your vein with the needle bevel opening facing up, at a 15 to 35 degree angle, and always in the direction of the heart. The more perpendicular the needle is to the injection site, the greater chance you have of sticking the needle through the vein instead of into it. (See illustration on following page.)

REGISTERING

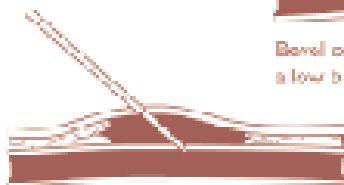
Once you think you're in a vein, pull the plunger back to see if blood comes into the syringe. If so, and the blood is dark red and slow moving, you know that you've hit a vein. You can now untie your tourniquet and proceed to inject your drugs. If no

CORRECT NEEDLE INSERTION

Correct insertion technique; blood flows freely into needle.

INCORRECT NEEDLE INSERTION

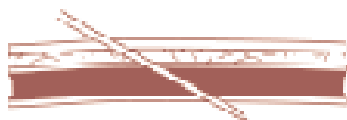
Bevel on vein lower wall does not allow blood to flow.



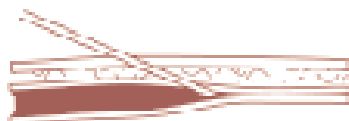
Needle partially inserted causes blood leakage into tissue.



Bevel on vein upper wall does not allow blood to flow.



Needle inserted too far.



Collapsed.

blood or only a very tiny amount of blood comes into the syringe when you pull back, you're not in a vein and will have to untie your tourniquet, pull your needle out, and try again. If you proceed to inject without being properly positioned in a vein, you'll be putting your drugs into the tissue surrounding the vein, under the skin, or some other place. It will probably be painful and become swollen, and the effects of your drugs will come on much more slowly. You also risk abscess formation and other possible problems.

If there's too much blood in your shot to tell if you're properly registering, split the shot into two and dilute each half with water.

Some people like to 'boot' their syringe after they've injected their drugs—that is, pull back the plunger, draw blood into the syringe, and re-inject it. Some injectors like to do this several times, ostensibly to rinse out any drug solution that remains in the syringe. **Because of all the blood involved, you might want to refrain from booting if you know you're going to be cleaning your needle and syringe and allowing someone else to use it.** Be sure to thoroughly flush your needle and syringe with water after booting if you plan to re-use it at a later time, so that blood doesn't clog the needle.

PULLING OUT

After you've successfully injected your drugs, carefully pull the needle out of the injection site at the same angle at which it went in. (To minimize bruising, you should have untied your tourniquet before you injected your shot.) Apply pressure to the injection site to stop any bleeding. If you're getting off in a public place, it is a good idea to have some tissue or Band-Aids around so you

don't get blood all over your clothes. **Don't use alcohol pads on a fresh injection wound: alcohol will cause it to bleed more, not less.**

MISSED SHOTS & AFTERCARE

Don't apply creams, salves or oils you use to treat your track marks or bruising until the injection wound has begun to close (a couple of hours after injecting, otherwise you might cause an infection. Treat missed shots (those that ended up somewhere other than in your vein) immediately with a warm water soak or compress to reduce the likelihood of irritation and abscess formation. Warmth will open the capillaries and bring disease-fighting white blood cells to the affected area.

MAINLINING COCAINE

Cocaine has a numbing effect on the veins and causes them to constrict (shrink), so **if you're shooting coke, you should be extra careful to register properly and make sure you're in a vein before you inject your drugs.** Also, chances are that if you're shooting coke, you'll be injecting many times in a short period of time with perhaps only several minutes elapsing between each injection. This can be traumatic on the veins and the surrounding tissues, and result in a lot of bleeding.

- Try to use a sterile, sharp needle for each injection;
- make sure you keep your injection equipment separate from anyone else's you're getting off with;
- and try to give the area a good rest for a few days.

You may experience some pain and swelling after such intense activity.

MAINLINING CRACK

Because crack comes in a solid form (rock), it is necessary to dissolve it first. The safest way to do this is with powdered citric or ascorbic acid—ask your local needle exchange or health food store where to find it. Avoid lemon juice or vinegar, as these can lead to serious infections.

To dissolve crack: put crack and citric or ascorbic acid (about a pinch to a slab) in the cooker; add plenty of water; mash and mix well.

SHOOTING SPEED

Because speed is often cut with such dangerous chemicals, **it is very important not to miss your shot.** Skin-popping speed is extremely painful, may cause an abscess, and will take a long time for the body to absorb. If you get the shakes after doing a few shots, it may be helpful to have a friend inject you if you are not using alone. Because the quality of speed varies so dramatically, a tester shot is a good idea.

Skin-popping speed is extremely painful, may cause an abscess, and will take a long time for the body to absorb.

HIERARCHY OF SAFETY**for Choosing Intravenous Injection Sites**

The following is a breakdown of possible intravenous injection sites, beginning with the safest options and moving toward the least safe ones.

ARMS

Arms, first upper then lower, are the safest sites for injecting. You should be careful to secure the 'rolling' veins in the forearms before you inject into them. Arms are also good if you're concerned about hiding your injection or track marks (although wearing long sleeves in the summer can be a drag!).

HANDS

Hands are somewhat less safe than arms because the veins are significantly smaller and more delicate and therefore more likely to bruise or become damaged. Circulation is also slower in the hands, causing healing to take longer. If you're getting off in your hands, be sure to use the thinnest needle possible (highest gauge) or, if you can find one, a butterfly needle (see illustration on page 8). Be vigilant about rotating the sites, and keep in mind that it is difficult to conceal injection marks and bruises on the hands.

LEGS

Circulation in the legs may be poor, especially in people who don't use theirs a lot. **Veins in the legs are more likely than those in the arms to develop clots that can obstruct circulation and eventually break off and lodge in the lungs or heart.** Also, damaging the valves in the leg veins is more serious than damaging those in the arms since they play a greater role in getting blood back to the heart.

FEET

As with the hands, the veins in the feet are generally smaller than in other parts of the body, and close to nerves, cartilage, and tendons which you want to avoid hitting when you inject. Because they are farther from the heart than the veins in the hands, arms, and legs, blood circulates more slowly in the foot veins and they

HIERARCHY OF SAFETY

Continued...

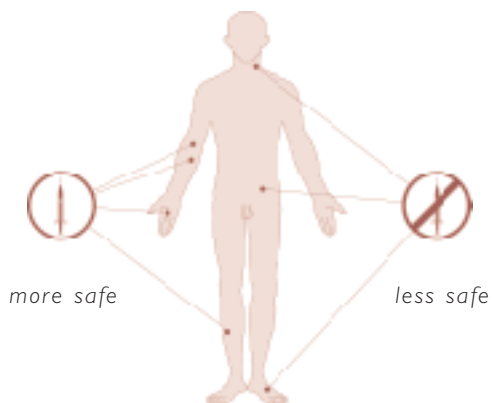
therefore require more time for healing and repair. In addition, foot sweat and dirty socks act prevent wounds from healing and increase the chance of infection from bacteria.

GROIN

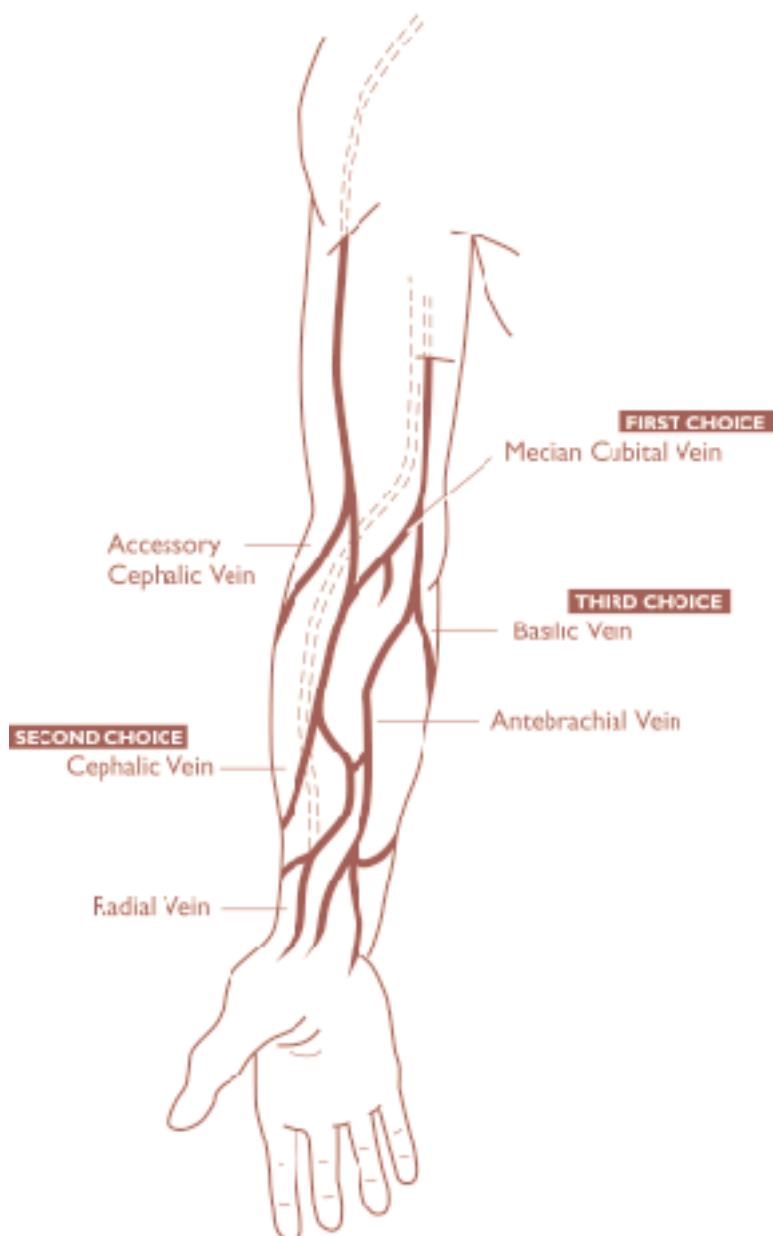
The femoral vein in the groin area is a large and fairly easy vein to access, but its location near the femoral nerve and the femoral artery make it quite a risky place to inject. Among the three, the femoral vein is located closest to the groin, with the artery and then the nerve located as you move outward. If you're going to inject into the femoral vein, first locate your femoral artery—where you do not want to inject—by finding the pulse. Then move a short distance toward the inside of your leg to find the femoral vein. Because it lies fairly deep, you will probably not be able to see it but will have to inject into it “blind.”

NECK

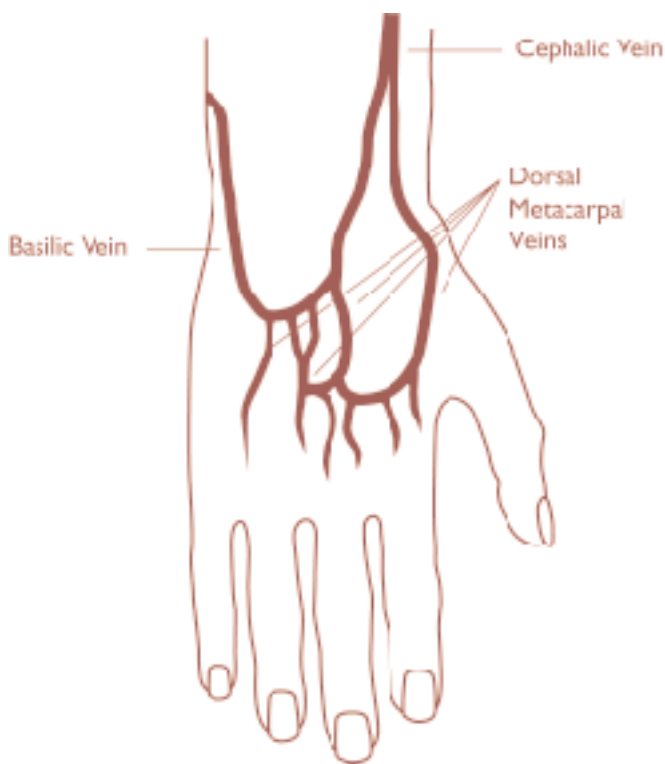
The jugular vein in the neck is the riskiest place to inject because it lies very close to the carotid artery, a major blood vessel that brings blood directly to the brain. Accidentally hitting the carotid artery could be fatal, and damaging the jugular vein in any way can interfere with blood circulation to the brain.



HIERARCHY OF RISK



SAFEST INJECTING LOCATION: THE ARM
(Numbered in order of safety)



**LOCATION OF VEINS IN HAND:
Know Where You're Hitting**

more tips for Choosing an Appropriate Injection Site

- Taking proper care of the veins in your arms and other safer locations will prevent you from having to shoot up in more dangerous ones.
- You should avoid using veins that are tender, hardened, or inflamed until (and if) they heal. Warm compresses and the use of appropriate creams can help speed the healing process.
- The larger and more visible the vein, the easier and safer it usually is to hit. Deep veins are harder to hit, and trying to access them increases your chance of hitting a nerve or artery in the process. On the other hand, it may be difficult to keep a needle properly positioned in a very shallow vein, causing you to accidentally skin-pop your hit.
- Areas that are farthest from the heart, like the hands and feet, heal the slowest and have the poorest circulation. Areas nearest to the heart (like the groin and the neck) have veins that are located near major arteries and nerves which, if accidentally hit, can cause serious, life-threatening damage.
- Injecting near a bone increases the chances that swelling and pain will occur.

veins vs. arteries

You always want to inject into a vein and never into an artery. Veins are blood vessels that carry blood from the extremities of the body back to the heart and lungs where it becomes re-oxy-

generated. Veins have no pulse, and the blood they carry is a deep, dark red because it is low in oxygen. Arteries carry blood rich in oxygen from the lungs and heart to all the other parts of the body. Arteries have a pulse, and the blood in them is bright red and frothy. Arteries are located deeper in the body than veins and so are not visible as many of your veins are.

You'll know you've hit an artery if:

- The plunger of your syringe is forced back by the pressure of the blood.
- When you register, the blood in your syringe is bright red, frothy, and 'gushing.' Blood in veins is dark red, slow-moving, and "lazy."
- You feel an electric "burn" along your limb.

You can avoid hitting an artery by:

- Never injecting where you feel a pulse.
- Injecting only into surface veins and not trying to hit those that lie deeper.

What to do if you hit an artery:

- Untie your tourniquet and pull your needle out immediately.
- Raise the limb above your head to stop the bleeding, if possible.
- Apply firm pressure to the wound for at least 10 minutes.
- If bleeding continues, apply a bandage or cloth wrapped very tightly around the wound and seek medical attention immediately. The loss of blood from hitting an artery can be life-threatening if it's not stopped.

veins vs. nerves

Unlike some veins, nerves are not visible from outside the body, although you will definitely know if you've hit one while injecting because you'll experience extreme pain and no blood will enter the syringe when you pull back to register. Hitting a nerve can be very dangerous and result in paralysis or the loss of a limb. It's a good idea to know where your major nerves are so that you can avoid them when getting off.

exercises for Improving Vein Visibility

If you're the athletic type, engaging in the following activities can help make your veins more visible from outside the body.

- Push-ups, pull-ups, and other exercises that strengthen the arms
- Weight-lifting, particularly bicep exercises
- Squeezing tennis balls
- Wrist curls

some tips for "Getting Veins Up"

If you're having difficulty locating a vein to inject into, you might want try one of the following:

- Put a warm compress on your injection site for five or ten minutes to help bring a vein to the surface. When you're cold, it can be very difficult to access a vein. (If you're getting off in a bathroom or somewhere else

where there's not a lot of heat, don't unroll your sleeve or uncover your injection site until you're ready to inject.)

- Lower your arms below your heart or swing them in a circle.
- Lightly slap the injection site.
- Wrap your limb in Saran Wrap for a few minutes. This traps the heat and causes veins to rise to the surface.
- Remain calm. It can be extremely frustrating to be unable to get a hit, particularly if you're in withdrawal. Chances are getting upset will only increase your difficulty, so take a few deep breaths and start over again in a calmer state of mind.

MUSCLE-POPPING (INTRAMUSCULAR INJECTION)

Some drugs, including injectable steroids and hormones, must be injected into a muscle instead of a vein, but heroin and other opiates can also be administered using this method. The physical and psychoactive effects that result from an intramuscular injection of a drug come on much more slowly than those of an intravenous injection (half an hour to forty-five minutes versus almost immediately), although the overall, cumulative intensity of the effects and the experience are virtually identical. Also, the "rush" that is produced when drugs like heroin are administered intravenously is not experienced by individuals who inject intramuscularly.

Most, if not all, of the infection control and other safety precautions intravenous drug injectors should follow also apply to individuals who inject drugs intramuscularly.

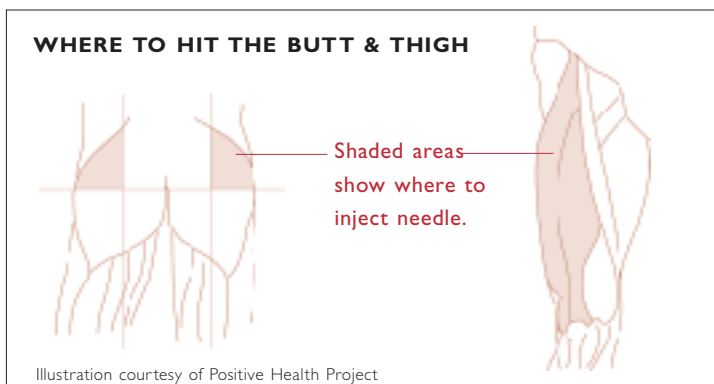
Most if not all of the infection control and other safety precautions intravenous drug injectors should follow also apply to individuals who inject drugs intramuscularly. Muscle-popping produces much less bleeding than intravenous injection, if any at all, but the risk of transmitting viruses and other blood-borne bacteria as a result of needle-sharing is as serious as it is with intravenous injection. In addition, **muscle-poppers are at high risk for abscess formation**, especially if what they inject has any particles in it whatsoever. When muscle-popping, it is extremely important to inject only a solution that is as particle-free as possible.

Many of the substances that require intramuscular injection come pre-prepared in liquid form. To prevent contaminating your entire supply (especially if you're sharing it with someone else), be sure to use only a sterile needle and syringe when drawing the liquid up from the bottle in which it's stored. **Muscling speed or cocaine is very painful and dangerous, and is likely to cause an abscess.**

CHOOSING AN INJECTION SITE

The buttocks, thighs, and upper arms are the three best sites, respectively, for intramuscular injection. The best is in the deltoid, the muscle on your upper, outer arm where your shoulder and your arm meet. If injecting into the butt, mentally divide each cheek into four equal sections and inject into the top right or top left outer section of each cheek (see illustration below). You can also use the front surface of your thighs about six inches above your knee to about six inches below your hip, or the outer surfaces of your upper arms between your shoulder and your elbow. Always be careful to avoid nerves, blood vessels, or bones, and rotate injection sites to avoid bruising, abscess formation, and the

like. It is not uncommon for your muscle to be sore for a few days after an injection.



CLEANING THE INJECTION SITE

Be sure to carefully clean the injection site prior to injecting (see 'Mainlining' section above for more detail).

INSERTING THE NEEDLE

Try to relax the muscle prior to injection. This will result in a less painful injection and may prevent the soreness you usually feel the following day or two. When injecting into a muscle, insert the needle in one quick stab straight into the injection site at a 90° angle to the body. Nearly the entire

You definitely want to draw your plunger back slightly to make sure no blood comes into the syringe.

needle should enter the muscle. You definitely want to draw your plunger back **slightly** to make sure no blood comes into the syringe. If blood does appear, you've hit a blood vessel and need to pull out and try again. Inject your substance slowly.

PULLING OUT

Pull your needle out in the same direction and angle at which you inserted it. Because you injected into a muscle, there should be little if any bleeding. You might want to apply a Band-Aid in any case to prevent infection. Massaging the area lightly for a few minutes will help the drug absorb and reduce the pain.

MUSCLING HORMONES

Hormones are to be injected only into the thigh or buttock muscle. When injecting, be careful of nerves, veins, and bones. The buttock is the most common place people inject. You can switch buttock cheeks to avoid bruises and sores. After you inject into these muscles, you might be sore for a day or two.

Do not inject more than the prescribed amount; it will not speed up your treatment process. You can cause serious liver damage and increase the risk of blood clots. Blood clots can appear in the veins of the legs and can travel to the lungs; this is called Pulmonary Embolism (see p. 64), which can be fatal. People who smoke cigarettes and inject hormones are more likely to develop Pulmonary Embolism. (This section taken from Positive Health Project's "Safety Guidelines for Injecting Hormones.")

SKIN-POPPING (SUBCUTANEOUS INJECTION)

Skin-popping is the injection of drugs between the body's skin and fat layers. Like muscle-popping, the effects of your drug will come on much more slowly than if you'd injected it intravenously, and you will not experience a "rush."

Skin-poppers should follow all of the infection control and other safety precautions that intravenous and intramuscular

injectors should follow. Although like with muscle-popping, skin-popping results in little or no bleeding at the site of the injection, the risk for bacterial or viral infection is real if injection equipment is shared or drugs are not prepared and injected hygienically. Also,

When skin-popping, it is critical to use only a solution that is as particle-free as possible.

skin-poppers are at greatly increased risk for abscesses, especially if injecting crushed pills or another solution with particles in it. When skin-popping, it is critical to use only a solution that is as particle-free as possible.

CHOOSING AN INJECTION SITE

The upper and lower arms and legs are probably the best locations for skin-popping.

CLEANING THE INJECTION SITE

As always, thoroughly clean the injection site with alcohol, soap and water, or other detergent or disinfectant prior to injection.

INSERTING THE NEEDLE

Slide the needle under your skin at a shallow angle, maybe 15° to 45° at the most. Inject no more than ½ cc of liquid (half of the volume of a 1 cc syringe) to form a little bubble under the skin. If your hit is more than ½ cc, inject into two or more sites. The bump from the solution you injected will slowly decrease as the liquid is absorbed into the body, and should disappear completely within a few hours. Skin-popping can be uncomfortable, and the bump you create may hurt a bit. If you skin pop where the skin is loose, pinch the skin between your thumb and forefinger and put the needle into the skin you've pulled up.

PULLING OUT

Pull your needle out in the same direction as it went in. There should not be much bleeding at the injection site when skin-popping, but you might want to apply a Band-Aid to prevent infection.

- Bacterial, Viral & Other Infections
- Injection-Related Injuries
- Taking Care of Your Health

This section of the manual describes some of the medical and health problems that can result from injecting drugs and offers suggestions for how to prevent them.

CHAPTER THREE

POTENTIAL HEALTH COMPLICATIONS OF INJECTION DRUG USE

Many, if not all, of the things that can go wrong during the process of preparing and injecting drugs fall into one of three categories: drug-related, technique-related, and hygiene-related mishaps. Because we're forced to use blackmarket, unregulated drugs, we'll never have control over the quality or purity of the substances we use. But while we may not be able to do much about the actual drugs we use, we can work to improve our injection technique and hygiene which can have far-ranging effects on our health.

There are numerous and potentially very serious health complications associated with injecting illicit drugs, from injection-related injuries like tracking and bruising, to bacterial and fungal infections, from communicable diseases to drug overdoses and other medical emergencies. This section of the manual describes some of the medical and health problems that can result from injecting drugs and offers suggestions for how to prevent them. Overdose prevention and survival are addressed in chapter four.

BACTERIAL, VIRAL, AND OTHER INFECTIONS

DIRTY HITS

A “dirty hit” is a general term for a shot that makes someone sick or causes an abscess as a result of being contaminated with infection-causing microbes or toxic substances. Dirty hits can be caused by any number of things, such as:

- ▶ contaminants in the water you used to dissolve your drugs;
- ▶ bacteria, fungi, or other microbes from old cottons;
- ▶ chemicals in a cigarette filter that was used to filter a shot;
- ▶ adulterants or contaminants in the drugs themselves; or
- ▶ not properly cleaning the skin prior to injection.

Dirt and bacteria get trapped in the cracks of a dried out plunger.



Dirt and bacteria also get trapped in small places at the base of the needle.



Cutaway section of a syringe showing frequent dirty spots.

A dirty hit can result in a fairly quick and intense reaction or might take days or weeks to produce an effect. Symptoms often include sweating, headache, fever, and trembling. While the effects of a dirty hit may pass by themselves, you should seek medical attention if they are particularly strong or persistent.

BLOOD POISONING (Septicemia)

Blood poisoning (septicemia) is a bacterial infection of the bloodstream that can be caused by injecting with contaminated water; re-using old cottons, or failing to clean the skin prior to injection.

Early symptoms include chills, fever, and extreme fatigue. If you experience these symptoms, seek medical attention. Septicemia can be fatal!

ENDOCARDITIS

Endocarditis is an infection of the heart lining that is caused by bacteria, fungi, and other infection-causing microbes that enter the bloodstream during injection and build up around the valves of the heart, weakening them as well as other parts of the heart muscle. Endocarditis can eventually cause a heart murmur, as well as fever, chest pains, fainting spells, shortness of breath, and heart palpitations. It can be treated with antibiotics if detected early, but can be fatal if it goes untreated.

You can help prevent endocarditis, septicemia, and “dirty hits” by always using clean water (and a clean water glass) when preparing your shot; using new, clean cottons for every injection; making sure your spoon or cooker is clean; and thoroughly washing your hands and cleaning your skin prior to injection.

TETANUS

Tetanus is a bacterial infection that occurs when tetanus spores enter a wound and release tetanus bacteria, usually after a scab has already formed. The bacteria then enter the bloodstream and cause an infection, which is characterized by muscle spasms or rigidity, especially in the neck and jaw (tetanus is commonly called “lockjaw”). Tetanus is fatal if not treated.

Most local health departments offer free tetanus boosters, which will protect you from tetanus for five years, so you might consider getting one.

Tetanus spores live in the soil and on rust, which is why a tetanus shot is recommended if you step on an old nail or other rusty object. Most local health departments offer free tetanus boosters, which will protect you from tetanus for five years, so you might consider getting one. If your needle, syringe, or other injection equipment is contaminated with tetanus spores due to dirt or rust, you could infect yourself. **Skin-poppers and muscle-poppers are particularly susceptible to tetanus infection and should always use new, sterile equipment.**

NECROTIZING FASCIITIS (Flesh-Eating Disease)

Necrotizing fasciitis is a bacterial infection commonly known as “flesh-eating disease” that enters the body through broken skin and then affects the surrounding tissue and nearby muscle. It can be transmitted by the exchange of blood during needle sharing, and has recently been traced to **“black tar” heroin** on the West Coast.

Symptoms of necrotizing fasciitis include increasing redness and swelling and extreme pain at the wound or injection site accompanied by a fever: **The flesh around the site of infection begins to decay and looks as if it had been “eaten” away.** Since this infection is fatal, **early treatment with antibiotics is crucial to survival**, although even appropriate therapy does not prevent death in all cases. Wounds must be kept impeccably clean.

Always using new, sterile injection equipment; never sharing injection equipment; thoroughly washing your hands and cleaning the skin prior to injection; and preparing your drugs on a clean surface will all help prevent necrotizing fasciitis infections.

WOUND BOTULISM

Wound botulism is caused by a bacteria that produces a toxin on the skin where a puncture would be made and that eventually **stops your breathing by paralyzing your muscles**. Recent cases have been associated with the subcutaneous injection of “**black**

WARNING
Heroin Users
 If you skin pop or mainline
MEXICAN TAR HEROIN
 There's a new germ
 on the rise called
WOUND BOTULISM
You cannot kill it by
cooking the dope!!!!
 & it can be fatal.

The first signs of Wound Botulism appear in 36-48 hours:

- Slurred speech, blurred / double vision
- Shortness of breath
- Sore throat, difficult to swallow or breathe
- Weak muscles, heavy eyelids
- Losing control of your muscles

If you experience any possible symptoms go to the emergency room. Tell the doctor that you suspect

WOUND BOTULISM

tar” heroin on the West Coast. The source of the botulism could be the drug itself, a cut in the drug, dirty injection equipment, or contamination during the preparation process. **Wound botulism can be prevented in the same ways as necrotizing fasciitis—by following excellent sterile technique when preparing and injecting your drugs.**

Symptoms of wound botulism include droopy eyelids, blurred or double vision, and a dry, sore throat which may progress into difficulty speaking and swallowing, a weakness of the neck, arms, and legs, and difficulty breathing.

If untreated, wound botulism will cause death by paralyzing the muscles used for breathing. Early treatment for wound botulism is essential. If you experience any of the symptoms listed above, seek medical attention immediately. Treatment usually involves an antibiotic regimen and the draining of any abscesses or infected wounds.

HEPATITIS

Hepatitis is an inflammation of the liver that can be caused by certain toxic drugs, alcohol, or street drugs (iatrogenic or chemically-induced hepatitis); or that is the result of infection with a

hepatitis virus (viral hepatitis). While there are numerous types of hepatitis viruses, hepatitis-B and hepatitis-C are the two that most frequently affect injection drug users, with hepatitis-A coming in third.

By preventing hepatitis you can prevent most other infectious diseases transmitted by injection drug use.

General symptoms of hepatitis include fatigue, loss of appetite, nausea, mild fever, and muscle aches, and if you smoke cigarettes, you'll notice

that they taste unpleasant. **More severe symptoms of hepatitis** include dark (tea-colored) urine, light-colored stools, and jaundice (a yellowing of the skin and the whites of the eyes).

HEPATITIS-A (also called "infectious" hepatitis) is excreted in feces (shit) and spread by fecal-oral contact (feces-to-hand-to-mouth contact). Hepatitis-A can be spread from contaminated food, water, hands, and eating utensils, for example, by

a restaurant worker who didn't wash his hands after using the bathroom and who then prepared food. Unlike hepatitis-B and -C, hepatitis-A is not transmitted by blood-to-blood contact that occurs when needles or other drug injection equipment is shared, and is not generally spread through sexual contact unless rimming (oral-anal contact) is involved. Hepatitis-A illness resembles the flu and can last from four to six weeks. It causes an acute (short-term) infection only and never develops into a chronic condition like hepatitis-B or -C. You develop antibodies to hepatitis-A after you've been infected with it, so your chances of ever getting it again are slight. A hepatitis-A vaccine (gamma-globulin) should be administered within 72 hours after exposure to the virus. Gamma globulin is often used as treatment after an exposure, but can also be used as a preventative vaccine. The most complete prevention is a two-shot regimen, with the second injection taken 6 to 12 months after the first.

HEPATITIS-B (also called "serum" hepatitis or "HBV") is spread through blood-to-blood contact of the kind that occurs when drug injection equipment is shared; contact with infected body fluids like semen, blood, urine, saliva, and mucous; sex that involves contact with semen; and from a mother to her infant at birth. Hepatitis-B infection can be acute (short-term and intense) and/or chronic (long-term); chronic HBV can cause serious liver damage, including cirrhosis (scarring), liver cancer, and death from liver failure, and results in premature death in about 15 to 25 percent of individuals affected. **Hepatitis-B is much more infectious than HIV, which means it is spread much easier.** It is one of

the most important reasons drug injectors should never share injection equipment of any kind.

A vaccine that will protect you against hepatitis-B if you're exposed to it is available, and all drug injectors should think about getting it.

A vaccine that will protect you against hepatitis-B if you're exposed to it is available, and all drug injectors should think about getting it. The vaccine involves a series of three intramuscular injections, with the second shot being administered 30 days after the first, and the third shot being administered 4 to 6 months after the second. The vaccine is safe and effective. If

you've had hepatitis-B in the past, you've developed antibodies to it and will not catch hepatitis-B again in the future and do not need the vaccine. You can get your blood tested to see if you've ever been exposed to the hepatitis-B virus, and get the vaccine at your local Department of Public Health or your doctor.

HEPATITIS-C (formerly known as "non-A, non-B" hepatitis and also referred to as "HCV") **is spread mainly through blood-to-blood contact and is very infectious**, which means you can acquire it quite easily if exposed to it. There is a blood test (ELISA) available that detects whether or not you have antibodies to the hepatitis-C virus in your blood, which, if positive, should be confirmed with a second test called the RIBA; the only way to test whether or not you have the actual virus in your blood is by getting a polymerase chain reaction (PCR) RNA test, but these tests are not terribly sensitive and interpretation of the results may differ depending on who's reading them. **There is as yet no vaccine for**

hepatitis-C, and antibodies are not protective—that is, they don't make you immune to re-infection as with HBV. Scientists estimate the arrival of a vaccine in 1 to 2 years. Currently, there is only prevention with use of sterile injection equipment, by not sharing injection equipment, and through safer sex.

Hepatitis-C can either be chronic but asymptomatic (without symptoms, which means you barely even notice you have it), or chronic-active, which means disease will develop over a long period of time—several years or perhaps even decades. Unlike acute HBV infection, HCV is never completely cleared from the body. People with active hepatitis-C may have elevated liver function tests (LFTs), fatigue, and jaundice, and active disease can result in cirrhosis, liver cancer, and ultimately liver failure, all of which can be fatal. **Hepatitis-C is an extremely serious health risk for injection drug users**, many of whom—it is now being discovered—have been exposed to the virus at some point in their lives.

Interferon alfa-2B is the only therapy currently approved for the treatment of chronic hepatitis-B and -C in the United States. However, many people use a variety of alternative therapies for hepatitis treatment including western and Chinese herbal therapies or acupuncture. *The Hepatitis C Handbook* by Matthew Dolan is a very comprehensive book covering a variety of hepatitis therapies from Western to Chinese medicine and other alternative therapies.

Currently, there is only prevention with use of sterile injection equipment, by not sharing injection equipment, and through safer sex.

It is available through Catalyst Press, P.O. Box 13036, London, NW1 3 WG, or you can call (802) 655-3415 to order it.

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

Human Immunodeficiency Virus (HIV) is the virus believed to cause AIDS (Acquired Immune Deficiency Syndrome), an immune system disorder that causes the body to lose its ability to ward off infection and fight disease. HIV can be spread through the exchange of infected semen or vaginal fluids during unprotected sex; the exchange of blood via the sharing of drug injection equipment or accidental needlesticks; and from mother to infant during pregnancy, childbirth, or breastfeeding.

Blood-to-blood contact is one of the most efficient means of transmitting HIV from one individual to another, and the sharing or re-use of drug injection equipment is extremely risky in terms of HIV transmission. It is important to point out that injection drug use itself does not cause HIV; rather, HIV is transmitted (like hepatitis and other viruses) when infected blood from one individual is left in a needle, syringe, cooker, cotton, or water and injected into the bloodstream or body of a second individual who uses those same works. **HIV from injection drug use is therefore 100% preventable as long as you always use your own sterile works and never share them with anyone.**

Anonymous or confidential HIV-antibody tests are available from virtually all municipal, county, and/or state health departments, local health and family planning clinics, AIDS service organizations, needle exchange programs, and many other types of providers.

General symptoms of HIV infection may include a low-grade fever and fatigue. The longer a person is HIV-infected,

the more likely they are to develop one of the many bacterial, fungal, or viral infections, cancers, neurological disorders, or other conditions that afflict people with HIV and AIDS. Traditional Western and alternative therapies are available for fighting replication of the HIV virus in the body and for preventing and treating some of the numerous opportunistic infections that people with HIV and AIDS commonly get. There is no cure for HIV or AIDS at this time.

INJECTION-RELATED INJURIES

TRACKING AND BRUISING

Track marks are the scars that appear along the veins of someone who injects frequently and repeatedly uses the same injection sites.



How a bruise is formed

Bruising occurs when blood leaks out from the vein under the skin in the process of injecting. **Damage to the veins, including tracking and bruising, can be minimized or prevented altogether by practicing the following safer injection guidelines.** (These are especially important for those individuals who are worried about family, friends, an employer, or someone else finding out about their drug use. Track marks are one of the most visible signs that you use.)

- **Use a sharp, sterile needle for every injection.** Using dull needles will cause trauma to the veins and surrounding tissue, cause a much larger puncture wound, and increase bleeding at the site.

Sharpening a used needle can cause it to develop a burr, which will tear the vein and surrounding tissue and result in unnecessary trauma to the injection site. If you keep resharpener your point, it becomes less flexible and can break off into your vein. If this happens, seek *medical attention immediately!*

- **Use the highest gauge (thinnest) needle you can find** to make the smallest puncture wound possible.
- **Alternate and rotate your injection sites.** Always try to inject at least one inch from your previous injection site. Give your veins a chance to rest in between injections. Stay away from veins that are red or tender until they heal.
- **Always inject in the direction of the body's blood flow (toward the heart).**
- **Use a soft, flexible, easy-to-open tourniquet and remove it after you've registered but before you inject** to help prevent bruising.
- **Use emollient-rich or antibiotic creams on injection sites once they've closed or scabbed over.** Aloe vera gel and vitamin E oil are two commonly-available preparations that can help reduce the appearance of track marks.

VEIN COLLAPSE

Vein collapse occurs when veins close up due to repeated injections into the same site, repeated local infections, or trauma to the veins and surrounding tissues. **Using barbed or dull needles can precipitate vein collapse.** You know you have a collapsed vein when you can't draw blood from it or when the vein "disappears." Thrombosis is the formation of an obstruction of a blood vessel by

a blood clot. **Don't use veins that do not bend when pushed as they may have blood clots that can break off and lodge in the lungs or other parts of the body and cause serious damage.**

You can avoid vein collapse by always rotating and alternating your injection sites and by injecting in the direction of the body's blood flow (toward the heart). **Using the same injection site over and over without letting the vein heal is one of the surest ways to cause vein collapse.** Also, insert your needle at a 15 to 45 degree angle with the bevel of the needle facing upwards. **Taking oral vitamin C may help your veins repair themselves and reduce bleeding and bruising. NEVER inject vitamin C, only swallow it.**

ABSCESSSES

Abscesses begin with redness, swelling, and tenderness at an injection site and develop into an infection with a hard, pus-filled core. Abscesses result from missed hits (injecting into the tissue surrounding the vein), injecting a solution with a lot of particles in it, failing to clean the injection site prior to injecting, using dirty injection equipment, or skin-popping drugs like coke or speed that cause damage to muscle tissue and skin.

If you notice a hard, warm lump developing at an injection site, apply warm compresses at least three times a day to either make the abscess that is forming go away or come to a head (soften and fill with pus). If it comes to a head, you can get the abscess opened and drained at a hospital or clinic. **If you experience fever, chills, extreme fatigue, or pain associated with an abscess, seek medical attention immediately because you could have a blood infection.** Pain in the groin or armpits also means



Injection misses veins and leaves contaminants in tissue.



White blood cells attack contaminants but can't eliminate quickly.



Dead white blood cells crystallize around infection, creating abscess.



Repeated injections maintain area of infectious foci.



Since the body cannot breakdown infection as quickly as it is introduced the abscess keeps growing.

HOW AN ABSCESS IS FORMED

you most likely have an infection for which you should seek medical treatment.

If you're unable or unwilling to seek medical care for an abscess, take the following steps:

1. Clean the area with soap and water, and be sure to keep it as clean as possible at all times.
2. If the abscess is draining, let it continue to do so.
3. Keep the area covered with sterile gauze you can buy in a pharmacy, and change the dressing twice a day until the pus stops draining and at least once a day until the abscess is completely healed. Dressings that directly touch the wound should be dampened with sterile saline (which you can also purchase at a drug store) and then covered with dry gauze and tape. Properly dressing an abscess will help keep it free from further infection and speed healing.
4. When removing the dressing, dampen the gauze that's touching the wound so you don't pull off newly formed tissue.
5. Warm compresses and salt soaks will encourage the abscess to drain and promote healing. **Do not soak or use a compress once the wound is open or draining.** After the abscess has drained and scabbed over, antibiotic creams and preparations like aloe vera gel can be helpful.
6. Let the area heal completely. If the abscess refuses to drain completely or pain and swelling persist, seek medical attention.

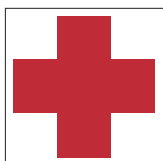
Only use the emergency room as a last resource for getting your abscess drained. Chances are the trauma or surgery doctor you

see will not be too sympathetic to your plight, under-medicate you for pain, make a large incision, and provide no follow-up or after-care. Instead, try to go to a community clinic where the care might be more humane (although there are certainly no guarantees when it comes to people's views about injection drug use!). Try to find a wound clinic where you can get your dressing changed on a regular basis and make sure the abscess is healing properly. This will help insure that minimal scarring occurs.

EMBOLI

An embolism is something such as air, fat, impurities, dirt, or other particles that can obstruct a blood vessel which results in the blockage of blood flow. Particles from injected pills that were not completely pulverized and clumps of bacteria are two examples of things that can cause emboli. Emboli can be extremely serious, particularly if they travel through the blood vessels to the heart or lungs or lodge in the small capillaries of the fingers, eyes, or toes where severe circulation damage can occur. **Emboli can be avoided by filtering out any particles in your shot and refraining from injecting pills, no matter how pulverized they appear to be.**

TAKING CARE OF YOUR HEALTH



Because they're involved in the daily struggle to procure their drugs, many users often aren't able to fully care for their health, and the added stress to the body of injecting daily results in chronic poor health. Each new injection of drugs potentially showers your bloodstream with all sorts of infectious agents and contaminants which can weaken your immune system. Not getting proper

nutrition or adequate fluids, enough sleep, and regular medical care can compound this situation. To the extent possible, follow basic, common sense steps

Proper nutrition, adequate fluids, enough sleep, and regular medical care are essential to maintaining anyone's health.

to take care of your health. In the near future, the Harm Reduction Coalition will be creating a small booklet that reviews basic health maintenance and first aid suggestions for drug users.

IN THIS CHAPTER

- What Is an Overdose?
- How Do O.D.s Happen?
- How Can You Tell if Someone Has Overdosed?
- What to Do if Someone Overdoses
- What You Should Not Do if Someone Overdoses
- Narcan
- Accidental Needlestick Injuries

Whether or not an individual survives an overdose depends mostly on what those present do or don't do to help.

CHAPTER FOUR

OVERDOSE AND OTHER MEDICAL EMERGENCIES

One of the most serious health consequences associated with using illicit drugs is the risk of overdose. While overdose is indeed serious, it doesn't have to be fatal. Anyone who uses illicit drugs should take the time to talk with friends and develop an overdose plan in the event that something happens. Whether or not an individual survives an overdose depends mostly on what those present do or don't do to help. All users should learn how to perform cardio-pulmonary resuscitation (CPR), for example, and be aware of the necessary steps they should take if someone they're with overdoses. Most overdoses occur in the presence of another person, so often we have the opportunity to help our friends and loved ones survive if we

know what to do. Read the following section carefully and do what you need to do to **feel confident that you could help someone who has overdosed survive. We owe it to ourselves and to each other.**

WHAT IS AN OVERDOSE?

Drugs that people take to get high work by affecting the brain. Because the brain controls other parts and functions of the body (like the lungs which enable oxygen to get to the blood, the kidneys and liver which remove toxins from the body, and the heart which pumps blood to all parts of the body), using drugs can affect one or more of these crucial activities in addition to making you high. For example, cocaine speeds up your heart rate and heroin slows down your breathing. A person's body can usually adjust to these changes, but if you take too much of a particular drug, such changes may overwhelm the body's ability to adjust to them and very dangerous side effects can occur.

Some side effects that occur from taking a lot of drugs are often serious but not immediately life-threatening, such as the damage that can result to the liver and kidneys from making them work hard to remove drugs from the body over a period of years. But **if too much of a drug gets to the brain or other organs too fast, dangerous side effects such as unconsciousness, stopped breathing, heart failure, or seizures may occur — any of which can be deadly.** This is what is known as a drug overdose (o.d.).

Overdoses are very serious but do not have to be fatal. Often, the difference between life and death depends on who is around and what actions they take to care for a person who has overdosed.

This chapter will help you or someone you love avoid overdosing in the first place and give you some basic information about what to do in case you're with someone who overdoses. There is no reason you should die just because you get high!

HOW DO O.D.'s HAPPEN?

Anyone who uses drugs can overdose, from the first-time user to the person with many years' experience. There are numerous reasons a person can overdose:

- ▶ One of the effects of drugs being illegal is that there is no quality control; in other words, you don't know what you're getting. Drugs you buy on the street — especially drugs like heroin that, unlike pills, are not made by drug companies — can be a different strength from day to day. Sometimes a drug may be cut a lot, and sometimes it's hardly cut at all and therefore much stronger. **If you're using drugs of unknown strength** (and you are every time you purchase from a different dealer or new batch), **do a tester shot first to see how strong they are**. You can always do more later. Many people overdose when they do a full hit of a strong drug.

Warn people you're using with, or have gotten drugs for, if you come across something that's unusually potent.

- ▶ Sometimes dope, speed, and coke are cut with other, cheaper drugs which can be dangerous and unpredictable and increase your chances of overdosing. If possible, **try to purchase your drugs from a regular source** that, to the extent possible given the situation, you can trust. Establish

a relationship with a dealer who you feel you can talk to about his or her product.

- ▶ Some people overdose because they simply do too many drugs which build up in their system. Let your drugs work first before you do more, and perhaps plan to use only a certain amount (maybe even purchasing just the amount you're going to use at a given time). Take your time to prepare your drugs right, even if you're in withdrawal or in a hurry. Minimize uncertainty by thinking through each step of your drug-taking. Deep breathing may help focus you, and sniffing or smoking a little bit of the drug may help calm you before preparing your injection.
- ▶ **Take control of your own drug preparation and intake.** Different users have different tolerances to drugs, so a dose that's fine for one person could be lethal to someone else. Make sure you know what you're putting into your own body.
- ▶ A person can overdose if they haven't used for a while, even for a short time. After detoxing or spending some time in a rehabilitation center, your body is no longer used to the same amount of drugs. One of the consequences of jailtime is that your tolerance decreases and you're a lot more sensitive to dope, so be careful if you're getting high after release. Take a smaller dose if you're using after a break until you figure out how much you need. Someone who's using a drug for the first time should also be extremely careful, since they will have no tolerance to it at all. You might try using the drug in a way that makes it come on more slowly (sniffing heroin

or cocaine rather than injecting it, for example). And make sure you use with someone who knows what they're doing and has experience with the drug.

- ▶ **Mixing drugs like heroin, pills, and alcohol can be very dangerous. One of the most common reasons for death from an o.d. is mixing drugs,** since drugs that are taken together can be much stronger than if they're taken alone. You may get a stronger high when you mix, but you're also putting yourself at much greater risk of having an overdose. Mixing drugs also increases the risk of passing out and vomiting, and vomit can block your airways and cause you to suffocate.

Alcohol is one of the most common & most dangerous drugs mixed with other drugs.

Finally, some pharmaceuticals may interact with "street" drugs in dangerous ways. If you feel comfortable doing so, you might want to talk to your doctor about this issue.

- ▶ **Changes in your health may cause you to be at higher risk for an o.d.** If you have lost a lot of weight, a smaller amount of a drug will get you high; and if your liver or kidneys aren't working well, you can overdose easier. **Your body is less able to protect itself after you've been sick, so help it out by using less and giving it a chance to recover.** Eat and sleep well, always drink a lot of fluids, and get that annual physical.
- ▶ Using drugs alone increases the chance that if you overdose, it will be fatal because you can't take care of yourself or call for help. **If you find yourself alone in an overdose situation and have called 911, remember to**

unlock your door so that the paramedics can get inside. If possible, use with people who care about you and who you trust, and sit down and talk with them about an overdose plan. Try to put together a support system for yourself of people who know you use and will be there for you if something happens.

HOW CAN YOU TELL IF A PERSON HAS OVERDOSED?

DEPRESSANT DRUGS like opiates (e.g., heroin and Dilaudid) and sedatives (e.g., Valium and alcohol) slow down the body's functions. **A person who overdoses on a depressant will experience respiratory arrest—that is, their breathing will become life-threateningly slow or stop altogether, leading to heart failure.**

STIMULANT DRUGS, such as cocaine and speed, can cause a person who has overdosed to have a **heart attack** or experience **cardiac arrest**, collapse from exhaustion, have a **seizure**, or become so disoriented that they accidentally hurt themselves.

One of the clearest signs that someone is overdosing is that their face or lips will turn blue. They may also look very pale; be very limp; be able to breathe and look at you, but not be able to talk; be breathing, but very slowly and shallowly; stop breathing altogether; have a slow pulse (heartbeat) or no pulse at all; foam at the mouth; vomit; be shaking or have a seizure; complain of chest pain, pressure, tightness, or shortness of breath; or suddenly collapse and become unconscious. **You have about 4 minutes from the time your lips turn blue to coma.**

A person who is overdosing isn't usually aware of what is happening because of the effects of the drug they're on. They are helpless and need someone to act quickly. **If a person stops breathing, it can take only a few minutes for them to die. Just waiting for them to "get over it" is the worst thing you can do if someone is overdosing. Immediate action must be taken to help them survive.**

WHAT TO DO IF SOMEONE OVERDOSES

Anyone who uses drugs should develop an overdose plan in the event that something happens. If someone is overdosing, follow these steps:

1. **Check to see if the person is able to open their eyes or speak to you.** Shake them and call their name.
2. **Check the person's pulse and breathing.** Does a mirror held under their mouth fog up? Can you feel their breath on your hand? Is their chest moving up and down? Can you detect a heartbeat when you put your ear to their chest?
3. **If the person doesn't respond or seems to have stopped breathing, try to bring them around by pinching their earlobes or rubbing their breastbone with your knuckles.** Try to get them up and walking around, even if you have to hold them up. Talk to them. **It is important to keep someone who has overdosed as alert as possible.**
4. **If the person has stopped breathing, they need attention immediately or they will die within minutes** if they don't get air. **Keep them alive by giving them mouth-to-mouth resuscitation.** Helping with breathing is relatively harm-

less—it's the pumping the chest that can be harmful and that should only be done by someone who knows how. **Call 911**



The Recovery Position

and tell them that the person has stopped breathing. Put them in the "recovery position" on the floor.

5. **If you can't get them in the "recovery position," tilt the body forward instead of leaning back so that their airway will be clear and fluid will come out of their mouth.** REMEMBER, vomit carries virtually no communicable diseases as it's acidic and kills bacteria. So, clean out their mouth with your hand (don't use water because they may choke), and **GET TO IT.** It may be gross, but it could save someone's life.
6. **If the person is unconscious,** (that is, you can't wake them up no matter what you do), **call 911 immediately!** If they are going to have a seizure or stop breathing, you want them to be in an ambulance or at a hospital when it happens. **Don't wait for them to just "come out of it."**
7. **If the person is conscious but experiencing nausea, chest tightness, shortness of breath, or other such symptoms, convince them to call 911 or call 911 for them.**
8. When you call 911, you don't have to tell the operator that the person has overdosed. This will prevent a lot of police from arriving with the ambulance. **While you're waiting for the ambulance, check to see if the person's airways are clear, but do not stick anything into their**

mouth unless you can see something blocking their throat, like vomit or food.

9. **Never leave someone alone who has overdosed.** If you need to remove drugs or smoking or injection equipment before the ambulance arrives, don't let the person out of your sight. If you absolutely must leave the person alone for some reason, put them in the recovery position, call 911 before you leave or from another nearby location, and make sure the ambulance technicians will be able to gain access to where the person is.
10. **When the ambulance arrives, tell the emergency medical technicians (EMTs) that the person sometimes uses 'x' drug.** They can best help the person if they know what has happened. The EMTs will need to know how to treat the person, but you don't have to tell them you used drugs with your friend. The ambulance service will generally not call the police unless they are physically threatened. Be respectful of the EMTs and they will usually just do their job.

WHAT YOU SHOULD NOT DO IF SOMEONE OVERDOSES

There are also some things you should NOT do if someone you're with has overdosed:

- **Do NOT inject a person who has overdosed with salt water.** This is an old junky myth and will do nothing to help revive the person.
- **Do NOT inject a person who has overdosed on heroin with cocaine or speed, or vice versa.** It will just waste valuable time and probably make them worse.
- **Do NOT give CPR (this is the heart compression part—the pumping the chest) unless you know how.** You may do more harm than good. *Mouth to mouth resuscitation is okay.*

If you want to learn CPR, call your local Red Cross or see if your needle exchange offers classes. Learning CPR is one of the most important things you can do to help someone survive an overdose. Every user should learn CPR!

- **Do NOT put the person in a cold water bath because it may cause them to go into shock or to drown.** You can put them in a cool shower to wake them up, but you must stay there with them. Do NOT put ice on their genitals (down their pants).
- **Again, do NOT leave someone alone who has overdosed, even after you've called an ambulance.** Your friend will need you to see them through this very scary experience.

NARCAN

Narcan (naloxone) is an opioid antagonist that, when injected into a person who is overdosing on heroin, methadone, or other synthetic opiates, immediately counters the effects of these drugs and brings the person 'to.' Narcan can be given intravenously or by intramuscular injection. Ambulances and other emergency response vehicles often carry Narcan to use in the event of an opiate overdose, and some detox programs still use Narcan to initiate withdrawal when a patient is admitted. Narcan is restricted for use by medical and health professionals only, and will only help someone who has overdosed on heroin or another opiate.

Giving someone who has overdosed an injection of Narcan can get pretty hectic because the person's body is thrown into severe withdrawal almost immediately, causing them extreme dislocation and discomfort. The person who is overdosing may become quite upset, begin to thrash around and scream, become physically aggressive, and even refuse to go to the hospital. Encourage medical personnel to administer Narcan slowly to make the transition to withdrawal less painful and more gradual. Because Narcan is short-acting and wears off relatively quickly, the person can revert back to a state of euphoria and, if they still have enough drugs in their system, begin to overdose again. It is therefore important to have an adequate supply of the drug on hand and experience in properly administering it.

Some clinicians prefer not to administer Narcan in the event of an overdose because of its disturbing and harsh effects. The major problem for people overdosing on opiates is that they stop breathing; as long as emergency measures are taken to keep an overdose victim breathing, most people will wake up and "come

to" within a few minutes without the profound shock caused by Narcan administration.

ACCIDENTAL NEEDLESTICK INJURIES

The risk of infection from hepatitis and tetanus is far greater than the risk of HIV from an accidental needlestick.

There is a **remote** chance of being infected with HIV if you are pricked or scratched with a used needle. The risk of infection from hepatitis and tetanus are far greater if the needle was contaminated with either of these pathogens, both of which are much more infectious than HIV. If you are accidentally stuck with a needle that was used by some-

one else, try not to panic and take the following precautions:

1. Encourage the wound to bleed by squeezing the puncture site. This will help keep any pathogens from entering your body.
2. Wash the wound with soap and water as soon as possible.
3. Apply an antiseptic and a sterile bandage.
4. Seek medical attention from an emergency room or clinic. If the person whose needle you were stuck with is HIV+, you may be encouraged to take a short regimen of anti-viral drugs to prevent infection with the virus. You may also be offered a tetanus shot. If not, you may want to request one if your vaccination is not current.
5. If you're around needles and syringes regularly, you may want to get a tetanus booster every five years and be vaccinated against hepatitis-B.

There is no reason that accidental needlesticks should happen.

- ▶ If at all possible, never handle injection equipment that was used by someone else, especially if it is uncapped.
- ▶ NEVER try to re-cap a needle that was used by someone else.
- ▶ ALWAYS re-cap your own needle immediately after use.
- ▶ Do NOT break the needle off with your fingers.
- ▶ Always store your used needles and syringes safely (see chapter 5).



IN THIS CHAPTER

- Safe Storage & Handling of Injection Equipment
- Proper Disposal of Used Equipment
- Where to Get New Materials

For your safety and the safety of others, it is extremely important to store and dispose of used injection equipment properly.

CHAPTER FIVE

TOOLS OF THE TRADE: WHERE TO GET NEW EQUIPMENT

AND WHAT TO DO WITH THE OLD

For your safety and the safety of others, it is extremely important to store and dispose of used injection equipment properly. There is no excuse for being lazy or sloppy about how you get rid of your potentially contaminated needles and syringes. Throwing your equipment in an empty lot, park, public bathroom, playground, or anywhere else where someone might get stuck endangers the health of others, gives all of us a bad name, and fuels discrimination against drug users. Be considerate of the people who take away your garbage, and think about where those needles and syringes that you flush down your toilet end up! **Take the time to dispose of your equipment right.**

SAFE STORAGE AND HANDLING OF INJECTION EQUIPMENT

Particularly if you have small children, always store your injection equipment—dirty or clean—in a location where others are not likely to come across it. Keep your new equipment in its package until you're ready to use it so that it remains sterile, and store your needles and syringes in a cool, dry place.

Always carefully store your used needles and syringes in a coffee can, spaghetti sauce jar, sharps container, polyurethane soda bottle, or similar container to prevent accidental needlesticks. If you live with another injector, be sure to keep your equipment separate to prevent accidental sharing. You might also want to mark your syringes so you can tell them apart.

PROPER DISPOSAL OF USED EQUIPMENT



It's best to take your used equipment to a needle exchange program or some other place where it will be properly disposed of. If you don't have access to such a program, throw it in the garbage but only after you've securely packaged it in a puncture-proof container. Don't flush your used equipment down the toilet because it may end up on a beach or in the ocean somewhere or stick the plumber who has to unclog the pipes.

WHERE TO GET NEW MATERIALS

Fortunately, many communities now have needle exchange programs where you can get new, sterile equipment for free and dispose of your used works. Definitely check out your local needle exchange if

there is one, and get involved! It's a great way to help out yourself and other users.

You may live in a place where you can buy injection equipment over the counter. Try to find a cooperative pharmacist and let him or her know you appreciate their assistance. Let other users know what drug stores will sell equipment to them.

If there are no other options, you can usually find injection equipment on the black market. **If you purchase needles and syringes on the street, however, clean them before you use them; sometimes dirty equipment is re-packaged and sold as new.**



Harm Reduction Coalition
22 West 27th Street, 9th Floor
NY, NY 10001
Phone: (212) 213-6376
Fax: (212) 213-6582
Email: hrc@harmreduction.org



HARM REDUCTION COALITION

22 WEST 27TH ST, 9TH FLOOR

NEW YORK NY 10001

PHONE: 212.213.6376 FAX: 212.213.6582

EMAIL: HRC@HARMREDUCTION.ORG