

OPIOIDS

a guide for people
who inject opioids



New Zealand
Needle Exchange
Programme



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Introduction

The New Zealand Needle Exchange Programme (NZNEP) promotes a harm reduction approach to drug use which means that although we do not encourage or promote drug use we want you to be as safe as possible if you choose to inject drugs.

The purpose of this booklet is to provide you with information on the various opioids injected in New Zealand as well as tips on safer injecting. We recommend you also read our booklets '*Veintenance*' and '*Injecting and your health*' as they have more comprehensive information about injecting and vein care.

This booklet has been written by peers for peers.

What are OPIOIDS?

We have used the term 'opioids' in this booklet to describe the **opiates** - those that come from the opium poppy such as morphine, codeine, and heroin; the **synthetic opioids** – such as fentanyl and methadone; and the **semi-synthetic opioids** – such as oxycodone.

Opioids can be used orally, sublingually (dissolved in your mouth) or anally (plugging) and by injecting, sniffing, snorting or smoking. Some also come within patches that are prescribed to attach to a person's skin.

Opioids can be divided into groups based on how quickly they come on, and how long the effects last. The shorter acting opioids such as morphine sulphate, fentanyl, oxycodone and codeine, come on quickly but their effects wear off quickly as well. Due to this some people need to take more of the drug, and to top up to get the desired effects. The longer acting opioids such as methadone, buprenorphine and dihydrocodeine (DHC) take longer to come on but their effects can last for a longer time.

How do OPIOIDS WORK?

When injected, opioids very quickly bind to specific receptors in your brain, spinal cord, stomach and intestines. Dopamine levels in the reward areas of your brain are then driven up so that you get high and feel relaxed. They will also effect other systems in your body such as slowing your breathing and heart rate and altering your mood.

When you have a taste these are the likely immediate effects:

- A warm flushing of your skin
- A heavy feeling in your arms and legs
- Dry mouth
- Feeling nauseous and/or vomiting (more common if you are not used to taking opioids or have taken a large dose)
- Feeling itchy
- Feeling sedated - 'nodding' – going in and out of consciousness or difficulty staying awake



What are the risks of INJECTING OPIOIDS?

- The biggest risk from injecting opioids is accidental **overdose**. You may be at risk of overdose if:
 - You are a new user and you think you can handle more than you actually can.
 - You have just started using again – it doesn't take long for your tolerance to drop. After a week or so without using, a dose that at one time wouldn't have touched you could now be life threatening. People getting out of prison often mistakenly think that they can use as much as they previously could.
 - You are used to being injected by someone else and then start injecting yourself, only to find that the dose you thought you were being given was much less than the dose you injected yourself.
 - You use high doses, or you inject again while the effects of the last dose are still in your system.
 - You have a medical problem that may affect how you metabolise or react to the drug.
 - You have other substances on board that affect your breathing and heart rate – for example other depressants such as alcohol, benzos (diazepam, clonazepam, temazepam), zopiclone and other opioids; and antihistamines.
 - You have used drugs from an unknown source or strength. If your first hit isn't strong enough you

can always have more but if it is too strong you can't take it back, so try a smaller amount first to be safe from overdose.

- There is a high risk of contracting **blood borne viruses** such as HIV, hepatitis B and hepatitis C. You can get these viruses through contact with another person's blood. This can occur if you share injecting equipment, especially needles or syringes but there is also a risk when sharing spoons and tourniquets. A cure for Hepatitis C is now available. Ask at your NEP for information about getting tested and treated.
- **Injecting tablets** is risky because they contain additives such as sugar, starch, wax, and powders that can clog up your blood vessels when not filtered properly, this can cause permanent damage to your lungs, heart, liver, kidneys and brain.
- If you are not careful about keeping everything clean, there is a high risk of you getting an **infection** or a **soft tissue injury** such as an abscess, a lump under your skin, or scarring. It is very important to make sure your hands and the area you are injecting into are clean before you touch equipment and inject. Using new equipment and filtering will also reduce the chances of damage to your veins and tissues or getting a dirty shot.



getting treated for hep C has never been so easy.

What are the long-term effects of INJECTING OPIOIDS?

Over time injecting can be very hard on your body and you may experience any of the following:

- Collapsed veins
- Abscesses (swollen tissue filled with pus)
- Insomnia
- Chronic constipation
- Stomach cramps
- Liver and kidney problems
- Low mood
- Difficulty getting or maintaining an erection (in men)
- Irregular menstruation (in women)
- Blood pressure issues as you age

Some of these effects can be managed by taking care of your veins, being careful what you inject, and where you inject, using new and sterile gear, using a tourniquet correctly (always remember to release your tourniquet), filtering your taste, rotating injection sites, making sure you eat good food and keeping hydrated and warm.

OPIOIDS

used in New Zealand

There are a wide range of opioid drugs. We have only covered the ones that are commonly injected in New Zealand. If you want information about safe preparation procedures for the different opioid substances or on less common opioids, your local NZNEP may be able to help. We also welcome you letting us know if there are new or unusual drugs out there so that we can get information out about them for people.

Opium Poppies

Opium poppies grow in most places in New Zealand. The poppy seed head produces a sap that can be smoked or prepared into an injectable solution.



Poppies need to be bled when they have crowned i.e. after they have flowered and the petals have fallen off and only the bulb (the crown) is left.

It is important that you take extra care with filtering when using poppies as there is usually a lot of debris and fungus included in the process and you want to avoid getting this into your bloodstream. Pre-filtering through a ciggy filter (we recommend the wood pulp ones such as Boomerang not the filters from a tailor made as they contain fibreglass particles) or cotton wool is the first step followed by pushing the solution through a wheel filter.

Morphine

Morphine is obtained from opium or extracted from poppy straw. It comes in several forms and formulations. Morphine sulphate (MST or misties) is one such variety. The sulphate component, a chemical salt, makes morphine more soluble in water and easier for the body to absorb. Morphine can be converted to diacetylmorphine (heroin) through a process utilising acetic anhydride (AA or double) or acetyl chloride (AC).

It is important to test what you are using as it may not be what you think it is. To see if it is acetic anhydride (AA) and not acetic acid put a few drops into a glass or vial of cold water. AA should remain separate and drop to the bottom. If it mixes with the water it's probably acetic acid which will not acetylate (turn) the morphine.

Morphine tablets and capsules such as LA morphine, Sevradol and m-Eslon are not designed for injecting. They contain binders and fillers that do not dissolve in water.

Oxycodone

In New Zealand, Oxycodone is available as capsules, tablets and in a liquid form. When used intravenously. Oxycodone is approximately the same strength as morphine.

When preparing Oxycodone for injection some people like to use heat to speed up the process but this can result in contaminants such as wax dissolving into the liquid and passing through filters into your taste. The best way to prepare Oxycodone for injection is using a cold wash method. This method doesn't use any heat, you crush the pill or capsule contents as finely as possible, add a little water and stir. For the best results leave to sit for five to ten minutes to ensure all the drug has dissolved.

The cold water method can also be used for other drugs including morphine when no AA is available.

Pethidine

Pethidine is a synthetic opioid which is available as tablets and in ampoules. It is approximately 1/10th the strength of morphine. Pethidine tablets contain a lot of binders and fillers which means you need to use a bit more water to mix up your taste than you would for other tablets such as morphine.

Methadone

Methadone is a long-acting opioid which is designed to be taken orally. When taken orally it peaks at around four hours, and lasts up to 24 hours but in some people it can be up to 48 hours before the effects wear off. When injected it peaks almost immediately but it wears off more quickly – lasting anywhere between 12-24 hours.

There are risks with injecting methadone such as:

- Takeaway preparations made up at a pharmacy may not be sterile, especially if they are diluted with tap water.
- Injecting methadone which has been in someone else's mouth (or even your own) can be contaminated with bacteria. If you choose to do this you really must always use a .2 micron (blue) wheel filter to avoid having a dirty hit or other more serious problems.
- Localised vein irritation, and swelling in your hands.

We recommend you use a syringe size appropriate to the amount being injected rather than boiling methadone down to fit into a smaller syringe. If you are reducing methadone, it should not be reduced to a concentrate of more than 10mg/ml as it will be too acidic, which can damage your veins.

Heroin

Heroin is not commonly available in New Zealand these days although it does turn up from time to time. It is processed from morphine and usually appears as a white or brown powder or crystals. The effects of heroin are felt immediately after it is injected but it is short acting - i.e. it wears off after a few hours. Unless you are used to injecting heroin it would pay to be cautious as it may be stronger than you think. It may also contain other substances such as fentanyl.

Home-bake

Home-bake is morphine produced from codeine products utilising a complex conversion process involving a number of chemicals. The use of home-bake seems to be closely associated with localised injection related damage, such as skin rashes and abscesses.

Home-bake is not the same as 'turned' Morphine which is done through a process using AA or Double (acetic anhydride).

Buprenorphine with naloxone (suboxone)

We advise against injecting suboxone due to the inclusion of naloxone. The naloxone does not have an effect if used as prescribed, however if you inject it you are likely to experience immediate withdrawal symptoms such as nausea, fever, sweating, body aches, runny nose etc. These can last up to 60 minutes i.e. the time it takes for buprenorphine to dispatch the naloxone from your body.

If you intend to inject suboxone anyway we recommend smaller doses as these are less likely to result in withdrawal effects as the dose of naloxone is lower i.e. 2mgs naloxone to 8mgs buprenorphine.

Buprenorphine activates the opioid receptors in your brain, but to a much lesser degree than methadone. Both are long-acting opioids which is why they are useful for OST. When you inject Buprenorphine you will notice that it comes on quickly but it also leaves your body sooner than if dissolved in your mouth.

Fentanyl and fentanyl analogues

Although the effects of fentanyl are similar to those of other high potency opioids it is much stronger than any other opioids we have seen in New Zealand. It is reported to be 50-100 times stronger than morphine sulphate. This means 1mg of injected fentanyl has roughly the same effect as 50mg -100mg of injected morphine.

You will know of some very famous people who have overdosed and died from injecting fentanyl. Some thinking that it is heroin. Fentanyl comes on very quickly – in one to five minutes but it doesn't last long - five to twenty minutes. You have to ask yourself if the risk is worth it.

Patches

Fentanyl patches are designed to stick to a person's skin where it releases the drug into the blood stream at a controlled rate. It is very important that you know the strength of the patch before preparing it for injection. If the dose is not on the patch use extreme caution and we recommend that it not be injected. Even if the lowest patch dose i.e. 12.5mcg / per hour (which contains 2.1mg fentanyl) is injected you will be injecting the equivalent of 210mgs of morphine. Unless you are an experienced user and you know the amount you can cope with, you will be at high risk of overdose which could be life threatening. However if you are going to inject then the best advice would be that you **try a small amount first to gauge the**

effect or if using with someone else take turns and wait long enough to make sure the first person is ok.

If fentanyl is injected from a **used patch** it may have been stuck on someone else's skin for three or more days and is likely to have bacteria and fungus stuck to it. To reduce the risks of infection or a 'dirty hit' from using a used patch it is essential you put the solution through a 0.2 micron (blue) wheel filter before it is injected.

Fentanyl analogues

Currently there are over 40 analogues of fentanyl that have been synthesized. While these are of varying potency they are all significantly stronger than morphine.

Carfentanyl (or Carfentanyl) is the strongest analogue of fentanyl. A dose of Carfentanyl is approximately 10,000 times more potent than morphine. It's only legitimate use outside of laboratory research is as a general anaesthetic agent for large animals, such as elephants. Carfentanyl IS NOT INTENDED FOR HUMAN CONSUMPTION, a dose the size of a grain of salt WILL kill you.



Drug combinations

Because of the sedative effect of opioids and because they slow down your breathing and heart rate it is important that you **avoid using other drugs** that also have sedative effects, such as other opioids, benzos and alcohol as they will further slow down your breathing and increase sedation (sleepiness).

Some people combine **antihistamines** such as Cyclizine (Marzine or Nausicalm), Promethazine (Phenergan), and Unisom Sleep gels with their methadone. All of these substances add to the sedative effects of opioids, and may further reduce your breathing and heart rate, and are therefore a very risky combination. In tablet and capsule form they also contain binding agents that are difficult to completely filter out and can therefore be very damaging to your veins and surrounding tissues.

Ask at your local NEP for information for information about using these substances safely. There is no safe way to inject Unisom sleep gels or Phenergan syrup however.

When **opioids and stimulants** (sometimes called a speedball) are used they can have a combined impact on the dopamine processes in your brain and result in an additive effect rather than one of cancelling each other out. This can be especially risky because the stimulant can also mask the effects of an opioid overdose so that you don't realise you are going over.

Gabapentin and Pregabalin are drugs prescribed for nerve pain. They are sometimes taken orally by people to enhance the effects of injected opioids. In small doses the effects can include relaxation, increased sociability and euphoria and at high doses dissociation and sedation. High doses (especially of pregabalin) can cause overdose

especially as they take 2-3 hours to kick in and in this time you might be tempted to have more thinking they are not very strong. They can also add to the effects of other depressant type drugs such as benzos and opioids. This might be fine if it is a positive effect but if it adds to reduced breathing or heart rate it could be life threatening.



Equipment recommended for OPIOID INJECTION

Drug		Needles		Syringe	Filters
100 mg MST		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Blue wheel filter
60 mg MST		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Green wheel filter Red wheel filter for two or more 60s
30 mg MST		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Red wheel filter Brown for two or more 30s
M-Eslon		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Red wheel filter
PH'd Morphine		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Blue wheel filter
Heroin		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Blue wheelFilter
Pethidine		26g or 27g + 18g draw up	2 x 3ml/5ml/10ml or 1 x 3ml & 1 x 5ml or 10ml mixing barrel		Ciggy filter or cotton Blue wheel filter
Biodone / Methadone (no thickener)		26g/27g or 25g Butterfly + 18g draw up	2 x 3ml/5ml/10ml/20ml/30ml/50ml depending on volume to be injected		Ciggy filter or cotton Blue wheel filter
Methadone with Cyclizine (Marzine / Nausicalm)		26g/27g or 25g Butterfly + 18g draw up	2 x 3ml/5ml/10ml/20ml/30ml/50ml depending on volume to be injected		Ciggy filter or cotton Green wheel filter Red wheel filter for three or more
Oxycodone		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Blue wheel filter
Opium		26g or 27g + 18g draw up	3ml x 2		Ciggy filter or cotton Red wheel filter

The wheel filters listed on the previous page are based on the premise that some people will only be able to use one, however we recommend that if possible a blue wheel filter be used for every taste in addition to the ones where it is not listed above and especially if you are unsure about how sterile the substance you are injecting is.



We also recommend:

- That a tourniquet always be used for intravenous injections.
- Sterile water for injection be used over tap, bottled and other sources of water to avoid bacteria.
- An alcohol swab always be used to wipe (one swipe, one way) your injection site before injecting (but not after injecting when you should always apply pressure with a clean dry tissue). Injection sites can also be cleaned with soap and water.

SAFETY

tips

- If you are using opioids that come from an unknown or a new source, or that you don't know the strength of (e.g. with poppies or a new home bake batch), **try a little bit first.**
- **Don't use alone** as there will be no-one there to help if anything goes wrong.
- **Store your drugs securely** so that they are not able to be accessed by children.
- **Come to a Needle Exchange for Naloxone** and learn how to use it so that you and your whanau and friends know what to do if someone overdoses.



- Use new, sterile equipment for each hit
- Never share needles, syringes or any other injecting equipment – even with your loved ones
- Filter every taste
- Always clean or swab your injection site
- Look after your veins - rotating your sites is vital
- Keep hydrated and warm
- Dispose of all your equipment in your sharps container



OVERDOSE

What are the signs of an opioid overdose?

An opioid overdose occurs when you use an amount of a drug that causes your breathing to slow down or stop. Overdose can happen suddenly or creep up on you over several hours. When your breathing slows down the oxygen levels in your blood and brain are reduced and the level of carbon dioxide is increased. Lack of oxygen can cause brain damage and can be life threatening. It is important therefore that you and your friends are able to recognise when someone you are with is overdosing rather than 'nodding off' and are able to respond quickly.

Signs of overdose

It is likely a person has overdosed if they have:

- fallen asleep or are unconscious and do not respond to their name or to being touched.
- blue lips, tongue and hands and their skin is cool and pale.
- are making choking, gurgling or snoring sounds.
- stopped breathing or their breathing is slow and shallow.
- very small or 'pinned pupils'.

Don't panic, stay calm and follow these steps.

STEP ONE

Check if the person is conscious by gently shaking them and calling their name. If they don't respond rub your knuckles firmly over their breast bone (middle of chest).

STEP TWO

If the person still does not respond **ring 111** and ask for an ambulance.

All you have to say is 'someone is unresponsive and not breathing'. You do not have to say they have taken an overdose.

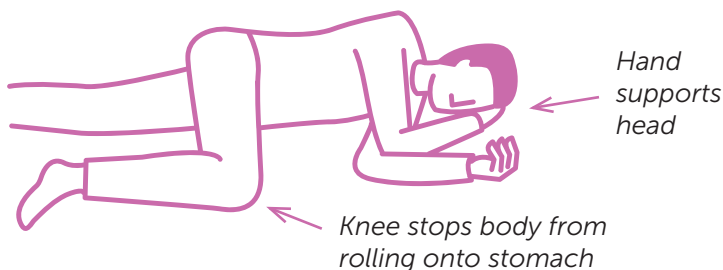
Call for help from other people if you are alone.

STEP THREE

If the person is **breathing ok** put them in the **recovery position** and remove anything from their mouth and throat so that they do not choke.

The Recovery Position

1. Roll them into position (see diagram)
2. Tilt their head backwards and turn their mouth slightly downwards to allow drainage
3. Clear any obstructions from their mouth or throat
4. Listen and look for normal breathing
5. Stay with them until help arrives



Make sure the environment is safe and that there are no uncapped needles lying around.

Keep monitoring the person until the ambulance arrives.

When the ambulance arrives tell them what the person has taken.

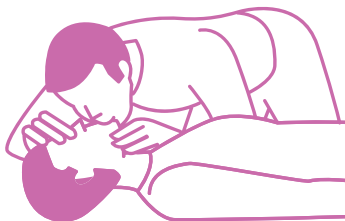
STEP FOUR

If the person is NOT breathing normally start rescue breathing

How to do Rescue Breathing

Rescue breathing for adults involves the following steps:

- Roll the person onto their back
- Place one hand on their forehead and place your other hand under their chin
- Tilt their head back with one hand under their neck
- Clear their airway of any blockages (food and vomit)
- Pinch off their nose and seal your mouth over theirs then give TWO slow strong breaths
- Continue one slow strong breath every 5 seconds until the person breathes on their own, or until the ambulance arrives



STEP FIVE

ADMINISTER NALOXONE if it is available otherwise go to Step Six

Follow the instructions in your naloxone pack.

If the person does not respond within 2-3 minutes after administering a dose of naloxone give them a second dose. Overdoses involving large quantities of opioids, or ones that are highly potent (such as fentanyl), are likely to require two or more doses of naloxone.

STEP SIX RECOVERY

- a. If the person recovers and is **breathing ok** after you have done rescue breathing or after administering naloxone, put them into the **recovery position**
- b. If the person is **not ok** continue **rescue breathing** and start **chest compressions**

Chest Compressions

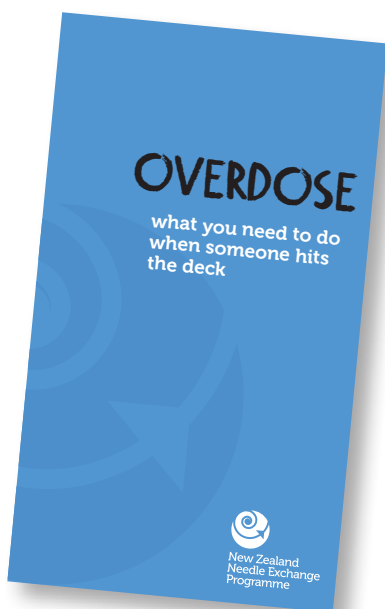
1. Lie the person on their back on a firm surface – like the floor or the ground – (not a bed as it is too springy). Kneel down beside them.
2. Place the heel of your hand over the centre of their chest. Put your other hand directly over the first one and interlace your fingers. Make sure your elbows are straight and your shoulders directly above your hands.
3. Using your upper body weight, push hard and fast straight down on the person's chest – push down about 2 inches. Then release the pressure and repeat.
4. Give 30 chest presses followed by two rescue breaths each minute and keep on doing this until help arrives.



c. **Stay with the person**

Don't leave them on their own. Overdose symptoms may return.

When the ambulance arrives tell them what the person has taken. If you have given them naloxone let the ambos know how much was given.



Addiction to OPIOIDS

Opioids are addictive and can be very difficult to stop due to the unpleasant withdrawal symptoms some people experience. If you use opioids regularly you are likely to develop tolerance to them. This means that you will need a higher dose, and you may need to use more often, to get the same high.

Other changes that indicate that you may be becoming dependent, or have become dependent, are the extent to which your drug use has developed importance in your life. For example if finding your next hit has become more important than other activities you were previously involved in such as sport, work, eating regularly, taking the kids to school etc. then this could be a sign.

Remember to use new equipment every time.

OPIOID

withdrawals

If you do become dependent on opioids you may experience withdrawal symptoms if you stop or are unable to use at regular intervals. Withdrawal symptoms vary from person to person – even if two people have been using the same amount of the drug and they reduce at the same rate, their experience of withdrawal can be different - but they generally include:

- cravings for the drug
- yawning
- sweating
- loss of appetite, vomiting and diarrhoea
- stomach and muscle cramps
- irritability
- low mood and anxiety
- insomnia/sleep problems
- agitation

The speed and severity of withdrawal depends on the particular opioid you have been using. For example morphine withdrawals occur more quickly than methadone withdrawals because they have a shorter length of action, but methadone withdrawal lasts longer because methadone is a longer acting opioid.

As a general guide, physical opioid withdrawal symptoms will usually peak at two to four days after you last used. They then begin to weaken and usually subside after six to seven days (although they can last longer if you are withdrawing from longer acting opioids like methadone). It is not uncommon for some of the non-physical symptoms such as cravings, low mood, anxiety, sleep problems, irritability, frustration, and problems coping with stress to continue for six months or more. It is important to remember that not everyone will experience all of these symptoms. Some can be reduced with the help of medication or supplements. Talking about them to a friend or health professional can also help.

Treatment for opioid dependence

If you have become dependent on opioids and are wanting to come off we recommend you talk to a health professional (a doctor, nurse, support worker etc.) as they may be able to help you decide which way of stopping would suit you best. They may also be able to organise medication to help you manage your withdrawals. Staff at the NZNEP can give you information about how to access detox or opioid substitution treatment services. Matua Raki have produced a good booklet on coping with withdrawals. Ask for a copy at your local NZNEP outlet.

Resources

The New Zealand Needle Exchange Programme (NZNEP) have published a booklet on **'Overdose'** that includes how to do CPR. Read this so that you are prepared and know what to do before you or one of your friends OD's.

We also recommend that you read the booklet **'Veintenance'** to learn more about which veins to use and about caring for your veins and also **'Injecting and Your Health'** which explains the injecting process and **'Filtering Drugs'** which shows you which filters to use and how to use them.



We recognise that everyone is different and recommend you talk to staff at your local NZNEP about any specific needs you have and for advice on what might work best for you.

Getting Help

New Zealand Needle Exchanges

Contact a New Zealand Needle Exchange Programme outlet in your area for confidential information about hepatitis C screening and treatment, obtaining needles, syringes and other injecting equipment as well as harm reduction advice. NZNEP staff will also be able to provide information on treatment services available.

Visit the NZNEP website for information about Needle Exchange Outlets in your area. www.nznep.org.nz

Information and Treatment Referral

- The Alcohol and Drug Helpline 0800 787 797 provides confidential advice and is able to refer you to an addiction service provider.
- Community Alcohol and Drug Services and Opioid Treatment Services

Most opioid treatment services can be accessed through your local Community Alcohol and Drug Services (CADS). Opioid treatment mainly involves the prescription of a daily dose of methadone or buprenorphine with naloxone. Counselling is generally also offered. If you can't stop taking opioids, going onto opioid treatment can be a start to building a life away from opioid use and at the very least remove or reduce your cravings and withdrawal symptoms and provide relief from having to find drugs every day.

DON'T SHARE
A BLOODY THING



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