



# Illicit Drugs information Package

Hunter New England Health

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## INTRODUCTION

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“New drugs appear frequently in the constantly changing illicit drug industry and are often hailed as ‘the most dangerous drug yet’. In the politicised and highly charged environment surrounding illicit drugs, it is difficult, but all the more important, to maintain a balanced and evidenced based approach to policy and practice” (17 p 334).



A report released in 2000 from the NSW Chief Health Officer revealed that 436 persons died in NSW as a result of illicit drug (34). The household drug survey (1998) reported that 45.1% of the NSW population over

the age of 14 had used illicit drug. The same survey (1998) reported a growing trend in polysubstance use and increase in the number of deaths attributable to illicit drug use (31).

Problems that arise from illicit drug use include intoxication, overdose, health and social problems, physical dependence, exacerbation of psychiatric illness, emergence of symptoms of psychiatric disorders and for intravenous users and increased risk of HIV, hepatitis B and C (34). As a health care provider illicit drug use is not a moral issue but a health issue. Many factors impact on the health professional’s ability to deliver optimal care and an understanding of common illicit drugs, clinical features related to their presentations and management strategies will facilitate effective management of patients presenting under the influence of illicit drugs (27).

*The use and abuse of illicit drugs is a social, legal and health issue that creates an annual illegal market estimated to be worth \$6.7 billion au*

# CLASSIFICATION OF ILLICIT DRUGS

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**STIMULANTS** increase activity in the central and autonomic nervous systems, increasing wakefulness, masking fatigue, suppressing appetite, producing insomnia and promoting euphoria. Physiological effects include increased heart rate, blood pressure and respirations, vasoconstriction of blood vessels and pupil dilation. Psychostimulants act on the monoamine system specifically relating to the neurotransmitters dopamine, noradrenaline and serotonin

Common illicit stimulants:

- Amphetamines
- Cocaine
- Methamphetamine (Speed, Ice)

**DEPRESSANTS** decrease the effects of the central and autonomic nervous systems, promote euphoria, inducing sedation, increase anaesthetic effects, provide analgesic effects and relieve anxiety. Physiological effects include decreasing heart rate and respirations.

Common illicit depressants:

- Benzodiazepines
- Narcotics (Heroin)
- Inhalants (Petrol)
- GHB

**HALLUCINOGENS** produce sensory distortions, providing mood and thought altering effects and affecting all senses the effects are subjective and can differ widely depending on the user.

Common illicit hallucinogens:

- Lysergic acid diethylamide (LSD)
- Psilocybin and psilocin (Magic mushrooms)

**OTHERS** Specific other illicit drugs do not work directly on the central and autonomic nervous systems, working directly on specific chemicals in the brain.

**CANNABINOIDS** Primary chemical in cannabinoids is THC, which produces effects by attaching to specific brain receptors.

Including

- Cannabis/Marijuana (Leaves and buds)
- Hash

## PERFORMANCE AND IMAGE ENHANCING DRUGS (PIEDS)

are substances taken by people with the intention of improving their physical appearance and to enhance their sporting performance.

Common PEIDS:

- Steroids
- Peptides
- Hormones

## SYNTHETICS OR NEW PSYCHOACTIVE SUBSTANCES (NPS)

is a general term for drugs that are designed to produce similar effects to common illicit drugs such as cannabis, cocaine and ecstasy.

Manufacturers of these drugs use new chemicals to replace those that are banned and are constantly

changing the chemical structure of the drugs to stay ahead of the law. NPS are often also referred to as synthetic drugs, legal highs, herbal highs, party pills, synthetic cocaine, synthetic cannabis, herbal ecstasy, bath salts, plant fertiliser, herbal incense, new and emerging drugs (NEDs), drug analogues and research chemicals. These products can sometimes be marked 'not for human consumption'.

Energy drinks: Do they really give you wings to fly?

# CANNABIS



## What is cannabis?

Cannabis is a depressant drug. Depressant drugs do not necessarily make you feel depressed. Rather, they slow down the activity of the central nervous system and the messages going between the brain and the body. When large doses of cannabis are taken it may also produce hallucinogenic effects. The main active chemical in cannabis is THC (delta-9 tetrahydrocannabinol).

## Common names

Cannabis is also known as grass, pot, hash, weed, reefer, dope, herb, mull, buddha, ganja, joint, stick, buckets, cones, skunk, hydro, yarndi, smoke and hooch.

## Effects of cannabis

The effects of any drug vary from person to person. How cannabis affects a person depends on many things including their size, weight and health, whether they are accustomed to taking the drug, whether other drugs are present in their body, and the amount taken.

Inhaled drugs reach the bloodstream quicker than those that are eaten. This means that the effects can be felt more rapidly when cannabis is smoked rather than eaten.

## Low to moderate doses

Low to moderate doses of cannabis can produce effects that last two to four hours after smoking. The effects of ingested (eaten) cannabis usually start within one hour. Some of the effects may include:

- ∴ Loss of inhibition
- ∴ Spontaneous laughter
- ∴ quiet and reflective mood
- ∴ altered perception including sound, colour and other sensations
- ∴ altered memory and thinking, confusion
- ∴ anxiety and mild paranoia
- ∴ altered vision and bloodshot eyes
- ∴ relaxation or sleepiness
- ∴ reduced coordination and balance
- ∴ increased heart rate
- ∴ low blood pressure
- ∴ Increased appetite.

## Higher Doses

High doses of cannabis may produce the following effects:

- ∴ confusion and paranoia
- ∴ Restlessness and excitement
- ∴ anxiety and panic
- ∴ detachment from reality
- ∴ Decreased reaction time.

## Long Term Usage

Long-term cannabis use can have many effects:

- ∴ Brain: impaired concentration & memory
- ∴ Lungs: sore throat, asthma and bronchitis
- ∴ Hormones: lowered sex drive, irregular menstrual cycle and lowered sperm count
- ∴ Immune system: more likely to develop coughs, colds and other illnesses associated with an impaired immune system
- ∴ Mental health: heavy and regular use in particular may be linked to a condition known as a drug-induced psychosis, or cannabis psychosis.

There is some evidence that regular cannabis use increases the likelihood of psychotic symptoms in people who are already vulnerable due to a personal or family history of mental illness. Cannabis also appears to make psychotic symptoms worse for people with schizophrenia, and using cannabis can lower the chances of recovery from a psychotic episode.

## Withdrawal

If a dependent person stops taking cannabis, they may experience withdrawal symptoms. People may experience withdrawal symptoms for

less than a week, although their sleep may be affected for longer.

Withdrawal symptoms may include:

∴ cravings for cannabis

∴ loss of appetite and weight loss

∴ upset stomach

∴ irritability and anxiety

∴ sweating, chills and tremors

## MANAGEMENT



(20,27,30,37)

# AMPHETAMINES



## What is Amphetamines?

They are stimulant drugs that speed up bodily functions and may make a person feel more alert and full of energy. Methamphetamine comes in different forms:

- ∴ **A powder**, sometimes called “speed”, “meth”, “up”, “fast”, “louee”, “goey”, “whiz”, “pep pills” or “uppers”.
- ∴ **A crystalline powder**, crystal methamphetamine, that is sometimes called “ice”, “crystal meth”, “meth”, “glass”, or “shabu”. It is more pure than other forms of methamphetamine and has a stronger effect, as well as stronger side effects and a worse “comedown”.
- ∴ **An oily paste or powder**, sometimes called “base”, “paste”, “pure” or “wax”.

These types of methamphetamines are made in backyard laboratories and are sold illegally. This means that these drugs are often mixed with other substances that can have unpleasant and unexpected effects. It also means that you can't be sure exactly what is in the drug and how

strong (pure) it is. This can make it easy to use too much and overdose.

## Effects of Methamphetamine

The stimulant effects of methamphetamine can last from anywhere between 7 and 24 hours, but some of the other unwanted effects could last a lot longer. Soon after taking methamphetamines you may experience a range of effects including:

- ∴ A speeding up of bodily functions, including an increased heart rate, breathing and blood pressure—this can put extra strain on the heart and body.
- ∴ Feeling more energetic, alert, increased concentration.
- ∴ Talkative and restlessness—you may repeat simple acts such as itching, picking and scratching the skin which can leave sores.
- ∴ Jaw clenching and teeth grinding—which »combined with poor dental hygiene can lead to dental problems.
- ∴ Feeling excited and a sense of wellbeing. »
- ∴ Increased confidence—this may lead you to take »risks or do things that you wouldn't

normally do where you can hurt yourself and others.

- ∴ Increased strength and faster reaction times—you »may accidentally hurt other people.
- ∴ A dry mouth, enlarged pupils, and increased body »temperature and sweating.
- ∴ Reduced appetite—over time, not eating »enough food can lead to weight loss, unhealthy appearance, skin problems and malnutrition.
- ∴ Headaches and dizziness. »
- ∴ Rapid shifts in the way you think and speak—this »can make you difficult to understand or behave in a strange way.
- ∴ Anxiety and paranoia—you may even have panic »attacks and experience a range of mental health problems.
- ∴ Irritability, hostility and feeling aggressive—you may »have mood swings, become argumentative and may get into physical fights.
- ∴ Difficulty sleeping—this can affect your health, »appearance, mood and makes it difficult to concentrate and stay awake the next day

Larger amounts can increase the effects listed above and can also cause blurred vision, stomach cramps, tremors and loss of coordination, seizures, stroke and heart failure. Some people may also experience “amphetamine psychosis” which includes paranoid delusions and hallucinations. For example, they may feel overly suspicious and that people are “out to get them” (paranoid delusions) or they might see or hear things that aren’t really there (hallucinations). This might lead to aggressive or violent behaviour.

### How is it used?

As well as the effects of methamphetamine, the way you use it can also affect your health. For example:

- ∴ Snorting it repeatedly can damage the lining of your nose

- ∴ Smoking it can damage your lungs
- ∴ Injecting it can damage blood vessels and cause: abscesses and scarring
- ∴ sharing snorting, smoking or injecting equipment, increases the risk of contracting blood-borne viruses such as hepatitis B, hepatitis C and HIV (Human Immunodeficiency Virus—the virus that causes AIDS)

### “Coming Down”

As with the use of most drugs—what goes up must come down.

Once the initial effects of methamphetamine begin to wear off you may start to experience a range of other effects. These effects might last for several days and can include:

- ∴ lethargy, exhaustion and increased sleep
- ∴ reduced appetite
- ∴ mood swings
- ∴ Feeling restless, irritable, tense and anxious - some people may even become violent feeling down, even depressed.
- ∴ paranoia

Even the mild effects of “coming down” such as being tired, moody and irritable might not seem like a big deal but can cause problems. You might get into arguments with your friends and family because you are in a bad mood or always tired. School and work may suffer if you are having trouble concentrating because you are tired or not feeling well.



# MANAGEMENT



(4,7,20,21,22,25,27,30,33,37).

# ECSTASY

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## What is Ecstasy?

Ecstasy is a stimulant drug, which means it speeds up the messages between the brain and the body. Although ecstasy is sometimes described as a mild hallucinogen, it is very rare for a person using ecstasy to hallucinate. Ecstasy contains methylenedioxymethamphetamine (MDMA), although it sometimes contains different drugs such as amphetamine, paramethoxyamphetamine (PMA) and ketamine.

## Common names

Some other common names for ecstasy include: E, XTC, eccy, the love drug and pills.

## Effects of Ecstasy

The effects of any drug vary from person to person. How ecstasy affects a person depends on many things including their size, weight and health, whether they are accustomed to taking the drug, whether other drugs are present in their body, and the amount taken.

There is no safe level of drug use. Use of any drug always carries some risk and can produce unwanted side effects.

## Low to moderate doses

The effects of taking ecstasy may start to be felt within 20 minutes to one hour after an ecstasy pill has been swallowed and

may last for approximately six hours.

Some of the effects may include:

- ∴ Increased confidence and energy, more likely to take risks
- ∴ Feelings of wellbeing
- ∴ Feelings of closeness to others and empathy
- ∴ Paranoia, aggression and psychosis
- ∴ Poor muscle control and unsteadiness
- ∴ Muscle aches and stiffness
- ∴ Increased blood pressure and heart rate
- ∴ Nausea and loss of appetite
- ∴ Increased body temperature and sweating
- ∴ Skin tingles
- ∴ Dilated pupils
- ∴ Heightened sensations (sight, hearing, touch)
- ∴ Jaw clenching and teeth grinding.

## Higher Doses

A high dose of ecstasy can also cause vomiting, hallucinations, convulsions (fits). Ecstasy has also been linked to several deaths through heart attack and brain haemorrhage.

## Long Term Usage

There is some evidence that ecstasy can cause damage to some parts of the brain and that regular, heavy use can lead to depression. A person who regularly takes ecstasy may find that they are not eating or sleeping

enough and are neglecting their health. They may feel 'run down', have reduced energy levels and be at increased risk of colds, flu and infections.

## Withdrawal

If a dependent person stops taking ecstasy, they may experience withdrawal symptoms. These may start about 12 hours after the last dose. While severe physical symptoms are uncommon, ecstasy withdrawal can cause problems such as:

- ∴ sleepiness or insomnia
- ∴ cravings
- ∴ anxiety, agitation or restlessness
- ∴ depression
- ∴ loss of concentration
- ∴ Aches and pains

## MANAGEMENT:



(4,7,20,21,22,24,27,30,35,37).

# HEROIN



## What is Heroin?

Heroin is a depressant drug.

Depressant drugs do not necessarily make you feel depressed. Rather, they slow down the activity of the central nervous system and the messages going between the brain and the body.

Heroin is made from the opium poppy. It is one of a group of drugs known as 'opioids'. Other opioids include opium, morphine, codeine, pethidine, oxycodone, buprenorphine and methadone.

## Common names

Heroin is also known as smack, skag, dope, H, junk, hammer, slow, gear, harry, big harry, horse, black tar, china white, Chinese H, white dynamite, dragon, elephant, home-bake and poison.

## Effects of Heroin

The effects of any drug vary from person to person. How heroin affects a person depends on many things including their size, weight and health, whether they are accustomed to taking it, whether other drugs are present in their body, and the amount taken.

There is no safe level of drug use. Use of any drug always carries some risk –

even prescribed medications can produce unwanted side effects.

## Low to moderate doses

Heroin is usually injected into a vein, but it's also smoked ('chasing the dragon'), and added to cigarettes and cannabis. The effects are usually felt straight away. Sometimes heroin is snorted – the effects take around 10 to 15 minutes to feel if it's used in this way. The following effects may be experienced and last for three to five hours:

- ∴ Intense pleasure and pain relief
- ∴ Relaxation, drowsiness and clumsiness
- ∴ Confusion
- ∴ Slurred and slow speech
- ∴ Slow breathing and heart beat
- ∴ Dry mouth
- ∴ Tiny pupils
- ∴ Reduced appetite and vomiting
- ∴ Decreased sex drive.

Injecting heroin and sharing needles may also cause:

- ∴ Tetanus
- ∴ Hepatitis B
- ∴ Hepatitis C
- ∴ HIV/AIDS.

## Higher Doses

Large amounts of heroin or a strong batch may also produce the following effects:

- ∴ Trouble concentrating

- ∴ Falling asleep ('going on the nod')
- ∴ Wanting to urinate but finding it hard to
- ∴ Increased sweating and itching
- ∴ Irregular heartbeat
- ∴ Cold, clammy skin
- ∴ Slow breathing, blue lips and finger tips
- ∴ Passing out
- ∴ Death.

## Long Term Usage

Regular use of heroin may eventually cause:

- ∴ Intense sadness
- ∴ Irregular periods and difficulty having children (females)
- ∴ Loss of sex drive (males)
- ∴ Constipation
- ∴ Damaged heart, lungs, liver and brain
- ∴ Vein damage and skin, heart and lung infections from injecting
- ∴ Taking heroin with other drugs.

The effects of mixing heroin with other drugs, including alcohol, prescription medications and over-the-counter medicines, are often unpredictable.

Mixing heroin with other depressant drugs, such as alcohol, cannabis or benzodiazepines can cause breathing to slow and eventually stop.

Combining heroin with stimulant drugs such as ice, speed or ecstasy places enormous strain on the heart and body, which can lead to stroke.

### Withdrawal

If a dependent person stops taking heroin, or severely cuts down the amount they use, they may experience withdrawal symptoms.

These symptoms can start within six to 24 hours after the last dose. They usually peak within one to three days and gradually subside after five to seven days.

Withdrawal symptoms that may be experienced include:

- ∴ Cravings for heroin
- ∴ Restlessness and irritability
- ∴ Depression and crying

- ∴ Diarrhoea
- ∴ Restless sleep and yawning
- ∴ Stomach and leg cramps, muscle spasms
- ∴ Vomiting and no appetite
- ∴ Goose bumps
- ∴ Runny nose
- ∴ Low blood pressure and fast heart rate.

## Management



# COCAINE



## What is Cocaine?

Cocaine is a stimulant drug, which means it speeds up the messages going between the brain and the body.

## Common names

Some common names for cocaine include C, coke, nose candy, snow, white lady, toot, Charlie, blow, white dust and stardust.

## Effects of Ecstasy

The effects of any drug vary from person to person. How they affect a person depends on many things including their size, weight and health, whether they are accustomed to taking the drug, whether other drugs are present in their body, and the amount taken. There is no safe level of drug use. Use of any drug always carries some risk and can produce unwanted side effects.

## Low to moderate doses

The effects of cocaine can last anywhere from a few minutes to two hours, depending on how the cocaine is taken. When the immediate 'rush' of the cocaine has worn off, the person may experience a 'crash'. Some of the effects that may be

experienced after taking cocaine include:

- ∴ feelings of euphoria and invincibility, more likely to take risks
- ∴ increased confidence and talkativeness or quiet contemplation and rapture
- ∴ feelings of great physical strength and mental capacity
- ∴ increased libido
- ∴ anxiety, agitation, paranoia and panic
- ∴ unpredictable, violent and aggressive behaviour
- ∴ feeling more awake
- ∴ increased performance on simple tasks
- ∴ enlarged (dilated) pupils
- ∴ dry mouth
- ∴ increased breathing rate, blood pressure and heart rate (after initial slowing)
- ∴ reduced appetite
- ∴ increased body temperature
- ∴ Indifference to pain.

## Higher Doses

A high dose of cocaine can cause a person to overdose.

Not knowing the strength or purity of the cocaine increases the risk of overdose. Injecting cocaine also increases this risk due to large amounts of the drug entering the blood stream and quickly travelling to

the brain. The effects of higher doses of cocaine can include:

- ∴ anxiety or paranoia
- ∴ tremors and muscle twitches
- ∴ nausea and vomiting
- ∴ sleep disorders
- ∴ rapid and weak pulse
- ∴ chest pain or heart attack
- ∴ kidney failure
- ∴ hypothermia (low body temperature) or increased body temperature
- ∴ seizures
- ∴ brain haemorrhage
- ∴ coma and death.

High doses and frequent heavy use can also cause a 'cocaine psychosis', characterised by paranoid delusions, hallucinations and unusual, aggressive or violent behaviour. These symptoms usually disappear a few days after the person stops using cocaine.

## Long Term Usage

Long-term effects of cocaine use include:

- ∴ Insomnia and exhaustion
- ∴ Depression
- ∴ Anxiety, paranoia and psychosis
- ∴ Eating disorders and weight loss
- ∴ Sexual dysfunction
- ∴ Hypertension and irregular heart beat
- ∴ Sensitivity to light and sound
- ∴ Hallucinations.

Some other long-term effects of cocaine are related to the method of using cocaine:

- ∴ Repeated snorting damages the nasal lining and the structure separating the nostrils (the nasal septum).
- ∴ Smoking crack cocaine can cause breathing difficulties, chronic cough, bronchitis and other respiratory problems.

- ∴ Cocaine is often 'cut' with substances that are toxic when injected. They can cause collapsed veins, abscesses and damage to the heart, liver and brain.
- ∴ If injected into the skin, cocaine causes severe vasoconstriction, which may prevent blood flowing to the tissue, potentially resulting in severe tissue damage

### Withdrawal

If a dependent person stops taking cocaine, they may experience withdrawal symptoms, including:

- ∴ cravings for cocaine
- ∴ agitation depression or anxiety
- ∴ extreme fatigue and exhaustion
- ∴ disturbed sleep
- ∴ angry outburst

## MANAGEMENT



(4,7,20,22,25,37)

# HALLUCINOGENS

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## What is Hallucinogens?

Hallucinogens (also known as 'psychedelics') can make a person see, hear, smell, feel or taste things that aren't really there or are different from how they are in reality. Some plants such as magic mushrooms can cause hallucinations. Hallucinogens such as LSD can also be made in a lab.

## Types of Hallucinogens

### **LSD (Lysergic acid diethylamide)**

Also known as acid, trips, tabs, microdots, dots. In its pure state, LSD is a white odourless powder.

However, it usually comes in squares of gelatine or blotting paper that have been dipped or soaked in LSD.

LSD is also sometimes sold as a liquid, in a tablet or in capsules. LSD is usually swallowed, but it can also be sniffed, injected or smoked.

### **Magic mushrooms**

Also known as shrooms, mushies, blue meanies, golden tops, liberty caps.

There are many different types of magic mushrooms. The most common ones in Australia are called

golden tops, blue meanies and liberty caps. Magic mushrooms look similar to poisonous mushrooms that can cause a person to become very sick and can result in death.

Magic mushrooms are usually sold as dried mushrooms, a powder or as capsules.

Mushrooms are often eaten fresh, cooked or brewed into a tea. They are sometimes mixed with tobacco or cannabis, and smoked.

### **Mescaline (peyote cactus)**

Also known as cactus, cactus buttons, cactus joint, mesc, mescal.

Mescaline is the active ingredient of the peyote cactus plant. It is also known to be made synthetically in a lab.

In its pure form, mescaline sulphate is a white crystal-like powder. Synthetic mescaline can come in different colours. The peyote cactus contains 'buttons'

## Effects of Hallucinogens

There is no safe level of drug use. Use of any drug always carries some risk. It's important to be careful when taking any type of drug.

Hallucinogens affect everyone differently, based on:

- ∴ Size, weight and health
- ∴ Whether the person is used to taking it.
- ∴ Whether other drugs are taken around the same time
- ∴ The amount taken
- ∴ The strength of the drug (varies from batch to batch)

The effects of hallucinogens can last for 4 to 12 hours and can be different depending on which type of hallucinogen is used. The following may be experienced during this time:

- ∴ Feeling happy and relaxed
- ∴ Seeing and hearing things that aren't there
- ∴ Confusion and trouble concentrating
- ∴ Dizziness
- ∴ Blurred vision
- ∴ Clumsiness
- ∴ Fast or irregular heart beat
- ∴ Breathing quickly
- ∴ Vomiting
- ∴ Sweating and chills
- ∴ Numbness

## “Bad Trips”

Sometimes a ‘bad trip’ may be experienced, involving a disturbing hallucination. This can lead to panic and risky behaviour, like running across a road or attempting suicide. If a large amount or a strong batch is taken the negative effects of hallucinogens are more likely.

## Long Term Usage

People who regularly use hallucinogens may eventually experience flashbacks. Flashbacks are hallucinations that occur weeks, months or even years after the drug

was last taken. This can be disturbing, especially when the hallucination is frightening.

Flashbacks can be brought on by using other drugs, stress, tiredness or exercise and usually last for a minute or two. In addition to flashbacks, regular use of hallucinogens may eventually cause:

- ∴ Psychological dependence on hallucinogens
- ∴ Financial, work and social problems

## Withdrawal

Psychological withdrawal symptoms are more common than physical

symptoms, but as hallucinogens are a range of different drugs, it’s not possible to be specific about withdrawal symptoms. People withdrawing from hallucinogens may experience:

- ∴ Cravings
- ∴ Fatigue
- ∴ Irritability
- ∴ Reduced ability to experience pleasure



(7,22,25,37)

# GHB – Gamma Hydroxybutyric Acid



## What is GBH?

GHB (gamma hydroxybutyrate) is a depressant drug. Depressant drugs do not necessarily make you feel depressed. Rather, they slow down the activity of the central nervous system and the messages going between the brain and the body.

## Common Names

GHB is also known as G, fantasy, grievous bodily harm or GBH, liquid ecstasy, liquid E, liquid X, salty water, Georgia Home Boy, soap, scoop, cherry meth, blue nitro and Vitamin G.

## Effects of GBH

The effects of any drug vary from person to person. How they affect a person depends on many things including their size, weight and health, whether they are accustomed to taking the drug, whether other drugs are present in their body, and the amount taken. There is no safe level of drug use. Use of any drug always carries some risk and can produce unwanted side effects.

## Low to Moderate doses

The effects of GHB may be felt 15 to 20 minutes after it's taken and will last for approximately three to four hours. Some of the effects may include:

- ∴ Feelings of euphoria
- ∴ Increased sex drive
- ∴ Lowered inhibitions
- ∴ Memory lapses
- ∴ Drowsiness
- ∴ Clumsiness.

## Higher Doses

It is very easy to take too much GHB because it is a very concentrated liquid. If GHB is taken with other depressant drugs such as benzodiazepines or alcohol, the chances of overdosing are increased. Large amounts of GHB or a strong batch may produce the following effects:

- ∴ Vomiting
- ∴ Sweating
- ∴ Irregular or shallow breathing
- ∴ Confusion, irritation and agitation
- ∴ Hallucinations

- ∴ Blackouts and memory loss
- ∴ Unconsciousness that can last for three to four hours
- ∴ Seizures and death.

## Long Term Usage

Little is known about the long-term effects of GHB use. However, it is known that regular use can lead to tolerance and dependence.

## Withdrawal

If a dependent person stops taking GHB, they may experience withdrawal symptoms. People may experience withdrawal symptoms about 12 hours after the last dose, which can continue for about 15 days. Withdrawal symptoms may include:

- ∴ confusion, anxiety and paranoia
- ∴ feelings of doom
- ∴ restless sleep
- ∴ muscle cramps and tremors
- ∴ hallucinations
- ∴ Rapid heartbeat.

# MANAGEMENT



(6,25,27,37).

# BENZODIAZEPINES



## What are Benzodiazepines?

Benzodiazepines (pronounced benzoh-die-az-a-pins) are depressant drugs. This means that they slow the activity of the central nervous system and the messages going between the brain and the body. They do not necessarily make a person feel depressed. Other depressants include alcohol, cannabis and heroin. Benzodiazepines, also known as minor tranquillisers, are most commonly prescribed by doctors to relieve stress and anxiety, and to help people sleep.

## Common Names

Benzodiazepines are known by their chemical (generic) name or their brand name. In each case the drug is exactly the same, usually made by different companies. Some common benzodiazepines include:

Generic name Brand name

- ∴ Diazepam
  - Ducene® and Valium®
- ∴ Oxazepam
  - Alepam®, Murelax® and Serepax®
- ∴ Nitrazepam
  - Alodorm® and Mogadon®
- ∴ Temazepam
  - Euhypnos® and Normison®

Benzodiazepines are also sometimes referred to as benzos,

tranx, sleepers, downers, pills, serras (Serepax®), moggies (Mogadon®) or normies (Normison®).

## Effects of Benzodiazepines

The effects of any drug vary from person to person. How they affect a person depends on many things including their size, weight and health, whether they are accustomed to taking the drug, whether other drugs are present in their body, and the amount taken. There is no safe level of drug use. Use of any drug always carries some risk and can produce unwanted side effects.

## Low to Moderate doses

The effects of benzodiazepines may be felt within an hour and, depending on whether they are short, intermediate or long acting, the effects can last from two and a half hours to a week. Some of the effects that may be experienced include:

- ∴ depression
- ∴ confusion
- ∴ feelings of isolation or euphoria
- ∴ impaired thinking and memory loss
- ∴ headache
- ∴ drowsiness, sleepiness and fatigue
- ∴ dry mouth
- ∴ slurred speech or stuttering
- ∴ double or blurred vision

- ∴ impaired coordination,
- ∴ dizziness and tremors,
- ∴ increased risk of accidents and falling over
- ∴ nausea and loss of appetite
- ∴ Vomiting, diarrhoea and constipation.

## Higher Doses

Higher doses of benzodiazepines can result in drowsiness, over-sedation and sleep. They may produce an effect similar to drinking a large amount of alcohol. Other effects can include jitteriness, excitability, mood swings and aggressive behaviour.

## Very High Doses

A very high dose of benzodiazepines can cause:

- ∴ slow, shallow breathing
- ∴ unconsciousness or coma
- ∴ death (more likely when taken with another drug such as alcohol).

## Long Term Usage

Some of the long-term effects include:

- ∴ Impaired thinking or memory loss
- ∴ Weakness, lethargy and lack of motivation
- ∴ Headaches
- ∴ Drowsiness, sleepiness and fatigue
- ∴ Nausea.

# Management



(20,23,27,37).

# INHALANTS



## What are Inhalants?

Inhalants are a range of products which, when vaporised and inhaled, may cause the person to feel intoxicated or 'high'. Many of the products used as inhalants are known as 'volatile substances' because they include aerosol and gas fuels, as well as glues and other forms of solvents. Like alcohol, inhalants are depressants. This does not mean they make the person feel depressed. Rather, they slow down the activity between the brain and the body.

## Common Names

**Substances:** glue, gas, sniff, huff, poppers.

**Methods:** chroming, spraying, bagging, huffing, nanging, popping.

## Effects of Inhalants

Effects vary from person to person. They will depend on the size, weight and health of the person using the inhalant, the type and quantity of the substance used, and the method of use.

The effects of inhalants may start to be felt immediately and can last for up to 45 minutes. A sustained 'high' may be achieved by repeated use. There is no safe level of drug use. Use of any drug always carries some risk

and can produce unwanted side effects.

## Low to Moderate doses

Small amounts of inhalants can affect a person quickly due to their rapid entry into the bloodstream through the lungs. Some of the immediate and short-term effects include:

- ∴ feeling 'high' with less inhibitions
- ∴ mood change and increased confidence, which can lead to risky behaviour
- ∴ excitement, sometimes quickly followed by drowsiness
- ∴ sneezing, coughing, glazed eyes and a runny nose
- ∴ nausea and diarrhoea
- ∴ unpleasant breath
- ∴ nosebleeds, bloodshot eyes and sores around the nose and mouth
- ∴ hallucinations
- ∴ Blackouts, convulsions and coma.

After-effects, such as hangovers and headaches, can last for several days and may occur after the immediate effects have passed.

## Higher Doses

If large amounts of inhalants are used, the person may become disoriented and lose their coordination. Other effects can

include visual distortions and passing out.

## Short term use

Some people who sniff glue have been admitted to hospital unable to control their movements or speak properly, and having convulsions. Some people also experience problems with their breathing. Most of these symptoms usually subside within a few hours and rarely cause permanent damage.

## Long Term Effects

The long-term effects of inhalant use can include:

**Appearance:** paleness, tremors, weight loss, tiredness, chapped lips (unusually thirsty).

Some inhalants affect the production of blood and can cause anaemia.

Inhalants (chroming in particular) can also cause eye problems.

Blood vessels can burst in the eyes, making them completely red and eventually leading to blindness.

**Brain damage:** A build-up of chemicals (such as the lead in petrol) in the body can cause damage to the brain, nervous system, kidneys and liver, and can irritate the lining of the

stomach and intestines. Prolonged and heavy use can cause a coma, breathing problems, irregular heart beat and seizures.

**Impaired thinking:** forgetfulness and confusion.

**Psychological impairment:** irritability, hostile nature, depression and feelings of persecution.

### Permanent Effects

Most long-term effects are not permanent and can be reversed if inhalant use is stopped.

However, inhalation of cleaning products, correction fluid and aerosol sprays can cause permanent damage.

Permanent brain damage is rare, but can occur if the person uses inhalants for a long period of time. Drinking alcohol and using inhalants can further increase the damage to the body.

A small number of people have died from using inhalants.

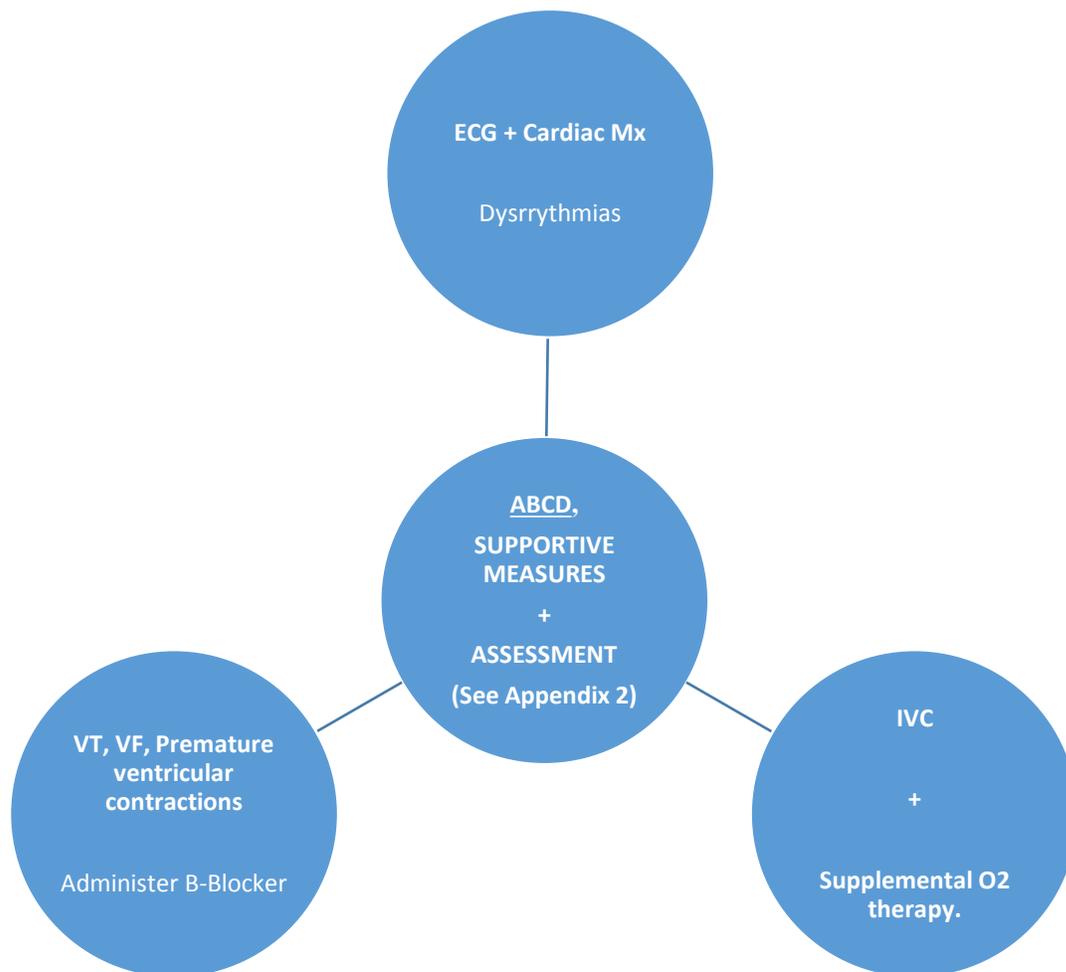
The main danger comes from accidents when intoxicated, such as

suffocation by the plastic bags used to inhale, choking on vomit when unconscious, and reckless behaviour. Although rare, 'sudden sniffing death' has also been known to follow the use of some inhalants.

### Withdrawal

Abruptly stopping use can cause withdrawal symptoms such as depression, anxiety, loss of appetite, irritation, aggressive behaviour, dizziness, tremors and nausea.

## Management



(27,37)

# CANNABINOIDS



## What are Cannabinoids?

Synthetic cannabinoids are marketed under brand names such as 'Kronic', 'Spice', and 'K2'. They have been freely available for purchase online since 2004.

The products are often sold as herbal incense but, when analysed, some have been found to include synthetic cannabinoids that are added to produce a psychoactive effect. This fact sheet outlines what is known about synthetic cannabinoids, including their effects, potential harms and legal status.

## Types of Synthetic Cannabinoids

The chemical structure of synthetic cannabinoids is different to THC (the active component of cannabis) however they both act on the cannabinoid system in the brain producing similar effects. Synthetic cannabinoids are usually sold combined with herbs and aim to mimic the effects of cannabis. In their original state, synthetic cannabinoids are a liquid however they usually look like dried herbs when sold. They are also occasionally sold as powders. They are most commonly smoked and sometimes drunk as a tea.

'Spice' was the earliest in a series of synthetic cannabinoids sold in many European countries. Since then a number of similar products have been developed, such as 'Kronic', 'Northern

Lights', 'K2', 'Zeus', 'Puff', 'Tai High', 'Aroma' and 'Magic Dragon'.

## Effects of Synthetic Cannabinoids

Many synthetic cannabinoids have only recently been developed, so there is very limited information available about their short and long term effects.

Reported effects of synthetic cannabinoids include:

- ∴ A similar effect to smoking cannabis
- ∴ Disconnection from thoughts, feelings, memories and sense of identity (dissociative state)
- ∴ A fast and irregular heartbeat
- ∴ Relaxation
- ∴ Euphoria
- ∴ A rapid pulse rate
- ∴ Racing thoughts
- ∴ Delayed reaction time
- ∴ Dry mouth
- ∴ Lowering of inhibitions
- ∴ Dizziness
- ∴ Agitation
- ∴ Paranoia.

Reports emerging from the United States indicate that people are increasingly experiencing toxic effects from using synthetic cannabinoids, including:

- ∴ A rapid heart rate
- ∴ Hypertension
- ∴ Tachypnoea (rapid breathing)
- ∴ Chest pain
- ∴ Heart palpitations
- ∴ Hallucinations

∴ Racing thoughts

∴ Seizures.

These reports also suggest that the toxic symptoms last for three to four hours, with no adverse effects persisting beyond this time frame. There is concern however regarding serious acute and long-term toxicities.

## Withdrawal

It has been reported that some people who use synthetic cannabinoids heavily for several months before ceasing use experience a withdrawal syndrome.

Some of the reported withdrawal symptoms include:

- ∴ paranoia
- ∴ anxiety
- ∴ panic attacks (even when sober)
- ∴ severe memory problems
- ∴ difficulty concentrating
- ∴ severe confusion or disorientation
- ∴ fear of dying
- ∴ tachycardia (rapid heartbeat)
- ∴ insomnia
- ∴ difficulty breathing
- ∴ constipation
- ∴ nausea
- ∴ difficulty eating
- ∴ Weight loss

# PERFORMANCE AND IMAGE ENHANCING DRUGS (PIEDS)



## What are PIEDS?

Performance and image enhancing drugs (PIEDs) are substances taken by people with the intention of improving their physical appearance and to enhance their sporting performance.

## Types of PIEDS

### **Anabolic steroids – 'roids, gear, juice**

Anabolic-androgenic steroids are derived from testosterone and can be taken as an injection or as a tablet. Steroids are used due to their anabolic effects that assist in the growth and repair of muscle tissue.

### **Peptides**

Peptides stimulate the release of human growth hormone, which has an important role in muscle and bone growth. Peptides have become increasingly popular among professional and amateur athletes as they are hard to detect due to how quickly they are absorbed by the body.

### **Hormones**

Hormones are chemicals released by the body. For example, the pituitary gland naturally releases growth hormone which tells bones and muscles to grow and repair. There are numerous artificial hormones and hormone stimulating drugs in the PIEDs market. These include:

- ∴ Growth hormones like AOD-9604, which has fat burning properties and is used by athletes to increase power to- weight ratios. This substance is a World Anti-Doping Agency (WADA) prohibited substance.
- ∴ Selective Androgen Receptor Modules (SARMs) appear to only act on anabolic receptors that cause tissue growth. These are classed as a prohibited drug by WADA.
- ∴ Insulin-like growth factors (IGF-1) are a hormone produced by the liver, necessary for cell growth in the body. It is used for muscle growth and the development of cartilage and bone.
- ∴ Mechano growth factor (MGF) is derived from IGF-1 and helps with tissue repair and adaptation. It is used mostly by bodybuilders and is on the WADA prohibited list.

## Harms

The harms associated with PIEDs, depends on the type of drug being used: different categories of drugs have different harms, though there are a few shared harms.

When injected, PIEDs have the additional harms associated with

other injecting drug use, including infection, transmission of disease through needle sharing and other problems caused by incorrect injecting technique.

People who use steroids should be aware of a number of negative physical, psychological and behavioural side effects including:

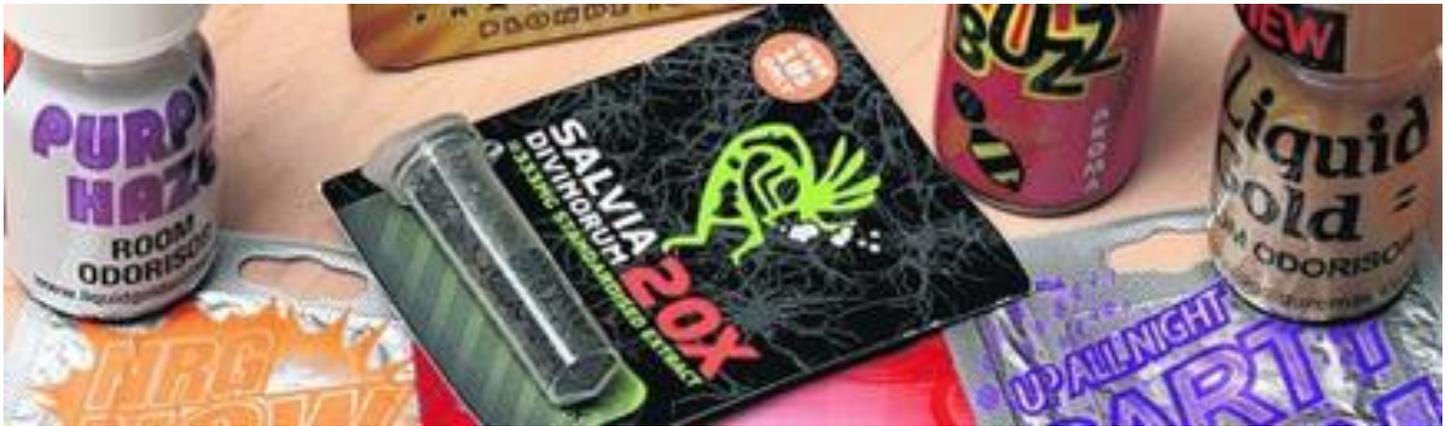
- ∴ Acne
- ∴ High blood pressure
- ∴ Liver and heart problems
- ∴ Gynaecomastia (growth of breast tissue)
- ∴ Hair loss
- ∴ Increased aggression and irritability ('roid rage')
- ∴ Depression
- ∴ Shrinking testicles and prostate problems.

Reported side effects of peptides and hormones include:

- ∴ Water retention
- ∴ Numbness of the hands and feet
- ∴ Increased tiredness.

As a number of synthetic peptides hormones are experimental or not yet approved for human use, it is difficult to pinpoint the specific harms they may cause. It is important to note that many of these drugs do have legitimate, medical uses when they are prescribed and supervised by a medical professional.

# SYNTHETICS OR NEW PSYCHOACTIVE SUBSTANCES (NPS)



## What are NPS?

New psychoactive substances (NPS) is a general term for drugs that are designed to produce similar effects to common illicit drugs such as cannabis, cocaine and ecstasy.

Manufacturers of these drugs use new chemicals to replace those that are banned and are constantly changing the chemical structure of the drugs to stay ahead of the law. NPS are often also referred to as synthetic drugs, legal highs, herbal highs, party pills, synthetic cocaine, synthetic cannabis, herbal ecstasy, bath salts, plant fertiliser, herbal incense, new and emerging drugs (NEDs), drug analogues and research chemicals. These products can sometimes be marked 'not for human consumption'.

## Are they safer than established illicit drugs?

This is one of the biggest misconceptions about NPS. Just because they are advertised as legal, doesn't mean they are safe. Given how rapidly new drugs are emerging, it is difficult to know the common effects of these drugs and what dose causes what effects.

NPS do not come with a recommended dosage printed on the

label. They are unregulated and untested. Given the chemicals in these drugs are constantly changing to stay ahead of the law, it's possible to receive a very different product from batch to batch, even if the packaging and name are the same.

Although there is little known about the harm potential of NPS, there is mounting evidence that synthetic cannabis is more harmful than cannabis. There is potentially an increased possibility of it causing psychotic symptoms and possibly seizures.

## Are they Legal

The laws surrounding NPS are complex and differ between states and between state and federal law. This means that a drug may be illegal to import (including to buy from another country over the internet) under federal law, but may be legal to possess. However, although it may be legal to possess in one state, it may be illegal in another.

These laws are also constantly changing, so a drug that was legal to possess yesterday, could be banned tomorrow. In Queensland, New South Wales, and South Australia there is now a 'blanket ban' on possessing or selling any substance

that has a psychoactive effect other than alcohol, tobacco and food. Many drugs that were previously sold as legal are now controlled under various state and federal laws including: mephedrone, BZP, GBL and some synthetic cannabinoids (such as Kronik).

## Harms

It's very hard to determine the effects of NPS, even if they've been taken before, as these products are constantly changing. Activities like driving, swimming and operating machinery while under the influence should therefore be avoided.

The packaging of these drugs is often misleading and doesn't list all the ingredients or the correct amounts. This can make it easy to overdose. Many NPS contain a range of fillers and numbing agents that could lead to health problems, particularly if injected.

Given caffeine is contained in many products, sometimes in high quantities, additional caffeine consumption (i.e. through coffee) could lead to an overdose.

Most deaths from these drugs, such as suicides, have involved mental health conditions, so people with these conditions could be more at risk of harm.

## METHOD OF TRIAGE.

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∴ Safety of yourself and patient considered above all.

∴ Assessment:

- ABCD
- Chief complaint
- Appearance
- History – Medical, drug
- Co-morbidities

∴ Differentiate predictors of poor outcome for the patient.

∴ Identify risk of physiological instability.

### Australasian Triage Scale (2000)

Resuscitation	1	Immediately
Emergency	2	< 10 minutes
Urgent	3	< 30 minutes
Semi-urgent	4	< 60 minutes
Non-urgent	5	< 120 minutes

(1,15)

## EXAMPLES OF TRIAGE CATEGORIES FOR ILLICIT DRUG PRESENTATIONS

Table adapted from combination of the adult physiological predictors and mental health triage tool in the NSW Health Department Triage Guidelines (2000).

Triage category	Description	Presentation
Category 1- Immediate	Condition is immediately life threatening. Definite danger to self or others. Severe behavioural disturbance with immediate threat of violence.	A = obstructed B = Distress/absent/ Hypoventilation C = absent, uncontrolled haemorrhage D = GCS < 9 Violent Possession of weapon Extreme agitated/ restless/ distorted behaviour Expressed self harm / suicidal ideations
Category 2 – 10 minutes	Acute risk of deterioration requires intervention within 10 minutes. Probable risk of danger to self and others. Requires physical restraints. Severe behavioural disturbance.	A = Patent B = moderate distress C = moderate compromise D = GCS 9-12 Extreme agitation/ restlessness/ delusions/ hallucinations Confusion Risk of absconding/ unable to wait safely. Treat of harm to self and others.
Category 3 – 30 minutes.	Mild to moderate haemodynamic compromise requiring intervention within 30 minutes Moderate behaviour disturbance. Distressed.	A = patent B = mild distress C = mild compromise D = GCS > 12 Agitated/ confused/ intrusive/ not likely to wait. Elevated/irritable mood. Hallucinations/ paranoia/ thought disturbances. Depressed/ uncommunicative/ withdrawn.
Category 4 – 60 minutes	Mild haemodynamic compromise requiring intervention within 60 minutes. Moderate distress	A = patent B = No compromise C = no compromise D = Normal GCS Irritable without aggression/ agitation/ restlessness. Cooperative, able to give coherent history. Willing to wait.
Category 5 – 120 minutes	Clinically well patient No haemodynamic compromise or potential for deterioration. No danger to self or others.	A = Patent B = No compromise C = No compromise D = Normal GCS Cooperative. Communicative. Compliant. Minor adverse effect of medication.

(1, 15)

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## APPENDIX 1 -Glossary of Terms

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**Bruxism** – Compulsive, unconscious grinding or clenching of teeth (1, p233).

**Dopamine** – Neurochemical involved in the regulation of movement, memory, motivational behaviour and cognitive processes. Decreased dopamine has been linked to depression, anxiety, dyskinesia and parkinsons disease. Increased dopamine has been linked with schizophrenia, hallucinations, thought disturbances and mania. Dopamine is the main neurotransmitter involved in the pleasure pathways and is also the primary chemical triggered in psychostimulant use reinforcing it's "pleasurable" effects (3).

**Flashbacks** – Described as times when you feel the effects of the drug again and may happen days, weeks or even years after taking the drug. Flashbacks can include visual hallucinations and other effects. They can happen without warning, last for a minute or two and can be disturbing. May be triggered by using other drugs or by stress, tiredness or physical exercise. Regular users are more likely to experience flashbacks than people who only use the drug periodically (23)

**Intoxication** – When a patients intake exceeds their tolerance levels (21).

**Miosis** – Constriction of the pupils (25).

**Mydriasis** – Dilation of the pupils (25).

**Noradrenaline** – Acts on the sympathetic nervous system, mediating cardiovascular effects, arousal, concentration, attention, learning and memory (3).

**Overdose** – State that occurs when a patient ingests a quantity of a drug that exceeds their tolerance and produces physical and behavioural abnormalities (21).

**Serotonin** – Involved in modulating moods, sleep, appetite, sexual behaviour and hormone production. It is also involved in functions such as pulse, respirations, thermoregulation, blood pressure regulation and the pleasure response (19,21). Decreased serotonin has been linked to depression, fatigue, anorexia and anxiety. Increased serotonin has been linked to hallucinations, amnia and serotonin syndrome. Serotonin syndrome entails hypertension, tachycardia, hyperthermia, nausea, muscle rigidity, tremors and ataxia (21).

**Serotonin toxicity** – There is a growing incidence of serotonin toxicity in relation to psychostimulants particularly MDMA. Serotonin syndrome refers to the state caused by excess serotonin within the central nervous system (15,19). Excess levels of serotonin can lead to muscle rigidity, coma, seizures, hyper or hypotension hyperthermia, rhabdomyolysis with hyperkalaemia acidosis and renal failure. Management includes rapid cooling, paralysis and intubation with mechanical ventilation for respiratory compromise. Intravenous fluids are indicated for hypotension, rhabdomyolysis or dehydration (Urine output aimed at 1.5-2 mL/Kg/Hr). If toxicity has been diagnosed and anti-cholinergic agents not ingested 5-HT<sub>2</sub> antagonists (Olanzapine) may be indicated (17,19).

**Withdrawal** - Describes a range of physical and psychological symptoms that occur when a person stops or substantially reduces substance use if they have been using for a long period or at high doses. Signs and symptoms are the opposite of the acute effects of the drug. Withdrawal symptoms depend on the individual's level of tolerance, and other illnesses in conjunction with psychosocial environment (24).

## APPENDIX 2 Management: ABCD and Supportive Measures

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The effects of illicit drug vary significantly from one person to another and are based on factors including; body chemistry, age, gender, physical health, dose, form of materials and the context in which they are administered. Effects of illicit drug include intoxication, overdose and withdrawal (See Appendix 1) and are an immediate health issue (21).

It is important to note that some diagnoses can be confused with the effects of intoxication or withdrawal including infection, hypoxia, hypoglycemia, head injury, CVA, liver disease, psychosis and drug overdose. The role of the emergency department is to provide prompt assessment and diagnosis and rapid, safe management of symptoms including acute behavioural disturbances and medical complications including predication of further complications and adverse effects of illicit drugs (21). Supportive measures can be initiated at this time with regards to specific symptoms such as hypoxia, hypoglycemia and seizures until a definitive diagnosis and treatment can be instigated.

### Assessment/ED management:

Initial assessment includes:

- ∴ **A**irway
- ∴ **B**reathing
- ∴ **C**irculation
- ∴ **D**isability

**A -** Examine airway patency and expected maintenance of patency.

Examine Level of consciousness

Intubation may be required if – GCS < 10

Rapid deterioration of consciousness

Post ingestion

Diminished gag reflex

Vomiting in conjunction with reduced

LOC

Vomiting with corrosive ingestion

**B -** Examine rate and depth of breathing

Oxygen saturations in conjunction with Arterial blood gas (ABG) analysis

Administer supplemental oxygen

**C -** Cardiac monitoring

Monitor heart rate and blood pressure

Monitor peripheral perfusion and hydration level

Insert intravenous cannula (IVC) large bore

Temperature

Maintain circulation – administer crystalloid solution, dopamine or if volume not restored insert pulmonary artery catheter.

**D -** Associated severe injuries (Possibly from self harm, falls or prolonged Immobilisation

(21, 25,27, 30,37).

As in any assessment situation continual re-assessment and evaluation of treatments initiated is paramount.

Once **ABCD** patency is secured supportive measures can be initiated if instigated. Treat coma, seizures and commence gastric decontamination if indicated (See management of specific drugs)(25,37).

A systematic assessment can now be commenced including indicators of risk, past medical history, psychosocial history, physical signs and symptoms, mental health status and pathology results.

**Drug history:** Type, time of last ingestion, amount ingested, concomitant drug/alcohol usage, frequency of usage (21, 27, 30).

If the patient is either unable (due to decreased GCS, intoxication) or unwilling to cooperate in the assessment process it can become difficult for the health care provider to establish a cause for symptoms. The patient has a right to refuse although health care providers are obliged to ask about substance abuse and document the patient's response if indicated (30).

Signs of drug use administration include puncture marks, cellulites, phlebitis, skin abscesses, erosion/irritation around nostrils/septum, irritation/rash around nose or mouth, dilated pupils, ataxia, possibly numerous old injuries, jaundice, and general physical health problems (30).

**Physical Assessment/Examination:** Vital signs, cardiac monitoring, fluid balance status, respiratory status, cardiovascular status, neurological status including GCS, temperature, blood sugar level and any associated injuries (Therapeutic guidelines). Psychoactive drugs affect cognition, emotions and behaviour, thus assessment should include a mental status examination (MSE), LOC, orientation, memory, judgement, affect, speech, comprehension and abnormality of perception (27,37).

**Medical history:** Presence of concomitant physical illnesses, presence of any physical injury, previous self harm, psychiatric illness, drug use including alcohol, precipitant for overdose (27,37).

**Investigations:**

Blood tests- Serum electrolytes, BSL, LFT, creatinine and possibly

Drug screen if indicated

ECG and continual cardiac monitoring

Chest x-ray

Urine Analysis and drug screen (confirmation of drug abuse)

CT brain in the context of severe headache or altered states of

Consciousness.

(27, 37).

**Management of behavioural escalations:**

Aims to reduce the risk of harm to both patients and staff

Police/security presence may be necessary

Calming de-escalating communication strategies

Non-judgmental care

Sedation may be necessary.

It can be difficult to differentiate between behavioural disturbances secondary to intoxication or an exacerbation of a psychotic disorder. Behavioural control allows for re-assessment in a safe environment.

(27).

## APPENDIX 3 Communication

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Illicit drug users presenting to the emergency department are often agitated, irrational, impulsive, paranoid and psychotic (sometimes displaying uncontrolled aggressive, violent behaviour). Communication breakdowns and the formation of sub therapeutic relationships as a result form a barrier to the management of these patients. A recognition that illicit drug use in the emergency department is not a moral issue but a health issue is paramount (27, 28).

### Tips for communication:

- ∴ Be non-judgmental
- ∴ Show concern without rejecting the patient
- ∴ Empathise. Build a rapport and sense of trust
- ∴ Use calming, de-escalating strategies
- ∴ Be respectful
- ∴ Be honest and straightforward about who you are, what you need to know and why.
- ∴ Speak directly to the patients concerns
- ∴ Be aware of cultural issues. Liaison with culturally sensitive liaison officer, health workers or interpreters may be beneficial.
- ∴ (27).

### Harm minimization:

The NSW Health Strategy to minimize harm includes addressing substance use at each contact point and increasing education available. It aims to reduce/limit harm related to substance use within the community (30).

Early intervention has been reported as the most effective strategy for the prevention of potential complications of substance use. The emergency department is often the first point of contact for patients with psychoactive substance users and a rise in the skills and awareness of substance use issues will help facilitate a reduction of harm in the community (27).

Early intervention can occur at any stage during the health care providers contact with the patient and should include an assessment to establish substance use and potential health complications as a result and the provision of education regarding substance use and potential health issues and referral services available for the patient (27).

Referral services available are outlined in Appendix 6.

## APPENDIX 4 Sedation guidelines and Management

Please refer to <http://www.wikitox.org> for up-to-date information regarding toxicology management.

### ORAL BENZODIAZEPINE (DIAZEPAM)

	DOSE	TIME GIVEN
<i>Dose 1</i>	10-20mg PO diazepam	
<i>Dose 2</i>	10mg PO diazepam	30 mins post initial dose
<i>Dose 3</i>	10mg PO diazepam	30 mins post previous dose
<i>Dose 4</i>	10 mg PO diazepam	30 mins post previous dose
<i>Dose 5</i>	10 mg PO diazepam	30 mins post previous dose
<i>Dose 6</i>	10 mg PO diazepam	30 mins post previous dose
<i>TOTAL:</i> 60 mg (Do not exceed 120mg in 24 hrs)	<i>Failure –</i> Consider alternate regime	<i>AIM FOR BEHAVIOURAL CONTROL/ ROUSABLE DROWSINESS.</i>

### IV BENZODIAZEPINE (DIAZEPAM)

	DOSE	TIME GIVEN
<i>Dose 1</i>	2.5-5mg IV	
<i>Dose 2</i>	5-10mg IV	10 mins post initial dose
<i>Dose 3</i>	5-10mg IV	10 mins post previous dose
<i>Dose 4</i>	5-10mg IV	10 mins post previous dose
<i>Dose 5</i>	5-10mg IV	10 mins post previous dose
<i>Dose 6</i>	5-10mg IV	10 mins post previous dose
<i>TOTAL –</i> 60mg (Do not exceed 120mg in 24 hrs)	<i>Failure –</i> Consider alternate regime Droperidol 2.5-5mg IV/IM Olanzapine 10mg IV	<i>AIM FOR BEHAVIOURAL CONTROL/ ROUSABLE DROWSINESS</i>

(21).

## IM MIDAZOLAM

	DOSE	TIME GIVEN
<i>Dose 1</i>	5mg IM	
<i>Dose 2</i>	10mg IM 2.5-5mg IV	10 mins post initial dose
<i>Dose 3</i>	10mg IM 2.5-5mg IV	10 mins post previous dose
<i>Dose 4</i>	10mg IM 2.5-5mg IV	10 mins post previous dose
<i>TOTAL –</i>	<i>Failure –</i>	<i>AIM FOR BEHAVIOURAL</i>
<i>Do not exceed 25mg in</i>	<i>Consider alternate regime</i>	<i>CONTROL/ ROUSABLE</i>
<i>24 hrs</i>	<i>Droperidol 2.5-5mg IV/IM</i> <i>Olanzapine 10mg IV</i>	<i>DROWSINESS</i>

(21).

### Post Sedation Management

Initially continuous physical and visual monitoring for 10 minutes.

- ∴ Monitor 4hrs
- ∴ 10 minutely for 30 minutes
- ∴ 15 minutely for 30 minutes
- ∴ 30 minutely for 60 minutes
- ∴ 60 minutely for 4 hours or until awake.

Monitoring includes:

- ∴ Airway
- ∴ Colour
- ∴ O<sub>2</sub> saturations
- ∴ ET CO<sub>2</sub>
- ∴ RR
- ∴ BP
- ∴ HR
- ∴ Temp
- ∴ GCS
- ∴ BSL

(21).

## APPENDIX 5 Antidotes and other medications

INDICATION	SPECIFIC DRUG/ANTIDOTE
Benzodiazepines	<i>Flumazenil (rare)</i> <i>Slow IV 0.2mg (30 – 60 secs)</i> <i>Repeat 0.5mg increment up to 3-5 mg</i>
Opioids	<i>Naloxone</i> <i>0.4– 2 mg IV (Duration 2-3hrs)</i>
Unidentified ingested substance	<i>Activated charcoal</i> <i>Administer as soon as possible post PO ingestion.</i> <i>Initial or single dose based on activated charcoal 1 g/kg bodyweight (to a maximum dose of 50 g) in 120 - 240 ml of H<sub>2</sub>O.</i> <i>Followed by subsequent doses of suspension every two to six hours, at a rate not less than 12.5 g/hour if required.</i>
GHB induced Bradycardia	<i>Atropine.</i> <i>0.4 to 0.6 mg intravenously, intramuscularly or subcutaneously to a total of 2 mg.</i>
Hypotension (unresponsive to warming and IVF)	<i>Dopamine</i> <i>Begin administration of diluted solution at doses of 1 to 5 mcg/kg/minute.</i> <i>Dose titrated to desired haemodynamic response, can be increased by 1-4 mcg/kg/minute at 10-30 minute intervals.</i>
Amatoxin-type cyclopeptide mushrooms	<i>Thioctic acid</i> <i>Penicillin</i> <i>Corticosteroids</i> <i>Activated Charcoal (See above)</i>
Gyromitrin type mushrooms	<i>Pyridoxine</i> <i>25mg/Kg IV</i>
Muscarinic type mushrooms	<i>Atropine</i> <i>0.005-0.01Mg/Kg IV</i> <i>Repeat if necessary</i>
Anticholinergic type mushrooms	<i>Physostigmine</i> <i>0.5-1mg IV</i> <i>Benzodiazepines</i> <i>1-2mg IV</i>
Gastrointestinal irritant type mushrooms	<i>Antiemetics</i> <i>IV or PO fluids</i>
Disulfiram type mushrooms	<i>Avoid alcohol</i> <i>In event – position supine, Fluids</i>
Hallucinogenic type mushrooms	<i>Quiet atmosphere +/-Sedation</i> <i>(See Appendix 4)</i>
Cortinarius type mushrooms	<i>Supportive care +/- hemodialysis for renal failure.</i>

(14,25,36)

Please refer to <http://www.wikitox.org> for up-to-date information regarding toxicology management.

## APPENDIX 6 Referral Services.

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- ∴ Alcohol and Drug Information Service (ADIS) – 24 hour Hotline
  - Tel (02) 9361 8000
  - Toll Free: 1800 422 599
  
- ∴ NSW Users and AIDS Association (NUAA)
  - Tel: (02) 8354 7300
  - Toll Free: 1800 644 413
  
- ∴ John Hunter Hospital Drug and Alcohol Unit
  - Medical, Nursing and Counselling staff available via 2974
  - (Advisory Service available 0900 – 1730hrs weekdays and until 2300hrs Tuesday-Thursday)
  
- ∴ Detoxification units at James Fletcher Hospital
  - Mater hospital, Lorna House -Inpatient detoxification for polydrug and
  - Illicit drug users, management of complicated withdrawal States, outpatient after-care services.
  - Tel: 4921 1825
  - Tel: 4921 1283 (Accepts admissions 24/7)
  
- ∴ Drug and Alcohol Nurse contactable via Mater switch
  - Tel: 4921 1211
  
- ∴ Morriset Hospital, Ward 13 -Polydrug and methadone detoxification.
  - 3 month rehabilitation programme for alcohol and other drug abusers.
  - Tel: 4973 0222 (Admission via James Fletcher Hospital 24/7)
  
- ∴ Alcohol and other Drug Services - Reduce harm of alcohol and other drug abuse and promote improvement in mental and physical health in individuals and the community.
  - Central Coast
    - Tel: (02) 4356 9412
  
  - Gosford
    - Tel: (02) 4320 2637
  
- ∴ Drug and Alcohol Community Counsellor – Individual youth and family
  - Counseling, referrals, education and skills training for health and welfare providers, Information and education resources.
  
  - Cessnock Community Health
    - Tel: (02) 4991 0501

- East Maitland Community Health
- Tel: (02) 4931 2000
  
- East Newcastle Community Health
- Tel: (02) 4925 7800
  
- Karuah Community Health
- Tel: (02) 4923 2060
  
- Nelson Bay Polyclinic
- Tel: (02) 4984 0730
  
- Raymond Terrace Community Health
- Tel: (02) 4987 2078
  
- Singleton Community Health
- Tel: (02) 6571 9248
  
- Toronto Poly Clinic
- Tel: (02) 4935 8100
  
- Western Newcastle Community Health
- Tel: (02) 4924 6100
  
- Windale Community Health
- Tel: (02) 4944 5300

∴ Family Drug Support

- Tel: (02)9818 6166
- Tol Free: 1300 368 186