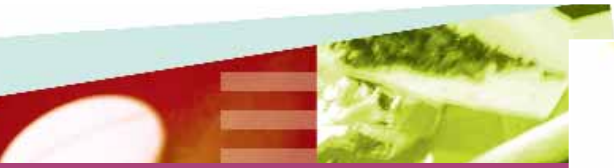
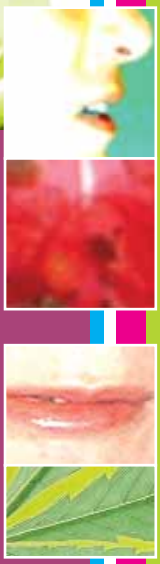
THE SALVATION ARMY

DANGERS OF DRUGS

INFORMATION • WARNINGS • HEALTHY ATTITUDES

DANGER → DRUGS





INTRODUCTION – **THE BRAIN**

When people experiment with drugs, they are taking risks with the most complex and advanced computer on earth – their brain.

Every second of the day, our brain is making its own mood-altering chemicals and consuming them. Our thoughts, feelings and actions are affected by the levels of these chemicals – known as neurotransmitters – in the brain.
For example, people with a history of violent behaviour may have lower than usual levels of a neurotransmitter called serotonin, which affects mood.[i]

Drugs, in the smallest of quantities, alter and damage the brain's natural balance of mood-altering chemicals. They drain the brain of vital neurotransmitters.

As Scott and Grice write in *The Great Brain Robbery,* far from providing a short cut to happiness and fun, what drugs may deliver is "a short circuit to the unique brain wiring" that makes you who you are.[ii]

i **Scott T and Grice T** 1997, *The Great Brain Robbery,* Sydney, Allen & Unwin, p. 27
ii Ibid, p.9

CONTENTS

DANGER UP ALCOHOL

AKA > BOOZE, PLONK, GROG, JUICE, TURPS...

WHAT IS ALCOHOL?

Alcohol is a depressant drug, not a stimulant as is often thought. Its effect is to slow down the central nervous system, including the brain.[1]

The active ingredient in alcohol is ethyl alcohol (ethanol), a clear colourless substance that can be produced synthetically or naturally by fermenting fruits, vegetables or grains.

Alcohol is absorbed into the bloodstream from the stomach, and moves to the liver, where it (one standard drink per hour) is broken down into acetaldehyde. Acetaldehyde is a poison which irritates cells and, in strong doses, causes damage to the brain.[2]

WHAT IS A 'HANGOVER'?

A 'hangover' is the name given to the symptoms of acetaldehyde poisoning (a substance created when alcohol is broken down in the body). It's our body's way of warning us of the damage – or poisoning – being caused by excessive use.[3]

ALERT alert

Alcohol is a depressant drug that slows down the nervous system, produced by fermentation of fruits, vegetables or grains.

A 'hangover' describes the symptoms of alcohol poisoning in our body, our body signalling the damage we're doing by drinking to excess.

Drinking too much decreases our ability to absorb important nutrients from food.

NUTRITION

Alcohol makes us less able to break down and absorb important nutrients from our food. Many people who drink to excess are prone to poor nutrition because they tend to choose alcohol over food.[4] As a result, they may have used up their nutrient stores

and be drawing on their own tissues for fuel. Loss of electrolytes and vitamin deficiency are just two of the negative effects.[5]

LIVER DISEASE

The liver processes 90% of the toxic substances in the body.[6] Liver disease resulting from alcohol use is a major cause of illness and death. Fatty liver is the most common problem, this can be treated by abstaining from alcohol. More serious diseases include alcoholic hepatitis, which involves inflammation of the liver; and cirrhosis, which causes scarring of liver tissue. These conditions can be fatal, and there are few choices for treatment.[7]

US research indicates that around 10-35% of heavy drinkers (5-6 standard drinks a day) develop alcoholic hepatitis and 10-20% develop cirrhosis.[8] Alcoholism and alcoholic liver cirrhosis are the cause of around 1,000 deaths in Australia each year, and more than 25,000 hospitalisations.[9]

ALERT

Liver disease resulting from alcohol use is a major cause of illness and death. Even low-risk drinking may be linked with liver disease.

ABOVE, L TO R > A healthy vs alcoholic liver

Usually alcoholic cirrhosis occurs after more than ten years of heavy drinking, but this is not always the case. Some heavy drinkers develop cirrhosis much more quickly simply because their livers are more sensitive to alcohol than others.

The risk of cirrhosis increases the more alcohol is consumed. One study concluded that 54% of unspecified liver cirrhosis in males and 43% in females was related to alcohol.[10]

There is some evidence that even moderate drinking could cause damage to the liver. In women, as few as 2-3 drinks a day have been linked to cirrhosis, and in men, as few as 3-4 drinks per day.[11]

In a 1999 New York study, people who had rich diets supplemented with vitamins and minerals were given an amount of alcohol each day that was less than what is required to cause intoxication. After 18 days, subjects showed an eight-fold increase in liver fat, the precondition of cirrhosis. When you burn alcohol, you are not burning fat.[12]

The alcohol burning reaction causes the liver to produce 5-10 times more of a cancer causing enzyme that causes liver injury.[13]

MENTAL HEALTH

Alcohol misuse is believed to contribute to a number of mental health conditions including alcoholic psychosis, alcohol dependence syndrome and alcohol-related dementia. Long-term heavy drinking is also a risk factor for depression and anxiety.[14]

BRAIN DAMAGE & MEMORY LOSS

With developments in imaging technology, studies have revealed a consistent link between heavy drinking and physical brain damage. The shrinkage of the brain, which exceeded normal shrinkage with age, seemed to be most marked in the part of the brain associated with higher intellectual functions. However, it was also observed in areas associated with memory, coordination and balance.[15]

US studies indicate young people who binge drink could be risking serious damage to their brains and increasing memory loss later in life. Adolescents may be even more vulnerable to brain damage from excessive drinking than older drinkers.[16]

Women face greater memory loss than men. Two recent studies suggest that women tend to develop brain 'shrinkage' and damage to their memory capabilities much faster than men who drink.[17]

Some alcoholics would rather drink than eat, and over time they suffer from a Vitamin B (thiamine) deficiency. Prolonged Vitamin B deficiency causes brain damage known as Korsakoff's syndrome. Victims suffer from apathy, confusion and profound memory impairment.[18]

SEXUAL FUNCTION

When alcohol is broken down in the body, it seems to change the balance of reproductive hormones in men and women. In men, evidence suggests alcohol is toxic to the testes, causing reduced testosterone levels. It may also interfere with normal sperm structure and movement.[19] In a study of normal healthy men who received large amounts of alcohol daily for 4 weeks, testosterone levels declined after only 5 days and continued to fall throughout the study period.[20] Long-term testosterone deficiency may contribute to feminisation in males, such as breast enlargement.[21]

Heavy drinking is linked to brain shrinkage and memory loss. Effects to memory could be worse for young people and women.

Alcohol use seems to affect the normal functioning of sex hormones in both men and women.

DANGERS OF ALCOHOL

alert

Some studies suggest women who drink are at a slightly increased risk of contracting breast cancer.

Moderate drinkers may be at greater risk of stroke than non-drinkers.

Heart disease and high blood pressure have been associated with alcohol abuse.

Chronic, heavy drinking in women may be a factor in causing menstruation to stop, irregular cycles, failure to ovulate and increased risk of spontaneous abortions.[22] Some of these problems were also found in women who would be considered social drinkers, who drank about three drinks a day in a 3-week study. A significant number had abnormal menstrual cycles and a delay or lack of ovulation.[23]

BREAST CANCER

There is some evidence suggesting women may be at increased risk of breast cancer from even moderate amounts of alcohol. A review in 1994 found that one alcoholic drink per day was associated with an 11% increase in the risk of breast cancer compared with non-drinkers.[24] Numerous studies suggest a small (averaging 10%) increased risk. Risk appears to increase as amount increases, yet other studies find no evidence of a link.[25]

OTHER CANCERS

Research has shown a link between alcohol consumption and certain types of cancer, with risk increasing with levels of alcohol consumed. The strongest links relate to cancer of the upper digestive tract (mouth, pharynx, larynx and oesophagus). Less consistent data links alcohol consumption and cancers of the liver and colon.[26, 27]

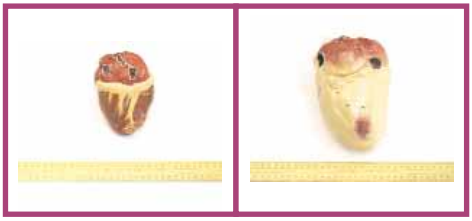
STROKE

A study by Finnish researchers compared the drinking habits of 212 hospitalised stroke patients with 274 patients admitted for other reasons. They found that moderate or heavy drinking was a significant and independent risk factor for strokes in men. Patients who consumed 13-25 drinks in the week prior to admission were at four times higher risk of stroke, compared with non-drinkers.[28]

HEART DISEASE

Alcohol misuse is associated with heart disease and may contribute to high blood pressure, haemorrhagic stroke and heart failure. It is estimated around 11% of male and 6% of female high blood pressure cases can be attributed to drinking too much alcohol.[29]

An Austrian study also found that regular consumption of more than 100mg of alcohol per day (eg. 10 standard drinks) was a risk factor for early development of deposits that clog the arteries.



ABOVE, L TO R > Healthy heart vs alcoholic heart. The heart is enlarged because the muscle has lost its elasticity and is covered with deposits of unhealthy fat.[30]

KIDNEY DISEASE

ABOVE, L TO R > Healthy kidney vs alcoholic kidney. These photographs reveal shrinkage and scarring to the kidneys due to parts of the tissue being destroyed through the strain of eliminating alcohol.[31]

BONE STRUCTURE

Alcohol can interfere with calcium and bone metabolism in several ways. Acute alcohol consumption can lead to increased loss of calcium in the urine. Studies in alcoholics have shown that alcohol is directly toxic to bone forming cells.[32]

DEATH

Abuse of alcohol is one of the main causes of preventable death in Australia. During 1997, it is estimated that 3,290 Australians died from injury and disease caused by heavy drinking and that 72,302 were admitted to hospital.[33]

PREGNANCY

Pregnant women who drink large amounts of alcohol may be risking a range of negative effects to the foetus. The most severe include gross abnormalities at the time of birth and foetal alcohol syndrome – including physical abnormalities, slowed growth rates

alert

Heavy drinking during pregnancy is strongly linked with negative effects to the unborn foetus.

and neurological dysfunction with delayed development. The effects of low risk drinking are less obvious, but may include abnormalities and subtle behavioural problems – for example, decreased motor skills and decreased academic achievement.[34]

HEALTH PROBLEMS ARE NOT THE ONLY RISKS!

Quality of life is affected by alcohol use. Some people have sex when they have been drinking and regret it when they sober up. People who have been drinking are more likely to have **unsafe sex** that can result in pregnancy or sexually transmitted diseases.[35]

High blood alcohol levels are a factor in one third of all **road accident deaths.**[36]

The 1996 Women's Safety Australia Survey by the Australian Bureau of Statistics showed that around 40% of physical and sexual **assaults on women** in the past 12 months involved alcohol. A review of **domestic violence** incidents attended by NSW Police in 1991 also reported 40% as alcohol-related.[37]

It has been estimated that total **lost production** in the workplace arising from alcohol misuse was $1.7 billion in 1992.

Research has shown that **absentee rates** for high risk drinkers were greater than that for the general population, with 14.7% of high risk drinkers absent from work compared with 8.6% of low risk drinkers.

Alert

Alcohol abuse is linked to a wide range of other problems such as road accidents, domestic and other violence, child abuse, reduced productivity and absenteeism.

If you drink alcohol, it's important to keep within recommended guidelines for safe drinking.

It was estimated that the **economic cost** of alcohol misuse to the Australian community in 1992 totalled $4.7 billion. [38]

HOW MUCH IS TOO MUCH?

One standard drink = alcoholic soda 3/4 of a 330 mL bottle, one nip (30 mL) spirits, 1 small glass wine (100 mL), 1 schooner of low alcohol beer (425 mL), 1 'middie'/ 'pot' regular beer (285 mL).

Recommended levels for low-risk drinking are as follows:

- **For men,** no more than 4 standard drinks a day, and no more than 28 over a week. No more than 6 standard drinks during any one occasional heavy drinking day. At least two alcohol free days a week.

LIGHT BEER	ORDINARY BEER	WINE	SPIRITS	PORT/ SHERRY
				
1 schooner 425 mL 2.7% alcohol	1 middie 285 mL 4.9% alcohol	1 glass 100 mL 12% alcohol	1 nip 30 mL 40% alcohol	1 glass 60 mL 20% alcohol

Note: Medium strength beer contains an average of 3.5% alcohol.
A schooner of medium strength beer is just over one standard drink.

- **Women,** an average of no more than 2 standard drinks a day, and no more than 14 standard drinks in a week. No more than 4 standard drinks in any one occasional heavy drinking day. At least two alcohol free days a week.

Harmful use of alcohol – drinking in excess of the above guidelines – may cause physical or mental damage.

An adult liver can metabolise, or break down, one standard drink an hour (see diagram for standard drink measures). Drinking at a greater rate than this accumulates ethanol in the bloodstream. Nothing can make the liver work faster than its set rate – not coffee, cold showers, exercise, sleep or vomiting. Vomiting only gets rid of alcohol in the stomach that hasn't yet been absorbed into the bloodstream.

Children and teenagers absorb alcohol faster, and metabolise it less efficiently than adults.[39] There is evidence that adolescents may be more vulnerable to brain damage from excessive drinking than older drinkers.[40]

Women also get drunk quicker, may become addicted sooner, may develop alcohol-related problems more quickly, and many die younger than men with similar drinking problems.[41]

DANGERS OF ALCOHOL

alert

Alcohol is addictive, and many people find it difficult to control the amounts they drink. Many choose not to drink alcohol at all.

Around 10% of people drink at dangerous levels. Do you have a problem with alcohol?

MODERATION MAY BE DIFFICULT

Because alcohol is an addictive substance, many people find it difficult to drink moderately.

Non-drinking is always the best option, and for some people it's the only option. Around 1 in 5 Australian adults don't drink at all.

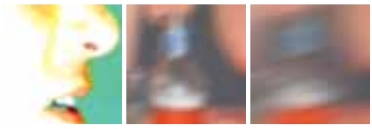
DO YOU HAVE A DRINKING PROBLEM?

Answering 'yes' to some or all of the following points may indicate alcohol dependence:

- Drinking excessive amounts (in excess of guidelines for safe drinking)
- Drinking one type or brand of alcoholic beverage (eg. beer, wine, etc.)
- Drink-seeking behaviour (hanging out with others who drink, only going to events that include drinking, etc.)
- Increased tolerance (drinking increasing amounts to gain same effect)
- Decreased tolerance (drinking decreasing amounts to gain same effect)
- Withdrawal symptoms (getting physical symptoms after going a short time without drinking)
- Drinking to relieve or avoid withdrawal symptoms (such as drinking to 'cure' a hangover, or to stop the shakes)
- Some awareness of craving for alcohol or inability to control drinking habits (whether or not you admit it to others)
- A return to drinking after a period of abstinence (deciding to quit and not being able to follow through).

If you are alcohol-dependent, you will probably require outside help to stop drinking. This could include detoxification, medical treatment, counselling and/or attending a self-help support group.

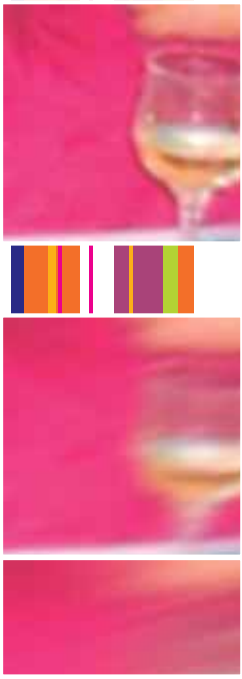
If you are concerned for yourself or someone you know, you may wish to look at a questionnaire put together by Alcoholics Anonymous, on their website: > CLICK HERE



REDUCING HARM

If, having been made aware of the dangers to your health, you still decide to drink alcohol, following are some tips for controlling the amounts you drink in order to reduce harm:

- Quench your thirst with a non alcoholic drink
- Experiment with the wide array of non or low alcohol alternatives available
- Drink slowly. Put your drink down between sips
- Be careful about confusing large serves of alcohol with standard measures – eg. glasses of wine may be much larger than the standard 100 mL
- Try not to get involved in 'shouts', this tends to force you to keep up with the pace of those around you
- Eat before and during drinking
- Avoid salty foods, these make you thirsty
- Don't let people top up your drink until it's finished – it's too easy to lose track of how much you are drinking
- Try alternating alcoholic drinks with non alcoholic drinks
- Drink water between alcoholic drinks
- Don't allow yourself to get bored. Dance or have a game of pool if you're at a pub
- Have alcohol-free days
- Don't be pressured into drinking more than you want to.[42] → A ←



Endnotes

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35 **Drug Info Clearinghouse,** op.cit.

36 **National Alcohol Strategy,** op.cit., p.11

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DANGERS OF → COCAINE

AKA > C, COKE, CRACK, COLA, WHITE DUST, SNOW, BLOW...

WHAT IS COCAINE?

In its pure form, cocaine is a powder extracted from the leaves of the coca bush, mainly found in Bolivia and Peru. Part of a group of drugs called 'stimulants', cocaine speeds up the activity of the brain and nervous system. In Australia, it is mostly available as a white powder. It can be inhaled, injected or snorted.[1] Another form of cocaine is 'crack' cocaine which is sold as small crystals or 'rocks', although rarely found in Australia. It gets the name crack because the baking powder residue in it crackles when it is smoked.[2]

As with other illegal drugs, cocaine sold on the streets is often mixed or cut with other substances to make it go further. This can increase harmful effects and the risk of overdose due to variations in strength.

IMMEDIATE EFFECTS

The effects are usually felt immediately and briefly, lasting around 15 to 30 minutes. The nature and intensity of effects may vary according to the size, weight and health of a person and according to the amount and methods of use.

Generally, the immediate effects of the cocaine 'high' include:

- Exhilaration, euphoria
- Increased energy, confidence
- Heightened body temperature & blood pressure, rapid heart rate
- Feelings of wellbeing
- Reduced appetite
- Sense of increased strength & mental capacity
- Dilated pupils
- Sexual arousal.[3]

In return for the high is a sudden, intense 'low', including symptoms such as:

- Depression, even paranoia
- Difficulty getting to sleep
- Feelings of tiredness & irritability upon waking
- Anxiety, panic.[4]

In rare cases, sudden death can happen on or following the first use of cocaine. There is no way to know who is prone to sudden death.[5]

alert

Cocaine is a stimulant drug, meaning it speeds up the activity of the brain and nervous system.

In return for a brief 'high' is a sudden, intense 'low' which may include depression, anxiety and panic.

Sudden death can happen on or following the first use of cocaine in rare cases.

When taken in high doses over a number of hours, users may also experience:

- Extreme agitation/ aggressive behaviour
- Paranoia/ paranoid psychosis
- Hallucinations
- Headaches
- Dizziness
- Feeling sick/ vomiting
- Tremors
- Loss of interest in sex
- Apathy
- Heart pain/ heart attack
- Fast, irregular, shallow breathing
- Fits
- Overdose.[6]

During the 'crash' following a binge, users may also experience intense depression, lethargy, hunger and even suicidal tendencies.[7]

LONG-TERM EFFECTS

With more frequent, long-term use the negative effects increase, with symptoms such as:

- Restlessness/ being overly excitable
- Sleeplessness
- Weight loss
- Depression
- Inability to experience pleasure[8]
- Dependency/ addiction
- Sexual problems, including impotence
- Nasal problems from snorting
- Seizures/ fits
- Heart attack, stroke, respiratory failure
- Psychiatric problems, such as psychosis, paranoia, depression, anxiety disorders & delusions.[9]

DEPRESSION

Research strongly suggests that cocaine harms the brain's dopamine "pleasure centre" – the brain cells that help produce feelings of pleasure. Ironically, these are the same brain cells that trigger the "high" experienced by cocaine users.

While the immediate effect of cocaine is to increase levels of dopamine, creating feelings of intense pleasure, ongoing use seems to reduce dopamine levels, making it difficult for users to feel positive emotions. This helps explain why depression is common among cocaine users.[10]

DANGERS OF → COCAINE

Data gathered by a telephone hotline for cocaine users in the US discovered the majority of users had experienced extreme, even life-threatening, psychiatric and psychological effects. Eighty-five percent of callers had experienced severe depression, 78% irritability and 65% paranoia.[11]

Severe damage to dopamine is also a characteristic of Parkinson's disease, leading to loss of movement control.

HEART PROBLEMS/ STROKE

Frequent cocaine use may gradually cause blood vessels to become inflamed and clotting to occur, creating an increased risk of heart attack and stroke, even for users who are not otherwise at high risk of these problems.[12]

Frequent heart-related medical complications of cocaine use include:

- Heart attack due to raised heart rate and constricted arteries.
- Disruption to the brain's electrical message to the heart. The heart beats inconsistently and cannot be regulated, resulting in a possible cardiac arrest.
- Found to trigger chaotic heart rhythms.[13]

ADDICTION & WITHDRAWAL

Cocaine is an extremely addictive drug, particularly in terms of psychological dependence.[14] Anyone can become dependent on cocaine and develop tolerance[a] to it.

Cocaine withdrawal usually happens in three phases.

- **'The Crash'** – Immediately after a person stops using, in the first two to four days, symptoms include agitation, depression, intense craving for the drug and extreme fatigue.
- **Withdrawal** – for up to 10 weeks following use, a person may experience depression, lack of energy, anxiety, intense craving or angry outbursts.
- **Extinction** – this phase may be ongoing, involving episodes of craving cocaine, usually in response to a trigger. These cravings may surface months or years after a person has stopped using cocaine.

Other withdrawal symptoms that may be experienced include lack of motivation, inability to feel pleasure, nausea/ vomiting, shaking, irritability/ agitation, muscle pain, long but disturbed sleep.[15]

a Tolerance is when a person needs to take more and more of a drug to experience the same effects.

Cocaine use may increase risk of heart attack and stroke due to raised heart rate and constricted arteries.

Snorting cocaine can damage the nose, enough to make it collapse.

DAMAGE TO NOSE

Snorting cocaine can create pimple-like abscesses in the nose that can turn into raw holes. The holes can eat away the cartilage that divides the nose, enough to cause it to collapse.[16]

Snorting cocaine can also lead to nosebleeds, sinus problems, and runny, inflamed nasal passages.[17]

INJECTING

Injecting over a period of time can result in blocked blood vessels caused by the substances mixed with cocaine, leading to serious damage to the liver, heart and other bodily organs.

Pricking of skin may lead to damage requiring skin grafts.

Injecting with dirty needles carries all the usual risks of hepatitis C and B, HIV, blood poisoning and skin abscesses (sores with pus).[18]

SMOKING

Smoking cocaine, such as crack, can lead to difficulty breathing, a constant cough, chest pain and damage to the lungs.[19] Smoking seems to make a person likely to become a compulsive user more quickly.[20]

PREGNANCY

A significant amount of research into the effects of cocaine use during pregnancy suggests cocaine may cause bleeding, miscarriage, premature labour and stillbirth. Because cocaine causes rapid heart rate in both mother and baby and the supply of oxygen and blood to the baby is reduced, the baby is more likely to be below average size and grow slowly.[21] If cocaine is used near birth the baby may be born under the influence of the drug, showing signs of being agitated and hyperactive.

There is some research to suggest babies of cocaine-using mothers are susceptible to malformations of the genito-urinary tract, heart, limbs and/ or face.[22] A number of instances of bleeding in the brain have also been reported in babies whose mothers were dependent on cocaine.[23]

It is believed that cocaine is transferred to the baby through breast milk, causing the baby to become restless, irritable and difficult to feed.[24]

DANGERS OF COCAINE

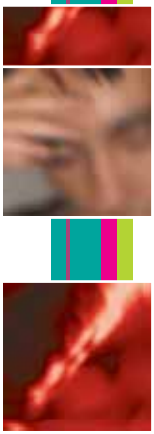
OVERDOSE

Anyone who uses cocaine, even in small amounts, could be at risk of overdose. Some people have unexpectedly strong reactions to it. Mixing with other drugs makes a person more prone to overdose.

Overdose may result in:

- Fast, irregular or weak heartbeat
- Difficulty breathing
- Heart failure
- Bleeding blood vessels in the brain
- Death.[25]

There have been some instances of death related to cocaine use as a result of seizures, heart attack, brain haemorrhage, kidney failure, stroke, repeated convulsions.[26]



COCAINE & OTHER DRUGS

Cocaine users often mix with other drugs to increase the pleasurable effects or to help them deal with the negative effects, particularly of the crash. This may include alcohol, cannabis, heroin and benzodiazepines. Combining cocaine with alcohol causes the liver to produce a substance called cocaethylene which can be more harmful to the body even than the cocaine and may increase the chance of sudden death.[27] Injecting heroin and cocaine can affect the area of the brain responsible for breathing, increasing risk of coma and death.[28]

OTHER PROBLEMS

Cocaine users can become obsessed with obtaining the substance, using it and recovering from use, to the detriment of other areas of life. Family, work and relationships can all suffer as a result of drug use.→←

Endnotes

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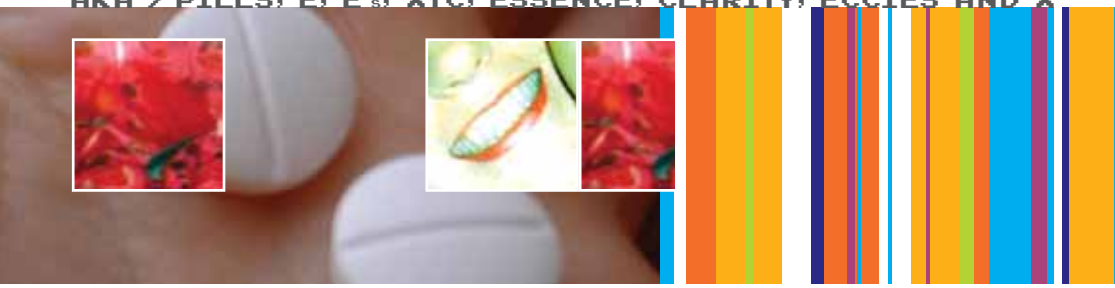
DANGER UP → ECSTASY

AKA > PILLS, E, E's, XTC, ESSENCE, CLARITY, ECCIES AND X



WHAT IS ECSTASY?

"Ecstasy" is one of the street names for a synthetic chemical, known as MDMA (3,4-methylenedioxymethamphetamine). MDMA is classed as a "psychedelic amphetamine", as it combines some of the effects of hallucinogens (such as LSD) with the stimulant effects of amphetamines (speed).[1]

However, tablets sold as ecstasy could contain anything at all, making use of the drug particularly risky. In an American study over one third of 'ecstasy' pills contained no MDMA at all, and five other active substances were identified.[2]

Seven deaths in South Australia in the late 1990s were found to be related to paramethoxyamphetamine (PMA, known as 'death'), the victims having taken what they thought was ecstasy.[3]

Ecstasy is usually taken in the form of a tablet or "pill" which can be any size or colour. It can also come in the form of a capsule, or powder which is snorted. A very small number of users inject ecstasy, which is particularly dangerous because the tablets are not designed for injecting and can block veins.

Trendy brand names are often used to cleverly market ecstasy to young people or fashion-conscious older users. Pills may come branded with the names of respected companies, such as Calvin Klein or Mercedes, or stamped with the images of characters such as Bart Simpson or Superman.[4]

ALERT alert

Ecstasy, or MDMA, combines some of the effects of hallucinogens like LSD with the stimulant properties of amphetamines, "speed".

Negative side effects include teeth grinding, jaw clenching, nausea, anxiety, and hyperthermia.

IMMEDIATE EFFECTS

The effects of ecstasy depend on the purity and strength of the tablet, an unknown quantity.

DANGERS OF ECSTASY

Immediate effects can include elevated mood, a sense of closeness to others, euphoria, teeth grinding, jaw clenching, sweating, dehydration, nausea and anxiety.

Higher doses can produce hallucinations, irrational behaviour, panic, vomiting and convulsions.[5]

Another potentially serious side effect is hyperthermia, especially if factors include a hot environment, vigorous activity, dehydration and inability to perspire. Symptoms include flushed skin, increased breathing and heartbeat. Seizures and convulsions may also occur. Hyperthermia may drive a person to consume extraordinary amounts of water, which in itself can cause death. In a case recorded in Britain an ecstasy user consumed 14 litres of water which caused fatal swelling of the brain.[6]

SHORT-TERM EFFECTS

Short term emotional and physical health problems are common. Ecstasy affects chemicals in the brain called neurotransmitters, one of the main ones being serotonin, another is dopamine. Serotonin is involved in regulating moods, sleep, pain, appetite and sex drive. After the immediate effects of ecstasy wear off, the serotonin levels are drained, and users may feel depressed, anxious, irritable, or tired. Regular use may lead to such low levels of serotonin that the user only feels good when they're on ecstasy. Continued use only reduces serotonin further, creating a vicious cycle.

Dopamine is involved in movement. When brain dopamine is severely depleted, movement becomes slow and unsteady. Shaking at rest can occur.

Users frequently report the following effects:

- Loss of energy/ exhaustion
- Irritability
- Depression
- Trouble sleeping/ insomnia
- Confusion & difficulty concentrating
- Sweating & hot and cold flushes
- Trouble urinating
- Weight loss, poor appetite & vomiting
- Joint pains & muscle aches
- Headaches
- Blurred vision
- Anxiety & paranoia.

alert

Many ecstasy users report emotional and physical problems such as irritability, tiredness, anxiety and a range of other symptoms.

Ecstasy could be linked to selective long-term brain damage in users, leading to depression, memory loss and psychological problems.

Some also experience more extreme symptoms like:

- Suicidal thoughts, panic attacks, fainting[7]
- Brain damage.

BRAIN DAMAGE

Disturbing evidence continues to emerge that ecstasy use could be linked to long-term damage to parts of the brain.[8] This could lead to long-term depression and negative effects on memory, mental processing and, potentially, problems with movement.

Research in rats and monkeys shows that ecstasy destroys parts of the brain cells that produce serotonin (serotonin is involved in regulating moods, sleep, pain, appetite and sex drive) and/ or dopamine (dopamine is involved in movement). In animals, this damage is long-lasting, and may, in some areas of the brain, be permanent.[9]

More recent studies in human ecstasy users support findings that serotonin nerve endings in the brain might be damaged by ecstasy.[10]

University of Adelaide research obtained from brain scans and psychological assessment of users found that ecstasy taken on a few occasions could cause severe damage to brain cells, with potential to cause future memory loss or psychological problems.[11]

This is supported by other studies, however more information is needed.[12]

alert

Ecstasy use may increase the risk of developing a condition similar to Parkinson's Disease.

PARKINSON'S SYMPTOMS

Taking several doses of ecstasy over short periods may put people at risk of developing a Parkinson's-like condition[a] and other disorders.

Research has for some time suggested ecstasy injures the nerve endings in the brain which regulate mood and behaviour (serotonin).

Results of a study released in September 2002 found, in animals, that taking several sequential doses of ecstasy can destroy endings of a second type of neuron, the dopamine neuron. Dopamine controls movement, emotional and cognitive (learning) responses, and the ability to feel pleasure and pain. When these neurons are sufficiently damaged, a condition with symptoms similar to Parkinson's disease[13], known as Parkinsonism, emerges.

The results indicate that "even individuals who use MDMA [ecstasy] on one occasion may be at risk for substantial brain injury

a Parkinson's Disease is a progressive disease marked by trembling, stiffness of resting muscles and a shuffling style of walking.

if they use two or three sequential doses, hours apart, as is often the case in recreational settings."[14] This assumes that findings in animals generalise to humans and that the damage is permanent. Both assumptions have yet to be fully validated.

LEARNING & MEMORY PROBLEMS

Australian National University research published in December 2001 indicated that ecstasy can cause long-term damage to memory as it relates to learning.

Two studies, which involved present and former ecstasy users undergoing a series of clinical memory assessments, found that although users had little difficulty recalling memories compared with non-ecstasy users, they had trouble storing new information. It took them much longer to learn new things, to get the brain to store new information.

The damage did not appear to improve or correct itself over time. There was some regrowth in the nerve fibres damaged through ecstasy use, but not full recovery.[15]

Memory tests and brain scans performed by Dutch researchers on subjects who had recently used ecstasy also revealed memory deficiencies that persisted long-term.[16]

BIRTH DEFECTS

Follow up of 136 babies exposed to ecstasy while in the womb indicated that the drug may be associated with a significantly increased risk of birth defects (15.4% compared to the expected rate of 2-3%). The main problems included abnormalities of the heart and blood vessels and club foot.[17]

IMMUNITY

Regular users of ecstasy often become physically run-down. They may experience reduced energy levels and be more open to infections, cold, flu and other bugs.[18]

alert

Ecstasy use may cause lasting damage to memory and learning ability.

Ecstasy use during pregnancy is very risky, with evidence of links to birth defects.

DEATHS

Overdose of ecstasy can occur and some deaths have been related to overheating and dehydration.[19] Over 50 ecstasy-related deaths in the UK and several in Australia have been reported.

Long-term use of ecstasy can cause serious physical damage. In 1996, a British study of the deaths of seven male ecstasy users 20-25 years old reported that their livers, brains and hearts had severely degenerated.[20]

Many ecstasy users experience problems financially, with work and study, and with relationships.

ECSTASY PSYCHOSIS

Reports from Europe reveal instances of psychosis triggered by use of ecstasy. This is a temporary condition resulting from use of the drug. The main symptom is paranoia (irrational thoughts, feeling like you're being followed or talked about, thinking people are plotting against you), as well as hallucinations (hearing voices and seeing things that are not there).

People suffering from this condition would obviously be more prone to hurting themselves and others.[21]

HEALTH PROBLEMS ARE NOT THE ONLY RISKS!

Because ecstasy makes people feel warm and loving and open, it can lead to dangers in terms of users **being taken advantage of** emotionally, financially, or physically/sexually.

In research conducted by the National Drug and Alcohol Research Centre (NDARC), many of those users interviewed had experienced **financial problems** related to their ecstasy use, some of which included not being able to pay rent or buy food. Half of all users were dealing to help pay for their own drugs, and others were involved in stealing or shoplifting, or stealing from their parents.

Half of the people interviewed by NDARC who used ecstasy had **work or study problems** connected with their ecstasy use. This included sick leave, skipping classes, trouble concentrating, lack of motivation, reduced work performance or even quitting or being sacked.

Half also had **relationship or social problems** like arguments, jealousy, break-ups or getting kicked out of home, which they connected to their ecstasy use.[22] →E←

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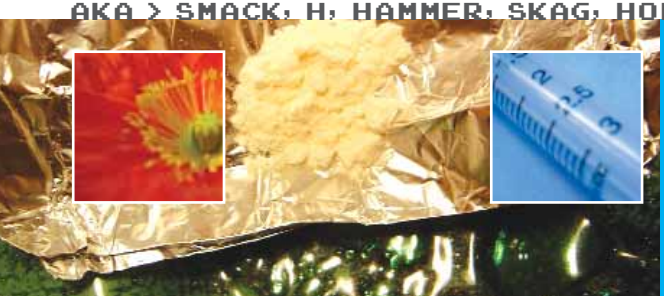
DANGER UP → HEROIN

AKA > SMACK, H, HAMMER, SKAG, HORSE, DOPE, ROCKS...



WHAT IS HEROIN?

Heroin comes from the opium poppy.[1]

Heroin is sold as white granules, pieces of 'rock' or powder with a bitter taste and no smell. It is packed in aluminium 'foils' or small coloured balloons.[2]

The heroin sold on the street is usually mixed with other substances. This can increase harmful effects and the risk of overdose due to the impurities and to variations in strength.[3]

Heroin is a 'depressant' drug, meaning it slows down the central nervous system and messages going to and from the brain – physical, mental and emotional.

Heroin is most often injected, smoked or snorted.[4]

ALERT alert

Heroin is a depressant drug, meaning it slows down the central nervous system.

IMMEDIATE EFFECTS

The effects of heroin vary depending how much is taken and how it is taken. Immediate effects can include intense pleasure and a strong feeling of wellbeing.[5] There is also a warm flushing of the skin, dry mouth and a heavy feeling in the extremities, which may be accompanied by nausea, vomiting and severe itching.[6] Heroin can slow down bodily functions where breathing, blood pressure and pulse become slower and the pupils of the eyes get much smaller.

Other effects include:

- Decreased hunger and sexual urges
- Drowsiness – feeling heavy and sleepy
- Slurred speech.

Stronger and more lasting effects when more is taken include:

- Poor concentration
- Falling asleep – 'on the nod'
- Slow breathing, shallow breathing
- Nausea and vomiting (more likely)
- Sweating, itching, increased urination.[7]

DANGERS OF HEROIN

LONG TERM EFFECTS

With regular use over time some people may experience health problems such as:

- Heart, chest and bronchial problems
- Loss of appetite, which could lead to malnutrition
- Cravings for sweet foods and drinks
- Pneumonia
- Chronic constipation
- Overdose[8]
- Reduced sex drive and impotence in men
- Irregular menstruation and infertility in women
- Coma and/ or death from overdose.[9]

Many of the additives in street heroin may include substances that do not readily dissolve and result in clogging of the blood vessels that lead to the lungs, liver, kidneys or brain. This can cause infection or even death of small patches of cells in vital organs. Immune reactions to these or other contaminants can cause arthritis or other rheumatologic problems. It can also lead to collapsed veins, tetanus, abscesses (boils) and other soft tissue infections.

Lung complications including various types of pneumonia and tuberculosis may result from poor health conditions and slowing of breathing caused by heroin use.[10]

OVERDOSE

One of the most serious health risks associated with heroin is the possibility of an overdose. Overdose happens as a result of heroin's effect in slowing down the central nervous system. Too much heroin can lead beyond drowsiness into coma.[11] Heroin overdose is now one of the leading causes of death in Australia in the 18-34 year age group.[12]

Death is always a possibility for heroin users because the purity varies so much.

ADDICTION

Addiction itself is one of the most negative long term effects of heroin. Heroin is extremely addictive, even after a few days of use.

Dependence can be psychological, physical or both. For those who are dependent, heroin often becomes much more important than anything else in their lives. They experience intense cravings and find it very difficult to stop using or even cut down.

Overdose is a major risk for heroin users. Too much heroin can cause a person to go into a coma and die.

SELF NEGLECT & CRIME

Results of dependence can include poor nutrition, hygiene and inability to pay for suitable housing. These factors can make a person more likely to contract infections and experience other health problems. It can also lead users into crime to pay for this all-consuming habit.[13]

WITHDRAWAL

Withdrawal symptoms increase and reach a high point within 2 to 4 days of stopping. These include:

- Craving the drug
- Restlessness
- Yawning
- Tears
- Diarrhoea
- Low blood pressure
- Cramps in the stomach and legs
- Vomiting/ nausea
- Goose bumps
- Runny nose
- Irritability
- Inability to sleep
- Loss of appetite
- Increased heart rate
- Muscle spasms
- Depression
- Trembling.

Alert

Heroin is extremely addictive, even after a few days of use. It can become all-consuming for users.

Dependence on heroin can lead people into crime to pay for the habit.

Heroin use can lead to impotence and loss of sex drive in men. For women it can mean irregular periods and infertility.

The symptoms usually subside within 6-7 days. Some symptoms, such as chronic depression, anxiety, insomnia, loss of appetite and periods of agitation and craving for the drug, may last months or years.[14]

SEXUALITY

Reduced hormone production is a side effect of heroin use. For men, this can mean lower sex drive and even impotence. For women, it can mean irregular periods and sometimes infertility. Sexual difficulties can lead to problems in relationships.[15]

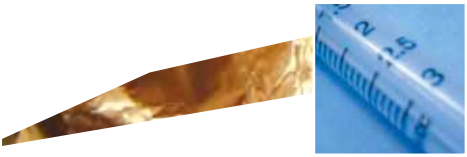
DANGERS OF HEROIN

EFFECTS RELATED TO THE METHOD OF USING

A major problem with heroin use is to do with the way it is used, especially if injected. Sharing injection equipment greatly increases the risk of contracting infections such as blood poisoning, Hepatitis B and C and HIV.[16]

HEROIN & OTHER DRUGS

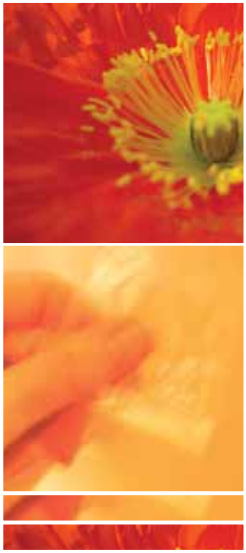
Mixing heroin with other drugs, especially other depressants (alcohol, minor tranquillisers), can be particularly dangerous. Depressant drugs slow down the body's systems and combinations can have increased effects. This may lead to coma or even death.[17]



PREGNANCY

Using heroin during pregnancy is harmful to the baby in the womb. Babies of users are usually underdeveloped and suffer breathing problems and infections in their first few weeks. Heroin can also cause premature labour.

Heroin can pass through the placenta and make the baby dependent, causing the baby to experience withdrawal symptoms after birth.[18]



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DANGERS OF MARIJUANA

AKA > POT, GRASS, MULL, WEED, DOPE, HOOCH, HEMP...

WHAT IS MARIJUANA?

Marijuana is the common name for *Cannabis Sativa*, the Indian Hemp plant (the terms 'cannabis' and 'marijuana' are used interchangeably). Other names include Indian hemp, hashish, charas, ganja, dagga and sinsemilla. Street and slang names include pot, grass, mull, weed, dope, hooch, hemp, joints, gunja, kif (kef), reefer, cone, hash, stash, rope, roach, skunk.

Marijuana is used in various forms, such as:

- **'Grass'** – leaves, stems and seeds which are dried and finely chopped. Looks a bit like dried parsley. THC content usually 1-3%. The flowering tops are also used, with THC content upwards of 6%. (THC is the main psychoactive ingredient in marijuana – the higher the THC content the more potent it is.)
- **Sinsemilla** (seedless) variety, with up to 17% THC.
- **Hashish** ('hash'), a mixture of dried, pressed flowers, leaves and resin, with around 8-14% THC. Sold in solid pieces.
- **Hashish oil** ('oil', 'honey oil'), a concentrated extract, brown-black in colour, with 15-50% THC.
- **Crystals** produced from hashish oil, with up to 60% THC.
- **'Skunk',** a miniature hybrid plant with up to 30% THC.[1]

alert

Marijuana is a name for the cannabis plant. Street names include pot, grass, mull, weed, hemp, dope, skunk.

Marijuana is usually smoked dry as a joint or through a water pipe – 'bong'.

Marijuana contains more than 426 harmful chemicals including the harmful psychoactive substance, THC, which can remain in the body for long periods of time.

Cannabis is smoked on its own, with tobacco, or with other drugs. Most users roll loose marijuana into a cigarette, called a joint, or smoke it through a water pipe, called a bong. People also sometimes eat it in cookies or soup. Hash users may crumble and smoke the drug through a pipe or in a joint with tobacco or marijuana. Hash is also sometimes baked into cookies or cakes. Hash oil is usually wiped onto a cigarette or rubbed into tobacco and smoked.

CHEMICAL COMPOSITION

In terms of its chemistry, marijuana is one of the most complex of illicit drugs. While most other illicit drugs are made up of one or a few chemicals, cannabis contains more than 426. This includes the 62 resinous substances – 'cannabinoids' – found in the stem, leaves and flowers of the cannabis plant that are unique. The main one is the harmful psychoactive ingredient THC.

The cannabinoids in cannabis are highly fat-soluble, which means they may remain in the fatty tissues of the body for long periods of time. A 50% concentration of THC can be found in the body 8 days after using cannabis, and traces can still be found up to 3 months after use. THC is constantly stored in the bodies of regular users, and accumulates particularly in the testes, liver and brain.[2] When marijuana is smoked, over 2,000 chemicals are formed, including various cancer-causing substances.

alert

Today's marijuana is believed to be many times stronger than in the 1960s and 70s.

Physical effects of use include dry mouth, hunger, red eyes, vomiting, diarrhoea, dizziness, headache and poor coordination.

POTENCY

As a result of increasingly sophisticated growing methods, the marijuana available to young people today may be many times stronger than in the 1960s and 1970s.[3]

IMMEDIATE EFFECTS

Immediate physical effects can include:

- Dry mouth
- Hunger ('the munchies')
- Increased heart rate
- Red eyes due to raised intraocular pressure
- Vomiting, diarrhoea, dizziness & headache
- Decreased ability to drive a car and to perform tasks requiring fine muscle concentration.

DANGERS OF → MARIJUANA

Immediate psychological/ emotional effects can include:

- Euphoria, elevated self-confidence, relaxation
- Feelings of well-being and heightening of the senses, such as vivid visual and auditory experiences.
- Altered perception of time and space
- Impaired memory
- Difficulty concentrating
- Anxiety and agitation
- Paranoia, and irrational or psychotic behaviour may occur.

alert

Psychological/ emotional effects can include euphoria, relaxation, heightened senses, memory loss, lack of concentration, anxiety, agitation, paranoia, psychosis.

Marijuana use can lead to feelings of depression, anxiety, aggression and paranoia.

Studies have linked marijuana with various psychiatric problems, including schizophrenia.

MENTAL ILLNESS

Mental effects caused by marijuana can include depression, flashbacks, aggressive feelings, anxiety leading to panic, paranoia, confusion, delusions (especially of persecution), hallucinations resulting from toxic psychosis, psychotic disorder (insanity), delirium, and depersonalisation.[4]

A study by researchers at Melbourne's Royal Children's Hospital indicated a strong link between heavy marijuana smoking and depression. The study followed 2,000 youths aged 14-21 for seven years. The effects of habitual use were particularly marked in young women: those who used daily ran seven times the risk of suffering depression and anxiety. A similar study of both sexes by a Christchurch Medical School professor found daily cannabis use doubled the risk of depression.[5]

In the more severe psychiatric cases, users may have to be admitted to a hospital emergency room. During 1998, then NSW Health Minister Dr Andrew Refshauge MP reported that between 1993 and 1997 hospitals experienced an almost 10% increase in the number of cannabis-dependent patients suffering from drug-induced psychotic illness.[6]

Of 200 participants in a 1997 National Drug and Alcohol Research Centre (NDARC) study of long-term cannabis users in Australia, 40% had consulted mental health professionals, been admitted to a psychiatric hospital, or prescribed medication for a psychological problem.[7]

Studies conducted in Sweden of more than 50,000 people over a 15-year period revealed that those who had used cannabis 50 times or more were 6 times more likely to develop schizophrenia than non-users.[8] Marijuana may also trigger schizophrenia in those already predisposed to the illness.[9] A 1990 study of schizophrenia and substance abuse found that 42% of schizophrenics had used marijuana in their lifetime.[10]

The link between marijuana and mental illness has raised concerns that heavy use may be contributing to Australia's already high suicide rate.

MEMORY & LEARNING PROBLEMS

Young people who use marijuana may experience short-term memory loss lasting up to six weeks.[11] PET brain scans of chronic users show marijuana may continue to impact the brain three or more days after use, particularly affecting motor coordination, learning and memory.[12]

In America, a group of teenage marijuana users tested for short-term memory performed poorly compared to a control group matched in age, education level, and IQ. The memory loss persisted after six weeks drug-free (supervised).[13]

alert

People who use marijuana may experience memory loss and learning difficulties.

Studies have shown marijuana use is a factor in many accidents.

COORDINATION/ ACCIDENTS

Because it impairs coordination, marijuana is a factor in many accidents, according to studies. A 1991 study of ten pilots in a flight simulator showed they made significant errors in landing the plane up to 24 hours after smoking just one low-potency marijuana cigarette.[14]

Numerous studies over the years have linked marijuana with road accidents. Particularly worrying is that marijuana impairs drivers' abilities long after they feel its intoxicating effects have worn off.[15]

DANGERS OF MARIJUANA

BRAIN AGEING

Marijuana is the only drug of abuse for which there is solid evidence linking it with ageing in the part of the brain responsible for short-term memory (the hippocampus). The Professor of Pharmacology at Oxford University, England, found brain atrophy in young people who were heavy marijuana users to be equal that of 70-90 year olds. Recent studies of rats also suggest THC may hasten ageing of the brain.[16]

APATHY

Chronic users of cannabis may experience what is often referred to as 'amotivational syndrome' – that is, apathy and loss of motivation.[17] The user may display little interest in school, sport and other activities that were previously enjoyed. Care taken with personal appearance and/ or hygiene may also lapse significantly.

ADDICTION

Contrary to claims that marijuana is not addictive, research is increasingly proving that cannabis is a drug that causes physical, as well as psychological, dependence.

The 1997 NDARC study of long-term cannabis users revealed more than 90% were dependent on the drug, with 40% being severely dependent.[18] Other studies support these findings.[19]

alert

Marijuana has been linked with ageing of the brain similar to Alzheimers.

Chronic users of cannabis may become unmotivated.

Research is increasingly showing marijuana to be an addictive drug.

Long-term marijuana use may lead to low sperm counts, impotence, and loss of sex drive in men, and fertility problems in women.

Unfortunately, as with most forms of addiction, cannabis users tend to be unaware that they have become dependent on the drug, and often ignore or deny the negative effects in their lives.

REPRODUCTIVE SYSTEM

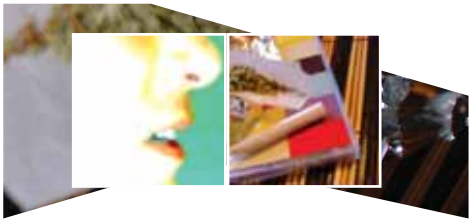
Cannabis use has been associated with decreased testosterone production and low sperm counts in men.[20] There is also some evidence that sperm produced by users is abnormally shaped and may have biochemical or structural defects.[21]

Cannabis use may cause teenage boys to complete puberty later than usual because it decreases testosterone levels.[22] While some men believe cannabis increases sexual desire and performance, the long-term effects of use can include impotence, loss of sex drive/ desire, and infertility.[23]

There is concern that heavy cannabis use may also decrease levels of fertility in women, but this is not fully proven. Research reveals that many women who use marijuana do not have normal menstrual cycles, which is connected to fertility.[24]

HARM CAUSED TO BABIES/ CHILDREN

For a woman to consume cannabis whilst pregnant is extremely risky. This can affect the baby in the womb, after his/her birth, and later in life. There is higher risk of miscarriage, lower birth weight, and premature birth. It is also believed the children of women who used cannabis are more likely to have behavioural problems.[25]



alert

Cannabis use during pregnancy carries enormous risks, including ten times the risk of the child developing leukaemia.

Cannabis use may mutate genes.

However, most worrying of all were the results of research conducted during 1989 in the US which revealed that children whose mothers smoked marijuana just before or during pregnancy had ten times the risk of developing leukaemia.[26]

CHROMOSOME DAMAGE

According to Moffit, Malouf and Thompson in *Drug Precipice* (1998), studies conducted in laboratories suggest marijuana is able to change the character of genes in cells, or 'chromosomes' (chromosomes contain the hereditary characteristics of our cells). It is suggested that these changes may be mutagenic – that is, able to be passed on to future generations.

MARIJUANA

RESPIRATORY EFFECTS

When marijuana is smoked, various gases and tiny particles are produced, including cancer-causing substances such as benzopyrene and benzanthracene, which are present in nearly double the concentrations found in tobacco smoke.[27] Smoking one marijuana cigarette leaves airway deposits of 4 times as much cancer-causing tar as one tobacco cigarette.[28] Marijuana is also a suspected cause of the lung disease, emphysema, and marijuana users have an increased risk of developing acute and chronic bronchitis, asthma, sinus problems and airway injury.[29]

While marijuana smokers normally smoke a lot less often than tobacco smokers, joints are rarely filtered and the smoke is drawn more deeply into the lungs and held in longer, causing chronic irritation to the airways.

A study in the US of patients under 40 years old with respiratory tract cancer noted that 70% of them were daily marijuana users.[30]

alert

Possible respiratory effects from using cannabis include emphysema, bronchitis, asthma, sinus and lung cancer.

Marijuana can reduce immunity to infection and disease.

Smoking marijuana places a strain on the heart and may be connected to heart disease.

IMMUNE SYSTEM

Marijuana users may experience impairment of immune functions – the body's capacity to fight infection and disease. A 1989 US study revealed that THC in marijuana reduces the activity of cells that destroy foreign substances.[31] This would counter claims that marijuana has therapeutic benefits for AIDS and cancer patients.

HEART DISEASE

When a person smokes tobacco, carbon monoxide in the smoke takes the place of oxygen in the blood, causing the heart to beat faster to make up for oxygen loss. Over time, this process weakens the heart muscle, which is why around 25% of deaths related to tobacco are from coronary heart disease.

A similar process occurs with marijuana; however, there is even greater pressure on the heart. Just ten puffs on a low-potency joint was shown to increase the heartbeat of angina patients to 100 per minute, as well as increasing blood pressure. This was more than double the effect of tobacco. In other studies, the heartbeats of marijuana smokers increased from a normal rate of 70 per minute to 130-150 per minute.[32]

GATEWAY DRUG

Whilst not everyone who tries marijuana will progress to other drugs, more than 90% of heroin users in The Salvation Army's Bridge Program for rehabilitation have reported that they commenced illicit drug use with marijuana.

There is other evidence to support claims that marijuana is a 'gateway drug'. One US study showed that 20% of persons who used marijuana 3-10 times went on to use cocaine and 75% of persons who used marijuana 100 or more times progressed to cocaine.[33]

There is evidence to support claims that marijuana is a 'gateway drug'.

Cannabis is a major drug of abuse among homeless youth, and abuse of the drug may be a factor in the initial breakdown of family relationships in some cases.

FAMILY CONFLICT

Drug abuse among young people, and use of marijuana in particular, may be a factor in the breakdown of family relationships leading to youth homelessness.

Teenage drug abuse was a key cause of conflict in 42% of families assisted through The Salvation Army's 'Reconnect' program, which assists families with a teenager considered to be 'at risk' of becoming homeless.

More than 80% of the homeless young people currently being assisted by The Salvation Army's Oasis Youth Support Network in Sydney were involved in drug and alcohol abuse when they initially presented, and of those, almost all have used cannabis.[34]

DANGERS OF MARIJUANA

SIGNS OF USE

Some of the following 'danger signals' of marijuana use may help identify a drug problem in someone close to you.

- Drug paraphernalia, such as pipes, bongs, plastic bags, rolling papers, seeds, stems, and small tins
- A pungent, smoky smell on clothing
- Bloodshot eyes/ use of eye-drops/ wearing sunglasses at inappropriate times
- Loss of interest in school, sport, other activities – general apathy
- Marked changes (for the worse) in attitude, behaviour and achievement at school or work
- Sudden mood swings, hostility, bursts of anger
- Rebellious behaviour
- Withdrawing from previous friendships
- Disappearance of money or valuable objects from the home
- Isolating themselves
- Becoming more secretive
- Loss of short-term memory, difficulty concentrating, shorter attention span.

alert

Signs of marijuana use include equipment such as pipes, bongs and rolling papers, use of eyedrops/ bloodshot eyes, behavioural changes, apathy and memory loss.

Chronic marijuana users may experience apathy, frequent illness, skin problems, odd eating patterns and sleeping habits.

SIGNS OF CHRONIC USE

Some of the chronic effects of marijuana use are believed to be as follows:

- Amotivational syndrome, producing chronic lethargy, lack of drive or ambition, apathy, poor concentration and social withdrawal[35]
- Frequent respiratory infections
- Acne & other skin problems may become worse
- Eating at unusual times
- A distorted sense of time
- Staying up very late/ sleeping in
- Loss of interest in work, job, school, sport
- Others as detailed in this paper → M ←

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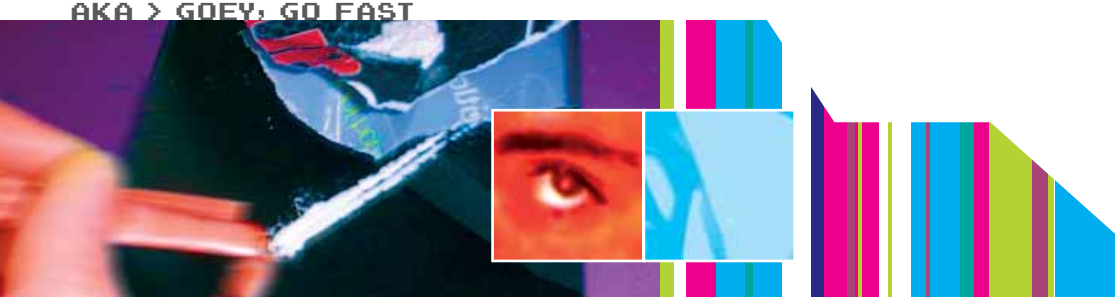
DANGER ZONE → SPEED

AKA > GOEY, GO FAST



WHAT IS SPEED?

'Speed' is the name given to a number of street drugs that are chemically related to amphetamine.[1]

Amphetamines stimulate, or speed up, the major central nervous system and are sometimes described as psycho-stimulants or stimulants, with similar properties to cocaine.[2]

Amphetamine does not occur naturally, it is a synthetic chemical. Most is produced in backyard laboratories.

Chemical names of amphetamines most commonly used in Australia are amphetamine, dexamphetamine and methamphetamine.

Amphetamines are taken by mouth, by snorting the powder, or by intravenous injection of powder dissolved in water (the riskiest method). Speed is also sometimes sprinkled on top of marijuana and smoked – 'snow-cones'. The crystal form of methamphetamine – 'ice', 'crystal', etc. – is sometimes smoked in a glass pipe.[3]

ALERT alert

Speed refers to a group of stimulant drugs known as amphetamines.

IMMEDIATE EFFECTS

Like all mind-altering drugs, speed affects brain chemicals, or neurotransmitters, initially leading to increased physical energy and mental alertness. The effect is similar to that produced by adrenalin. Breathing and heart rate increase, the mouth becomes dry, and pupils enlarge.

High doses can cause tremor, anxiety, headache and palpitations with chest pain. Very high doses can cause delirium, hallucinations, delusion and coma.[4]

When the effects of speed wear off, the neurotransmitters are drained (particularly adrenalin), causing the user to feel tired, depressed and irritable. Frequent use can lead to a total depletion of neurotransmitters, which may take months to recover.[5]

After large doses or injection, users experience overwhelming euphoria followed

by devastating depression, exhaustion and confusion.[6] Other negative after-effects include constipation and trouble sleeping.[7]

VIOLENCE

Many users become emotionally unstable and prone to unpredictable violence, aggression and paranoia.

BRAIN DAMAGE

Research has shown that large amounts of speed can kill rat brain cells, and the same thing might happen in heavy speed users. The by-products contained in speed can also be damaging to the brain.

Taking too much speed at once can injure the brain, because of high body temperature.

Speed can also affect the way brain cells work, including ability to concentrate and mood.[8]

HEART PROBLEMS & STROKE

Heart failure and rupture of brain, heart and lung blood vessels can be a side-effect of chronic speed use.[9]

High blood pressure is another side effect.[10]

Speed can cause strokes because of the pressure it puts on the heart and veins. This could lead to paralysis or even death.[11]

Negative effects can include anxiety, depression, trouble sleeping and constipation.

Violence and anti-social behaviour is associated with use of this drug.

Use of speed may cause brain damage, including inability to concentrate and effects on mood.

Speed can cause strokes, heart problems and high blood pressure.

Reduced immunity, poor appetite and sleep patterns are connected with speed use.

IMMUNITY

Use of speed may damage the immune system, increasing the risk of infections.[12] In addition, because regular users often don't sleep or eat properly, they are more prone to infections.[13]

POOR APPETITE

Loss of appetite and irregular eating patterns associated with use of

DANGERS OF SPEED

amphetamines may result in weight loss, malnutrition and vitamin deficiencies.[14]

SPEED PSYCHOSIS

Speed psychosis is a temporary condition caused by using a lot of speed. The main symptom is paranoia. This and other symptoms like hallucinations usually go away after a period of time. People who continue to use become increasingly paranoid, scared and aggressive.[15]

PREGNANCY

Women who take amphetamines during pregnancy have a greater risk of giving birth prematurely, and giving birth to babies with low birth weight. If it is used early in pregnancy, the risk of the baby being born with a deformity is increased. Amphetamine use also increases the risk of miscarriage.

alert

Speed use during pregnancy is linked to premature births, low birth rates, deformities and miscarriage.

Overdose, addiction, and extreme withdrawal symptoms are all factors with speed use.

Some researchers are concerned the babies may experience long-term problems with mental and physical growth.[16]

OVERDOSE

People can overdose on speed, often resulting in headaches, chest pains, fast breathing and pounding heart, paranoia, agitation, anxiety, panic, shakiness, sweats. Death can result from speed overdose, but is unlikely.[17]

ADDICTION

Speed can be just as addictive as drugs such as heroin and alcohol. Regular users develop tolerance to speed, so that they have to use more to get the same effect.[18]

WITHDRAWAL

Extreme depression and suicide attempts may accompany withdrawal, so treatment needs to be carefully supervised.

HEALTH PROBLEMS ARE NOT THE ONLY RISKS!

All the usual drug-related issues – such as problems with relationships, work and study, finances and legal issues – are also associated with use of speed.[19]

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DANGERS OF DRUGS

SIGNS OF DRUG USE

Some of the following 'danger signals' of drug use may help identify a drug problem in someone close to you.

- Marked changes in attitude
- Spending lots of time alone in room
- Lying
- Violence
- Being secretive about movements and friends
- Strange or secretive phone calls
- Stealing
- Not caring for others – family members, friends, etc.
- Short-term memory loss
- Emotional outbursts, mood swings
- Changes in group of friends, loss of interest in old friends
- Sudden drop in grades
- Skipping classes, skipping school
- Difficulty concentrating
- Irregular sleep patterns and eating habits
- Dramatic weight loss or gain
- Constant sniffing, runny eyes and nose, difficulty fighting infection.

See also specific danger signals for Marijuana, page 38 of 'Dangers of Marijuana' section.

SAYING NO TO DRUGS

It's your body, look after it. Remember that the human brain is at a vital stage of development during the teenage years. You have everything to lose and nothing to gain through drug use.

If you don't want to use drugs, there's no need to explain or justify yourself to anyone. It's your right to refuse. Better still, simply passing up a joint or tab or alcoholic drink without saying anything sends a strong message.

LIVING A HEALTHY LIFESTYLE

NATURAL HIGH

Enjoy the many natural means of experiencing a rush of pleasure or excitement.

For example, it's now well known that aerobic exercise releases our body's own feel good chemicals called endorphins.

Lots of other activities – such as laughter, listening to your favourite music or a motivational speaker, even simply wondering at the beauty of creation – are capable of raising endorphins.

Or experience an adrenalin rush by trying one of the many adventure sports on offer, such as abseiling or white water rafting.

MAINTAIN NEUROTRANSMITTER LEVELS

Keep your neurotransmitter levels topped up by:

- **Maintaining a nutritious diet rich in vitamins (particularly the essential amino acids)**
- **Avoiding chronic stress – stress depletes levels of neurotransmitters**
- **Getting plenty of sleep – that's when the body manufactures and replenishes transmitters.[iii]**

iii **Scott, Grice,** op.cit., p.29

WHERE TO GET HELP

The Salvation Army Bridge Program provides:

- Detoxification services
- Long-term residential recovery programs
- Telephone counselling
- Assessment and referral services
- Individual counselling
- Intervention services
- Aftercare services
- Support groups
- Day programs
- Education and training.

ACT
CANBERRA
(02) 6295 1256

NSW
SYDNEY
(02) 9212 2322 *m*
(02) 9211 7300 *w*

MORISSET
(02) 4973 1495 *m*
(02) 4973 4146 *mdd*

NEWCASTLE
(02) 4961 1257 *m*

NOWRA
(02) 4422 4604

CENTRAL COAST
(02) 4388 4588 *w*

NT
DARWIN
(08) 8981 4199

QLD
BRISBANE
(07) 3369 0922 *m*
(07) 3369 0355 *mwd*

GOLD COAST
(07) 5594 7288 *mw*
(07) 5571 5248 *mwd*

TOWNSVILLE
(07) 4772 3607 *m*
(07) 4772 3607 *w*

SA
ADELAIDE
(08) 8231 2555

TAS
BURNIE
(03) 6435 4370

HOBART
(03) 6278 8140

VIC
MELBOURNE
(03) 9521 2770

CRISIS LINE
(03) 9536 7703

WA
PERTH
(08) 9398 2077

KEY

m men only • *w* woman only • *mdd* men, dual diagnosis • *mwd* men & women detox

Oasis Network ACT
Provides relapse prevention, drug and alcohol education and outreach support.

Oasis Youth Support Network Sydney
Offers innovative drug and alcohol programs for young people which are relevant and accessible.

ACT
CANBERRA
(02) 6232 6910

NSW
SYDNEY
(02) 9331 2266

FYRST (Follow-on Youth Recovery Support Team)
Support for young people 16-25 years after giving up drugs or alcohol.

NSW
PARRAMATTA
(02) 9687 3499

FAIRFIELD
(02) 9725 7779

If you simply need to talk about your problems, call **Salvo Care Line** 24-hour telephone counselling service on **1300 36 36 22.**

There is no safe way to use drugs but for anyone who requires information about reducing the harm, contact the **Alcohol and Drug Information Service (ADIS)** in your state.

Quit Marijuana Program
Brain & Behaviour Centre,
Westmead, Sydney.
Ph: (02) 9633 4077.

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