

Cannabis is the short name for the hemp plant *cannabis sativa,* also known as marijuana. Street or slang names include: pot, grass, dope, mull, yundi, hooch, dagga and hash.

# Forms of the drug

Cannabis leaf is usually smoked in water pipes called bongs or in hand-rolled cigarettes called joints. Hashish, or hash, is the resin of the plant. It is sold as oil, or in small, compressed blocks. Hash is usually mixed with tobacco and smoked. The chemical Delta-9 tetrahydrocannabinol (THC) is what makes the user 'high'. The more THC cannabis contains, the stronger it is. The concentration of THC is higher and more potent in hash than in the leaf and flower heads of the plant. Cannabis leaf and hashish can also be cooked in foods e.g. hash cookies.

# **Drug effects**

The effects of cannabis depend on the amount taken, the person's experience with the drug, their expectations, the mood they are in, and the way in which the drug is taken. The effects of cannabis are more intense during the first hour after taking the drug, although they may persist for three to five hours.

Higher doses make these effects stronger. A person's perception of time, sound and colour may become distorted or sharpened. Feelings of excitement, anxiety or paranoia and confusion may also increase. Unlike alcohol and most other illicit drugs, THC does not act on the dopamine (pleasure) centres in the brain. The THC receptors are elsewhere

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in the brain and the immune system. Their purpose is not yet certain, and the chemical effect of THC is not yet fully understood.

Frequent and/or heavy smokers commonly report some long-term effects, which recent research supports. Psychological effects include:

- Decreased motivation, ambition and apathy
- Reduced memory and learning abilitiesDecreased sex drive and deterioration of
- social and communication skills

  Impaired balance, co-ordination, logic,

judgment and concentration. These abilities will usually recover once the person stops or reduces their use of cannabis. The biggest risk with cannabis is of having accidents while driving, operating machinery, or in the home environment.

# **Risks and harms**

Long-term cannabis use also carries the same established risks as tobacco smoking e.g. developing chronic respiratory problems, or lung, mouth or throat cancer from the carcinogens in the smoke. It is not wise to use any drugs during pregnancy. There is some evidence that cannabis use is similar to tobacco in contributing to lower birth weight and slower development in some babies.

#### Dependency

Regular users may develop a psychological dependence. This means they need cannabis because it has become important in their daily lives – usually to relax, unwind, counter stress, or to make them feel at ease in social situations. Some research indicates that some heavy users of cannabis may develop physical dependency. They may

also develop tolerance, which means they need more cannabis to get the same effects as before.

Extreme reactions are rare. There is clinical recognition of people becoming disoriented or suffering hallucinations or behavioural disturbances. Some researchers think cannabis use triggers episodes of pre-existing bipolar disorder (manic depression) or psychosis. People suffering from depression are also likely to have a bad reaction to cannabis, and recent research indicates cannabis can precipitate depression in some vulnerable adolescents. Those people with a family history of mental illness should avoid cannabis or any other drug. Cannabis has been shown by research to be linked to the development of schizophrenia in susceptible people.

#### Danger signs

An overdose of cannabis is very unusual. Ingesting huge amounts has been known to cause people to fall into a coma, and smoking or eating too much cannabis can make someone feel nauseous, paranoid, panicky and generally unwell.

# Withdrawal

Withdrawal occurs when a heavy user stops using cannabis or severely cuts the amount used. During withdrawal, the person may experience:

- · Sleeping problems
- Anxiety
- Sweating
- · Loss of appetite, and an upset stomach.

These symptoms usually disappear within a few days, although sleep disturbances may last longer. Psychological attachments are similar to nicotine.

The first known mention of cannabis was in a Chinese medical text of 2737 BC. It has been used for thousands of years to make products such as clothing and rope, and used for medicinal and spiritual purposes. Despite this long history, it remains one of the least understood illicit drugs. Cannabis is the most commonly used illicit drug in Australia, and comes from the dried flowers and leaves of the cannabis plant. In 1998, 39% of people aged 14 and over had used cannabis at least once in their life-time. (Reducing Cannabis Consumption, C Jones and D Weatherburne - Boscar Report B60). Chronic use of cannabis is now associated with the development of psychological dependence. Recent research, combined with anecdotal evidence from many long-term users, indicates that physical and psychological dependence is possible with prolonged heavy use (meeting the DSM criteria for dependence – see page 16) but this is not inevitable. Small amounts of cannabis do not appear to produce lasting harmful effects, and withdrawal is minimal or non-existent from anything but heavy, continuous use.

# **CANNABIS HARM REDUCTION STRATEGIES**

When the subject of harm reduction for drug users comes up, most people tend to think of the issue in terms of so-called "hard" drug use — distributing clean syringes to injectors, providing information on avoiding overdose to heroin users, educating people about the dangers of mixing pills with alcohol, operating methadone maintenance programs, etc. But in recent years, many researchers and drug educators have begun to look into harm reduction for what is often considered the most benign of illicit drugs — cannabis.

While there has been some research which has linked cannabis use with psychotic episodes in people with a predisposition to schizophrenia, the major harms associated with cannabis use are cardiovascular and bronchial. Simply put, smoking anything is harmful to the lungs, throat and heart. But how you smoke your cannabis can have a large influence on how much harm you do to these areas of the body.

#### Mixes

While it is common in Australia to mull up cannabis with tobacco, doing so increases the potential health risks as the smoker ingests more tar and other harmful carcinogens. Although many smokers may mix their cannabis with tobacco to make it last longer, doing so means you will take in more toxic compounds in the smoke to reach the desired effect. Also, it may be harder to reduce or stop smoking if you mix tobacco with cannabis, as you may experience nicotine withdrawal

Some people mull their cannabis with herbal preparations in the belief that this is less harmful than mixing with tobacco. Doing so will reduce the risk of nicotine withdrawal if you stop smoking, but there is no evidence that these mixes are better for your health.

# Smoking methods

There is a great deal of debate about which methods of smoking cannabis (i.e. joints, pipes, bongs) are the least harmful for your health. A lot of this debate focuses on which method provides the best ratio of THC (the active ingredient) to tar. While there is no consensus among experts about which method is best for your health, there are some things you can do to reduce the harm to your body, regardless of which method you prefer.

JOINTS: Most experts agree that smoking cannabis in joints is one of the least harmful ways to use the drug. To maximise the ratio of THC to tar and carcinogens, it is recommended that you do not use cigarette filters in joints as they eliminate up to 60% of the THC in the smoke, leaving you with a much higher proportion of tar and other toxic substances in the smoke. Instead, smoke unfiltered joints or use rolled pieces of unbleached cardboard in the end of the ioint

BONGS: While many people prefer to smoke cannabis in bongs because the cooler smoke doesn't feel as harsh on the lungs, recent research suggests that using a bong may be one of the most harmful methods of smoking cannabis. The water in a bong absorbs a great deal of the THC in the smoke, thus increasing the amount of tar the smoker must ingest to get the desired amount of THC. Also, using a bong which has a mouthpiece less than 20cm from the water level can allow water vapour and water drops to enter the lungs.

If you do use a bong, it is recommended that you do not use one made of plastic bottles, rubber hose or with an aluminum cone as these materials can give off harmful fumes when heated or melted. It is best to keep your bong clean, and change the water frequently too – a dirty bong can harbour germs and viruses like hepatitis A.

PIPES: If you use a pipe, it is best to choose one made of glass, stainless steel or brass, as wooden or plastic pipes can give off noxious fumes when you burn cannabis in them.

# Inhaling

Among many cannabis smokers the conventional wisdom is that holding in an inhalation of smoke increases the effects felt, but the consensus among experts is that this is not the case, and in fact holding in the inhalation causes more harm to the lungs, without increasing the amount of THC absorbed. Studies indicate that 95% of the THC in cannabis smoke is absorbed in the first few seconds of inhaling, so holding in the smoke any longer just allows more tar and other noxious chemicals to be absorbed by the lungs. It is better to take small, shallow puffs rather than deep inhalations.

# Eating cannabis

One of the best ways to avoid the harmful effects of cannabis smoke on the lungs is to cook your cannabis in cookies or cakes and eat it rather than smoke it. The main drawback of this, however, is that it can be harder to gauge how much you have taken in, as the effects of eating cannabis can take anywhere from 60-90 minutes to hit and can last from four to twelve hours. People who eat cannabis often report the buzz is stronger and trippier than when the drug is smoked. It is best to use caution when eating cannabis and to wait a few hours before eating any more.

# Hydroponic versus bush

Much debate has raged about the merits of hydroponically grown indoor cannabis versus naturally grown "bush" cannabis. The main difference between the two varieties is the THC content of the cannabis, with indoor grown buds reaching a THC content of 13-20% THC, compared to 7-14% THC content for outdoor plants. While some people point to the high THC content of hydroponic cannabis as a factor in the onset of psychological problems, others emphasise the harm reduction benefit of hydroponic cannabis in that the user needs to smoke less to reach the desired effect. If you are unused to smoking strong hydroponic cannabis, it is probably best to go easy on it until you are familiar with your tolerance.

# Bacteria on cannabis

During the handling and curing of cannabis plants, it is possible for fungi and bacteria to contaminate the cannabis. This poses a low-level risk for most smokers, but for those with compromised immune systems (such as those with HIV/AIDS or cancer), it can be a serious health hazard. The best way to handle this is to heat your cannabis in an oven heated to 66-93 degrees  $C^0$  for about 10 minutes to kill any fungi or bacteria.

# Quitting cannabis

If you are trying to cut down or stop smoking cannabis, many drug and alcohol agencies have started quit smoking groups to assist people with managing their cannabis use. These groups usually hold weekly sessions where you can discuss quitting methods, coping mechanisms and relapse prevention with other people who are trying to quit or cut down on smoking cannabis.

For information on groups in your area, call the Alcohol and Drug Information Service in your State – see the rear cover for details.

The National Drug and Alcohol Research Centre (NDARC) has produced a booklet, *Marijuana – A Guide to Quitting*, which outlines some strategies for quitting cannabis smoking. For a copy of this booklet, call NDARC on 02 9398 9333.

The information in this article was compiled from the following sources:

Mulling it Over: Health Information for People Who Use Cannabis, Annie Bleeker and Annie Malcolm, Manly Drug Education and Counselling Centre, January 1998

Multidisciplinary Association for Psychedelic Studies Newsletter, Volume 6, Number 3, Summer 1996

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