

GP guidelines for the assessment and management of cannabis use disorder

identifying cannabis users

While cannabis is the most commonly used illicit drug, few patients will present directly requesting assistance in managing their cannabis use or related conditions. Research has shown that cannabis users recognize and support the role of GPs in the active, opportunistic assessment and management of their cannabis use.

For this reason, it is important to identify high-risk groups for brief assessment and advice.

the groups at higher risk of having cannabis use disorder include:

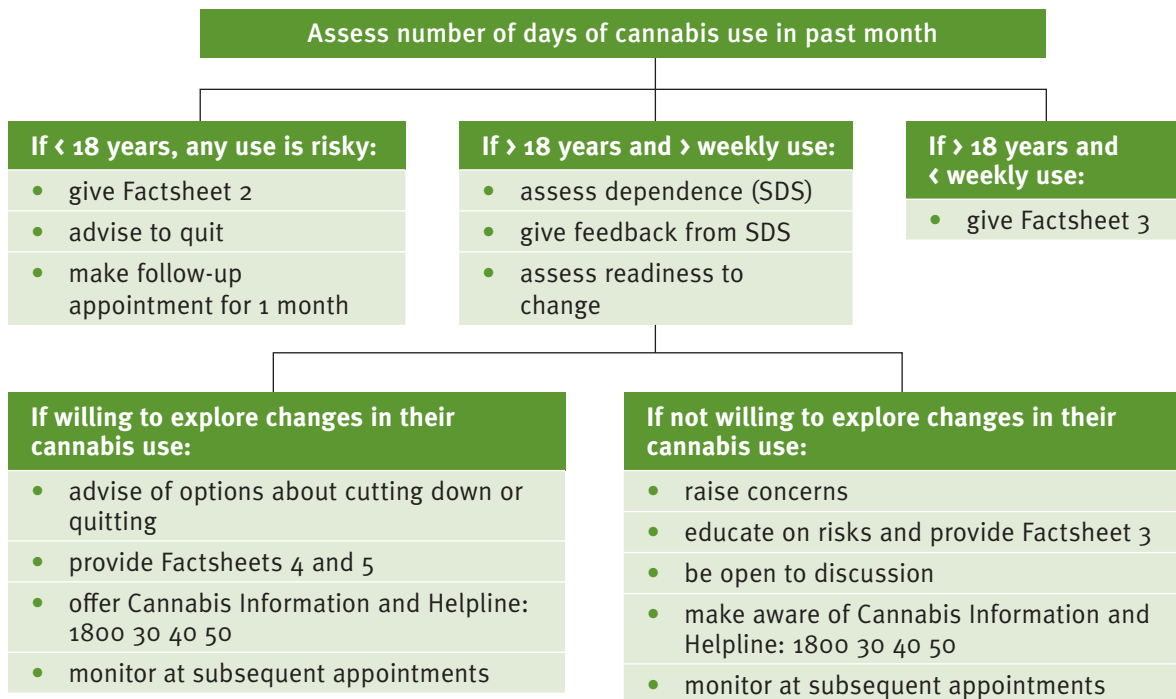
- those aged under 40 years
- males
- tobacco smokers
- patients with mental health conditions
- patients presenting with chronic respiratory tract symptoms/infections not otherwise explained including chest pain

The flow chart on page 2 sets out the steps in the assessment and brief management of cannabis-related problems. The Severity of Dependence Scale (SDS) follows it, along with scoring and suggested feedback.

As few patients come to the surgery thinking about changing their cannabis use, they may require some time to take in the information and make a commitment to change. Be supportive of this process and encourage them to return when they are ready to explore with you making changes in their cannabis use. They may only be ready to cut down at first but any change is positive and supports further reduction.

Where you suspect cannabis use may be indicated:

- ask the patient about the frequency of their cannabis use
- if they are less than 18 years they are at elevated risk of poorer educational and mental health outcomes at even low levels of use, so provide them with the Adolescent Risks Factsheet, advise them to quit and refer to the Cannabis Information and Helpline 1800 30 40 50, or if they ask for specialist care, to ADIS if you aren't aware of appropriate local services. Arrange a follow-up appointment to re-assess
- if your patient is using cannabis more than weekly and is willing to answer further questions, proceed to the 5 item SDS. Feedback the score and advise them that a score of 3 or more indicates they are dependent on cannabis. Words are suggested for eliciting their feelings about this information
- assess their willingness to explore making changes in their cannabis use
- follow flow chart's suggested advice, relevant factsheets, 1800 30 40 50 and other referrals and follow-up



severity of dependence scale (SDS)

These are the questions that make up the Severity of Dependence Scale. Tick the patient's response and add up the score out of 15.

In the last month:

- 1 Did you ever think your use of cannabis was out of control?

Never or almost never	<input type="checkbox"/>	0
Sometimes	<input type="checkbox"/>	1
Often	<input type="checkbox"/>	2
Always or nearly always	<input type="checkbox"/>	3

- 2 Did the prospect of missing a smoke make you very anxious or worried?

Never or almost never	<input type="checkbox"/>	0
Sometimes	<input type="checkbox"/>	1
Often	<input type="checkbox"/>	2
Always or nearly always	<input type="checkbox"/>	3

- 3 Did you worry about your use of cannabis?

Not at all	<input type="checkbox"/>	0
A little	<input type="checkbox"/>	1
Quite a lot	<input type="checkbox"/>	2
A great deal	<input type="checkbox"/>	3

- 4 Did you wish you could stop?

Never or almost never	<input type="checkbox"/>	0
Sometimes	<input type="checkbox"/>	1
Often	<input type="checkbox"/>	2
Always or nearly always	<input type="checkbox"/>	3

- 5 How difficult would you find it to stop or go without?

Not difficult	<input type="checkbox"/>	0
Quite difficult	<input type="checkbox"/>	1
Very difficult	<input type="checkbox"/>	2
Impossible	<input type="checkbox"/>	3

SDS Score	Dependence rating
0-3	nil or negligible
4-6	mild
7-9	moderate
10-12	substantial
13-15	severe

SDS score _____ /15, indicating a _____ level of dependence



Feedback from SDS:

e.g. 13/15

“what do you think that means where a score of 3 or more indicates cannabis dependence?”

Suggested questions in assessing readiness to change include:

“would you like to talk more about your cannabis use?”

“would you like some assistance to manage your cannabis use?”

when to refer

- severe dependence (12+)
- severe psychiatric comorbidity
- risk of harm to self or others
- significant polydrug use
- patient’s desire for specialist treatment
- history of failed GP management

in summary:

The important steps are:

- to assess frequency of cannabis use
- if more than weekly, assess dependence
- feedback to the patient their levels of use, dependence status and any other concerns they may raise during the consultation e.g. “*you tell me you are using cannabis most days of the week*”, “*your score indicates you are moderately dependent on cannabis*”, “*you’ve told me that you are sick of your partner nagging you about smoking and you’ve always got this cough*”
- be positive, non-judgemental and support the patient’s capacity to change their cannabis use
- explore willingness to make those changes
- provide appropriate information sheets which contain NCPIC web address for further resources and the free national 1800 30 40 50 Cannabis Information and Helpline if they have any questions
- refer to other services as required e.g. local ADIS for specialist referral
- monitor and follow-up at subsequent visits

adolescent risks

If you use cannabis early in life (before the age of 16 years), especially if you use a lot or for a long time, you are at a much higher risk of developing serious problems as a result.

how many young people use cannabis?

Cannabis is the illicit drug most likely to be used by young people. Even so, of people aged 14-19 years, only 20% have ever used cannabis. Even fewer of them (12.9%) have used it in the last 12 months. While the proportion of students using cannabis has decreased in recent years, use is not uncommon among secondary school students, especially amongst older males. While boys in that age group were more likely to have used cannabis than girls in the past, the rates of use are now the same.

what are the concerns about young people using cannabis?

Adolescence is a time when many important changes take place in your development. Your intellectual abilities increase and your relationships with friends become more and more important. Using cannabis during this time has been linked to a range of developmental and social problems.

starting cannabis use early on can have a bad effect on your:

- memory, attention and learning
- school performance, attendance and level of qualifications attained
- relationships and behaviour

using cannabis at an early age is also linked to higher risk-taking behaviour such as:

- higher levels of leaving home
- becoming sexually active too early, which can result in unplanned pregnancy
- getting in trouble with the law, e.g. stealing cars and breaking into houses to pay for drugs

using cannabis while young can put you at a higher risk of:

- many mental health problems such as psychosis, depression or anxiety
- problems with your emotional development
- becoming more dissatisfied with your life



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other concerns about early use of cannabis by young people:

- cannabis is illegal in Australia, as it is in most countries in the world. It is an offence to cultivate, possess, use, sell or supply cannabis. Doing so could result in a caution, a criminal record or even a prison sentence, depending on the type of offence and which state it was committed in
- regular and long-term cannabis use can lead to dependence, especially for young people
- using cannabis has been linked to low motivation, i.e. not wanting to get out there and do things, which can have a bad effect on your school, work, family, friends and life in general
- the cost of using cannabis can lead to money problems

cannabis: what are the risks?

Like alcohol and other drugs, most people who try cannabis, use it only occasionally and lose interest in it by the time they reach their 20s.

Some people, however, find that they are in a habit of regular cannabis use and have begun to experience some problems associated with its use.

People who are more at risk of developing problems as a result of their cannabis use include those who:

- begin smoking cannabis before the age of 18 years
- have a history of other alcohol or drug problems
- have a history of mental health problems

To follow are brief descriptions of some of the problems that might be experienced by regular and/or heavy cannabis users. You might consider whether any of these are relevant to you if your doctor has raised his/her concerns with you.

dependence

Historically, cannabis was not seen as a drug of dependence in the same way as heroin or alcohol, but cannabis dependence is now well recognised and has a strong body of evidence.

how would I know if I was dependent?

Dependence on cannabis means that the person needs to use cannabis just to feel 'normal'. In order to be diagnosed as cannabis dependent, a person needs to experience at least three of the following in the one year:

- tolerance to the effects of cannabis (that you need more cannabis to get the same effect)
- withdrawal symptoms when you stop using cannabis, such as irritability, poor appetite, trouble sleeping and feeling depressed
- using more cannabis than you intend
- persistent desire to stop taking cannabis or to cut down and being unsuccessful at this
- spending lots of time obtaining, using or recovering from the use of cannabis
- giving up important activities in favour of using cannabis
- using cannabis even when you know it is causing you problems

how common is the problem?

It has been estimated that there are at least 200,000 people dependent on cannabis in Australia. About one in ten people who have tried cannabis at least once in their lifetime will become dependent on the drug. The more often you use cannabis the more likely you are to become dependent. If someone uses cannabis every day, then they have a 50/50 chance of becoming dependent. Young people develop cannabis dependence more quickly than adults and daily users have even higher rates of dependence than adults.



why does it matter?

People who are dependent on cannabis are at a higher risk of suffering from the negative consequences of using the drug, such as short-term memory impairment, mental health problems and respiratory diseases (if cannabis is smoked).

Evidence is growing of the association between cannabis use and a range of psychotic symptoms and disorders such as feelings of paranoia and schizophrenia. Evidence suggests that cannabis may somehow trigger schizophrenia in those who are already at risk of developing the disorder. Those with a vulnerability to develop schizophrenia, such as having a family history of the illness, are strongly advised against using cannabis for this reason. The use of cannabis also makes the course of an episode of schizophrenia, longer, more severe and difficult to treat. People with psychotic disorders such as schizophrenia and bipolar affective disorder are strongly advised to avoid cannabis use.

The relationship between cannabis use and the more common mental health problems of depression and anxiety is not as clear. Cannabis may seem to help ease depression before the effects of the drug wear off, however, smoking cannabis is more likely to make depression worse overall. Those who use cannabis have been shown to have higher levels of depression and depressive symptoms than those who do not use cannabis. Although results are mixed, there is a substantial amount of evidence to suggest that cannabis use, particularly frequent or heavy use, predicts depression later in life. Young women appear to be more likely to experience this effect.

Cannabis can lead to symptoms of anxiety in the short-term, but there is a lack of evidence pointing to cannabis as an important risk factor for chronic anxiety disorders.

Regular use and dependence also leads to problems with finances, conflict in relationships with family and friends, and employment problems. For young people in particular, studies are increasingly clear that cannabis use before the age of 18 years seriously disrupts educational achievement, which can have a negative impact throughout a person's life.

is there any treatment for cannabis dependence?

There are a number of treatment options available for cannabis-dependent people to cut down or quit. It has been found that even a single session with a counsellor can assist the cannabis-dependent person to bring about significant improvements in their level of use and well being. As yet, there are no effective pharmacological treatments to help reduce cannabis withdrawal symptoms or to block the effects of cannabis.

There are booklets available from the website below that can provide helpful tips to manage your cannabis use.

NCPIC is currently running some [treatment studies](#) in order to assist those wishing to cut down or quit their cannabis use. These are the Cannabis Information and Helpline treatment study (1800 30 40 50) or email Peter Gates (p.gates@unsw.edu.au), and the web-intervention study: Reduce Your Use (reduceyouruse@med.unsw.edu.au).

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For more help or information please visit the National Cannabis Prevention and Information Centre website at: www.ncpic.org.au or call the Cannabis Information and Helpline on 1800 30 40 50

dependence

Not everyone who uses cannabis will become dependent. Some people, however, will use cannabis for longer and more often, and become dependent on the drug. Historically, cannabis was not seen as a drug of dependence in the same way as heroin or alcohol, but cannabis dependence is now well recognised in the scientific community.

what is cannabis dependence?

Dependence on cannabis means that a person needs to use cannabis just to feel 'normal'. In order to be diagnosed as cannabis dependent, a person needs to experience at least three of the following in the one year:

- tolerance to the effects of cannabis, meaning that more cannabis is needed to get the same effect
- withdrawal symptoms when stopping cannabis, such as irritability, poor appetite, trouble sleeping and feeling depressed
- using more cannabis than was intended
- persistent desire to stop taking cannabis or to cut down and being unsuccessful at this
- spending lots of time obtaining, using or recovering from the use of cannabis
- giving up important activities in favour of using cannabis
- using cannabis even when it is known that it is causing problems

what are the consequences of being dependent on cannabis?

People who are dependent on cannabis are at a higher risk of suffering from the negative consequences of using the drug, such as short-term memory impairment, mental health problems and respiratory diseases (if cannabis is smoked). Regular use and dependence also leads to problems with finances, conflict in relationships with family and friends, and employment problems.

how many people become dependent on cannabis?

It has been estimated that there are at least 200,000 people dependent on cannabis in Australia. About one in ten people who have tried cannabis at least once in their lifetime will become dependent on the drug. The more often you use cannabis the more likely you are to become dependent. If someone uses cannabis every day, then they have a 50/50 chance of becoming dependent. Young people develop cannabis dependence more quickly than adults.

who are most at risk of being dependent on cannabis?

The earlier a person starts using cannabis, and the more they use, the more likely they are to become dependent. Males have higher rates of cannabis dependence than females, as they are more likely to use the drug.



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is there any treatment for cannabis dependence?

There are a number of treatment options available for cannabis-dependent people to cut down or quit. It has been found that even a single session with a counsellor can assist the cannabis-dependent person to bring about significant improvements in their level of use and wellbeing. As yet, there are no effective pharmacological treatments available to help reduce cannabis withdrawal symptoms or to block the effects of cannabis.

cannabis withdrawal syndrome: patient information

Many regular cannabis users are likely to experience some withdrawal symptoms, while others may have little or no discomfort upon stopping use. For many users, the psychological symptoms are most difficult. There are also a number of physical symptoms that can be uncomfortable but are not dangerous.

common symptoms	less common symptoms
anger	chills
aggression	stomach pains
irritability	shakiness
nervousness/anxiety	sweating
appetite changes	depressed mood
restlessness	
sleep difficulties	
strange dreams	

Withdrawal symptoms are actually signs that the body is recovering and readapting to being cannabis free, therefore withdrawal symptoms are positive signs of recovery. Generally speaking, withdrawal symptoms resolve within five to ten days. Some symptoms like developing good sleeping patterns generally take longer.

quitting tobacco at the same time

Many people who smoke cannabis, either smoke tobacco or mix tobacco in with their cannabis. If you mix tobacco in with cannabis, it is likely that some of your withdrawal symptoms are caused by tobacco withdrawal.

Being in withdrawal from both doesn't mean that it will be twice as hard or bad and research tells us that it is better to quit both tobacco and cannabis simultaneously. If you are worried about your ability to quit both tobacco and cannabis at the same time, discuss possible nicotine replacement treatments with your doctor.

treatment options

There are a number of drug treatment options available in Australia. Some treatment options include counselling, support groups and education groups. You can also call the Cannabis Information and Helpline on 1800 30 40 50 or contact your local Alcohol Drug Information Service. At this stage, there are no medications available to help specifically with cannabis withdrawal, although your GP may recommend medication for other issues like low mood or sleeping difficulties. This will depend on your individual situation.

monitoring withdrawal symptoms

You might like to copy and use this table to monitor your withdrawal symptoms over the course of one week by placing a tick in the space next to each symptom. You will see that the number and severity of symptoms reduce quite quickly.

symptoms	mild	moderate	severe
depressed mood			
changes in appetite			
sleep difficulty			
sweating/night sweats			
cravings for cannabis			
restlessness/irritability			
aggression/anger			
headaches			

managing withdrawal symptoms

Develop a withdrawal management plan with a friend, family member or counsellor.

This may include:

- remove all smoking implements to remove temptation
- make an extra effort to eat well and do some gentle exercise
- write down the pros and cons of quitting, and display this somewhere where you will look at it often
- don't plan too much for the first few weeks after quitting
- find a friend or someone who will support you and help distract you from the urges
- try not to beat yourself up if you have a lapse
- plan a reward for yourself once you have achieved your goal

pros of quitting/cutting down	cons of quitting/cutting down
1	1
2	2
3	3
4	4
5	5
6	6

Make an appointment to see your doctor to monitor your progress and develop strategies to consolidate and build on your success.

NCPIIC is currently conducting a [Cannabis withdrawal study](#) on the experiences associated with cannabis use and quitting. Please contact Dr David Allsop for more information and eligibility criteria (cannabiswithdrawal@unsw.edu.au).

For more help or information please visit the National Cannabis Prevention and Information Centre website at: www.ncpic.org.au or call the Cannabis Information and Helpline on **1800 30 40 50**

cannabis withdrawal syndrome: GP information



Clinical studies over the last decade have produced evidence for a ‘cannabis withdrawal syndrome’. The proportion of clients reporting cannabis withdrawal in treatment studies has ranged from 50-95%. The following symptoms are the most commonly experienced:

common symptoms	less common symptoms
Mood	Physical
anger	chills
aggression	stomach pains
irritability	shakiness
nervousness/anxiety	sweating
Behavioural	Mood
decreased appetite or weight loss	depressed mood
restlessness	
sleep difficulties	
strange dreams	

the clinical consequences of cannabis withdrawal

Cannabis withdrawal symptoms can adversely affect quit attempts with some users reporting using cannabis or other drugs to relieve symptoms.

Although this syndrome does not appear to include major medical or psychiatric consequences, its severity appears comparable to tobacco withdrawal.

severity and length of symptoms

Most symptoms peak 2-6 days after cessation. The symptoms that take longer (some weeks) to subside include sleep disturbances (including disturbing nightmares) and mood disturbances such as irritability. It should be noted that many cannabis users use other drugs such as tobacco and alcohol. If the patient is also giving up tobacco, nicotine replacement therapy may also be recommended.

pharmacotherapy for cannabis withdrawal

A number of small human laboratory studies on potential pharmacotherapies for cannabis dependence have appeared in the literature. Bupropion, divalproex, lofexidine, naltrexone, nefazadone, mirtazapine, lithium and oral THC have been explored but none have an adequate evidence base. Some agents such as bupropion and divalproex exacerbate withdrawal symptoms.

There is support for further testing of agonist (THC) approaches and their use in combination with other medications such as lofexidine. Antagonist therapies have yet to receive adequate attention however, both cannabinoid and opioid antagonists appear to warrant more study.

The cannabis antagonist Rimonobant, has been removed from the US market as a result of adverse events including suicidal ideation.



cannabis withdrawal syndrome: GP information factsheet 6

In summary, there are currently no evidence based pharmacotherapy treatments for cannabis withdrawal. It should also be noted that anti-depressants may exacerbate symptoms of cannabis withdrawal.

symptom focused approach

There is no evidence for symptoms-focused treatment of withdrawal management. Despite the lack of evidence, it may be appropriate to prescribe short-acting benzodiazepines for withdrawal-related anxiety.

caution

- prescription of benzodiazepine is not recommended for adolescents. Consultation with specialist services is recommended
- any prescription of benzodiazepines should be short-acting, no more than 7 days' supply and monitored carefully

Psychosocial interventions (non-pharmacological approaches) are highly recommended for cannabis withdrawal management. There is growing evidence for psychosocial interventions generally, and the risks are considered minimal. Areas that have a strong evidence base generally include sleep hygiene, progressive muscle relaxation, meditation, exercise and family support.

psycho-education of withdrawal symptoms

Psycho-education about withdrawal symptoms is important for patients to help with managing expectations.

Consider giving the patient: “What’s the deal on quitting? A do-it-yourself guide to quitting cannabis” booklet, available from <http://www.ncpic.org.au>

Referral to inpatient management of cannabis withdrawal may be warranted where the individual has:

- repeatedly failed attempts to abstain
- has experienced exacerbation of mental health disorders while undergoing withdrawal
- has no social support

concurrent tobacco use

For clients who smoke cannabis and use tobacco (independently or mixing), the evidence indicates that there are better outcomes associated with quitting both tobacco and cannabis simultaneously. However, inability or client preference to continue tobacco use should not be a barrier to accessing or continuing cannabis treatment.

For more help or information please visit the National Cannabis Prevention and Information Centre website at: www.ncpic.org.au or call the Cannabis Information and Helpline on **1800 30 40 50**

cannabis and mental health



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The link between the use of cannabis and mental health problems is an issue that receives a great deal of attention in the research and general media. Although severe illnesses such as schizophrenia have received a large portion of this attention, there is also debate about whether the use of cannabis can lead to more common psychiatric disorders such as depression and anxiety.

There have been a number of studies that have explored the link between cannabis use and mental health symptoms. Strong associations are often found but this is not the same as a causal link. Overall, any cannabis use increases the risk of experiencing psychotic symptoms by 40%.

does smoking cannabis cause schizophrenia?

There have been reports of people experiencing psychotic symptoms after smoking a lot of cannabis or more cannabis than they are used to. This is rare and the symptoms, although frightening at the time, usually go away if use of cannabis is stopped. Cannabis has been shown to make psychotic symptoms worse in those who already have a psychotic disorder such as schizophrenia.

Some claim that cannabis can cause schizophrenia. Evidence suggests that cannabis may somehow trigger schizophrenia in those who are already at risk of developing the disorder. Those with a vulnerability to develop schizophrenia, such as having a family history of the illness, should be strongly advised against using cannabis for this reason.

does smoking cannabis cause depression or anxiety?

The link between cannabis and other more common mental health disorders such as depression and anxiety is confusing, because often cannabis is used in an attempt to relieve symptoms of depression and anxiety.

Cannabis may seem to help ease depression before the effects of the drug wear off; however after that, smoking cannabis may make depression worse. Those who use cannabis have been shown to have higher levels of depression and depressive symptoms than those who do not use cannabis. Although results are mixed, there is a substantial amount of evidence to suggest that cannabis use, particularly frequent or heavy use, predicts depression later in life. Young women appear to be more likely to experience this effect.

Cannabis can lead to symptoms of anxiety in the short-term, but there is a lack of evidence pointing to cannabis as an important risk factor for chronic anxiety disorders.

are some people more at risk than others?

Generally speaking, those who start smoking cannabis earlier (early adolescence) and smoke heavily are more likely to experience negative consequences. This may in turn lead to mental health problems, but also lead to more general life problems, such as conflict at home or school/work, financial problems and memory problems.



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Again, if someone has a genetic vulnerability or has existing mental health issues, cannabis should be avoided.

what help is available?

Drug and alcohol services and mental health services are available in most areas of Australia and ideally, a coordinated approach that will tackle both issues at the same time can be arranged. Medication is available to assist with symptoms and this can be managed by a skilled general practitioner or psychiatrist. Additionally, there are some psychologists and social workers who may have specific training in the management of co-occurring mental health and cannabis problems.

key messages on cannabis

is cannabis more potent than it used to be?

On the available evidence it would appear that the strength of cannabis has increased to some extent over the last 25 years. The reported changes in strength may be partially explained by different patterns of use and the increased availability of the stronger part of the plant. It should be noted that:

- potency data is not routinely collected in Australia so it cannot be determined whether the cannabis used here in Australia has become more potent over time
- reported changes in strength could be due to changes in patterns of use, i.e., people are more likely to smoke the stronger part of the plant – the ‘heads’
- in the USA, THC levels of cannabis have risen over the last 25 years, from about 4% in 1983 to 9% in 2007
- in New Zealand, the potency of THC has not changed
- in Europe, cannabis potency has remained the same in some countries and increased in others

can cannabis cause violence?

Cannabis is less likely to cause violence than other drugs such as alcohol or amphetamines. Cannabis users who commit violent acts typically have a history of violence before they first use the drug. Cannabis withdrawal may cause aggressive behaviour because of the irritability associated with it.

does cannabis cause people to become ‘demotivated’?

A lack of motivation is often reported by cannabis users. This is more likely to be due to the regular user being depressed and/or chronically intoxicated rather than a particular effect of use.

- the ‘amotivational syndrome’ can be characterized by a loss of interest, being less productive, having difficulty in carrying out long-range plans, tiredness, depression, and difficulties with concentration and attention
- it is commonly reported among those in cannabis treatment but not among cannabis users generally

what are the effects of passive cannabis smoking?

Cannabis smoke contains many of the dangerous substances and in higher amounts that are found in tobacco smoke, such as tar, carbon monoxide and cancer-causing chemicals, and can therefore cause similar problems to those experienced by passive tobacco smokers.

Traces of cannabis can be found in body fluids as a result of passive cannabis smoking.

- a recent study compared tobacco and cannabis smoke and found that directly inhaled cannabis smoke contained 20 times as much ammonia and 5 times as much hydrogen cyanide as tobacco smoke. Nitrogen oxides were five times as concentrated in cannabis smoke



key messages on cannabis factsheet 8

- it also measured the chemicals found in ‘sidestream smoke’, which would account for 85% of the smoke inhaled during passive exposure. It found that it contained higher concentrations of almost every chemical measured than inhaled smoke

is cannabis a gateway drug?

Most people who use illicit drugs, first used drugs like alcohol, tobacco or cannabis. However, the vast majority of people who use cigarettes, alcohol or cannabis never use other illegal drugs, e.g. only 4% of cannabis users have ever used heroin.

Cannabis use, however, particularly regular use at a younger age, increases the risk of other drug use.

- most users of heroin or amphetamines first used cannabis
- there is a greater risk of other illicit drug use and dependence among those who begin cannabis use in early adolescence

The link between cannabis use and the use of other illicit drugs is usually due to personal traits that make it more likely for the person to take part in risky behaviour, e.g. associating with drug using peers.

what do we know about mixing alcohol and cannabis together?

If more than one drug is used at one time, the more unpredictable are the effects. This is the case when alcohol and cannabis are used together. Having alcohol in a person’s blood can cause more THC to be absorbed into the blood, leading to an unpleasant effect. It also compounds the negative effect on driving performance and other motor skills.

For more help or information please visit the National Cannabis Prevention and Information Centre website at: www.ncpic.org.au or call the Cannabis Information and Helpline on **1800 30 40 50**

cannabis use and fertility, pregnancy and breastfeeding

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Cannabis is the most commonly used illicit drug by women who are pregnant.

Even though there has been little research into the effects of cannabis use upon the unborn child, it is strongly recommended that pregnant women do not use alcohol or any other drug due to the potential harmful effects on the developing baby.

can cannabis use affect fertility?

Heavy use of cannabis has been linked to decreased fertility in both men and women.

In females, there is evidence that cannabis use may disrupt the menstrual cycle. In males, cannabis is thought to decrease sperm quality and production and testosterone levels. It has also been shown to decrease the ability of sperm to move quickly and has been linked to sperm abnormalities. These factors can make it difficult for a woman to become pregnant.

can cannabis use affect pregnancy?

THC (delta-9-tetrahydrocannabinol), the principal psychoactive ingredient in cannabis, is known to pass from the mother to the developing foetus through the placenta, increasing the risk of complications.

Any form of smoking can disrupt the supply of oxygen and nutrients to the foetus, which can result in premature birth. Women who smoke cannabis even once a week are more likely to give birth to babies with a lower birth weight, which may place the child at a higher risk of developing breathing problems and possible infections. Other risks can include reduced foot length, head circumference and body length.

There is evidence of the damage caused by smoking tobacco during pregnancy, including:

- miscarriage
- still-birth
- Sudden Infant Death Syndrome (SIDS)

Because most people who smoke cannabis also smoke tobacco at the same time, it is believed that these complications could also occur if a woman smokes cannabis and tobacco during pregnancy.

can cannabis use affect the baby?

There is some evidence that babies born to women who use cannabis during pregnancy are more likely to startle, have higher levels of tremors and may not see as well compared to those babies who are not exposed to cannabis. These symptoms, however, are not evident after the first month. Other effects may include delays in the commencement of breathing at birth and a higher rate of defects in the walls of the heart.

Other studies have found that in the first six months of life, babies who have been exposed to cannabis in utero are also at greater risk of developing asthma, chest infections, and other breathing problems such as wheezing.



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can cannabis use affect breast milk?

When a breastfeeding mother uses cannabis, THC passes into the breast-milk and thus into the baby, where it can be stored in the baby's fatty tissue for several weeks.

Using cannabis while breastfeeding may cause the baby to be unsettled and disrupt feeding cycles. As a result, cannabis use should be avoided when breastfeeding.

can using cannabis impact on pregnancy care?

Other problems can be experienced by pregnant women using cannabis because they are less likely to disclose their use of cannabis to healthcare workers. The stigma associated with their use, as well as fear, guilt and shame about what they may have exposed their unborn baby to, may prevent these women from giving a full history to their obstetricians or midwives.

This may impact on the quality of care for both the woman and her developing baby as health care workers do not have a complete history.

what can your patient do?

If your patient is planning to become, or is pregnant and using cannabis, then it is a good time to advise them to stop using. If they have been using cannabis during their pregnancy, talk to them about their use and/or refer them for more specialized treatment to help them cut down or quit their cannabis use. There is no evidence that cannabis withdrawal increases the risk of miscarriage.



cannabis: what is it?

Cannabis is derived from the cannabis plant (*cannabis sativa*). It grows wild in many of the tropical and temperate areas of the world. It can be grown in almost any climate, and is increasingly cultivated by means of indoor hydroponic technology.

The main active ingredient in cannabis is called delta-9 tetrahydro-cannabinol, commonly known as THC. This is the part of the plant that gives the 'high'. There is a wide range of THC potency between cannabis products.

Cannabis is used in three main forms: marijuana, hashish and hash oil. Marijuana is made from the dried flowers and leaves of the cannabis plant. It is usually the least potent of all the cannabis products and is almost always smoked. Hashish is made from the resin (a secreted gum) of the cannabis plant. It is dried and pressed into small blocks and smoked. It can also be added to food and eaten. Hash oil, the most potent cannabis product, is a thick oil obtained from hashish. It is also smoked.

Cannabis is usually smoked in hand-rolled cigarettes (known as 'joints') or in special waterpipes ('bongs').

how many people use cannabis?

Cannabis is the most widely used illicit drug in Australia. According to the 2007 National Drug Household Survey, 33.5% of the Australian population reported using cannabis at some time, with 9.1% having used it in the last 12 months.

- 20% of 14-19 year olds reported ever using cannabis
- 49.5% of 20-29 year olds reported ever using the drug
- 54.6% of 30-39 year olds reported ever using the drug

other names for cannabis

Cannabis is also known as marijuana, grass, pot, dope, Mary Jane, hooch, weed, hash, joints, brew, reefers, cones, smoke, mull, buddha, ganga, hydro, yarndi, heads and green.

what are the short-term effects of cannabis?

The short-term effects of using cannabis may include:

- feeling of well-being
- talkativeness
- drowsiness
- loss of inhibitions
- decreased nausea
- increased appetite
- loss of co-ordination
- bloodshot eyes
- dryness of the eyes, mouth and throat
- anxiety and paranoia



what are the long-term effects of cannabis?

There is limited research on the long-term effects of cannabis. On the available evidence, the major probable adverse effects are:

- increased risk of respiratory diseases associated with smoking, including cancer
- decreased memory and learning abilities
- decreased motivation in areas such as study, work or concentration

There is also much concern about the link between cannabis use and mental health problems and the risk of dependence.