

ADULTS
ONLY!

The Sweet
PILL
Now MAKES LIFE
BITTER!

WOMEN CRY FOR IT -
MEN DIE FOR IT!

PRELUDER

Cannabis

WADNESSEE
SEE

**Cannabis Education,
Harm Reduction and
Interventions**

Distribution Copy
Fourth Edition: 07.10

DRUG-
CRATED
ABANDON

KFX
Learning of Substance

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When this pack was originally written, it was made available free of charge on the KFx website; readers were encouraged to make a donation to support the development of further free literature. Unfortunately, although the pack has been extensively downloaded, not a single organisation saw fit to make a donation. If you do find the resource useful, please consider making a donation.

This is the third update to the pack since it was first released in 2006.

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This pack adopts a harm-reduction approach to working with cannabis and is intended to be used as an education resource with cannabis users. It should be stressed that use of cannabis remains illegal and this document does not seek to encourage illegal behaviour.

Both drugs and legal information change frequently. Workers should always seek up-to-date advice. Kevin Flemen/KFx take no responsibility for errors and omissions in this pack or in the course or any consequences that may arise.

This pack updated July 2010. Thanks for all comments and feedback received to date. Please send comments, feedback etc to the contact details below:

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1: Introduction

Cannabis is the most widely used illicit substance. Many people who use it claim that use of cannabis has little or no risks. Some researchers and commentators argue that it is a highly dangerous substance and can have a devastating impact on physical and mental health.

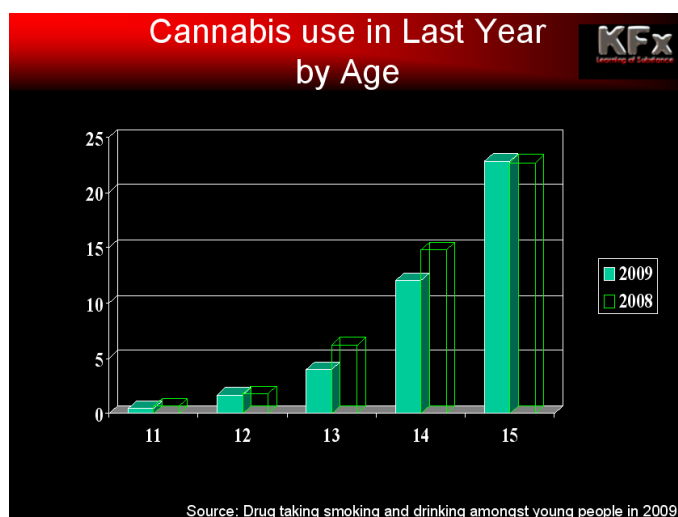
Amidst all this confusion, there is a paucity of accessible literature on cannabis use, especially from a harm reduction point of view. This resource pack looks at cannabis use in greater detail, explores some of the conflicting claims relating to the health risks, and explores strategies for harm reduction and cessation of use.

This pack is in no way intended to encourage use of cannabis. At present it remains a 'controlled drug' (meaning that it is restricted under the Misuse of Drugs Act 1971). However as it is so widely used anyone concerned about cannabis needs accurate, unsensationalised and detailed information about the drug.

2: Trends in cannabis use:

Statistics relating to cannabis use are hard to come by. Two studies in the UK routinely provide the best guesstimate of the extent of cannabis use: the British Crime Survey and the DoH's "Smoking, Drinking and Drug Taking Amongst Young People." Both studies may underestimate the true levels of substance use but at least they are regular and professionally executed studies.

The DoH study covers the age range 11-15, and the BCS 16-59. They are undertaken by different teams of researchers and use different research methods. So you shouldn't really try comparing the results from the one with the other. But if you so the finding would look something like this:



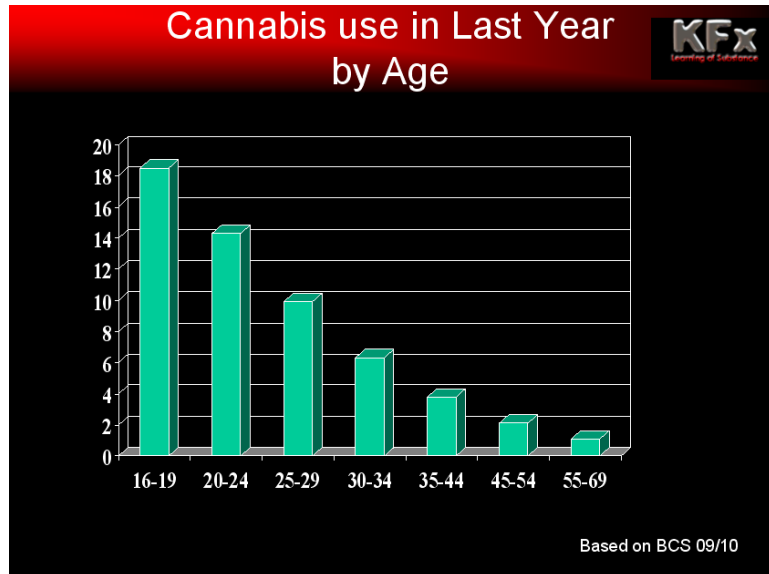
The first graph shows use in last year by age 15: it shows that 22.8% of 15 year olds say that they have used cannabis in the past year.

This represents an increase of 0.1% over 2007. This is an insignificant change; while use amongst 13 and 14 year olds has dropped, amongst 15 year olds it is unchanged compared to 2008. This suggests that the reclassification of cannabis and the accompanying media campaign has had no impact on cannabis use within this age-group.

Interestingly, the figure from the BCS for 16-19 year olds, looking at cannabis use in the last year is 18.5% - four percentage points lower than the 15 year-old group.

What this suggests is that the peak age for cannabis use in the UK is 15 after which it starts to decline.

While some people do start using after the age 15, this doesn't seem to be the norm.

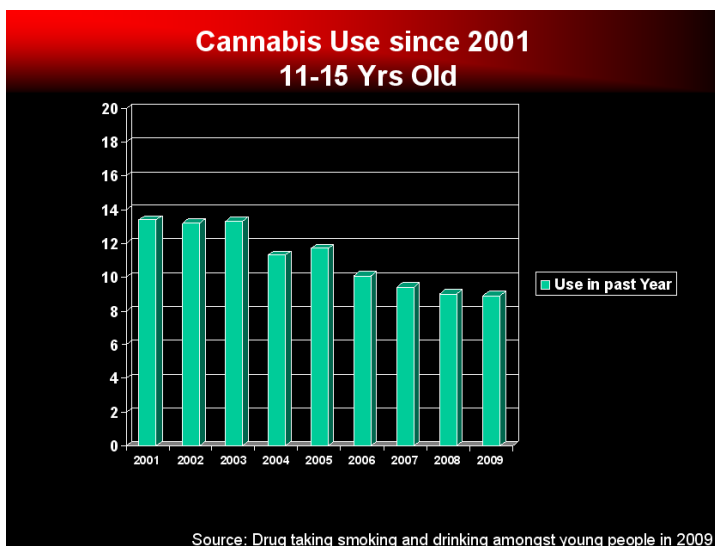


Less people appear to start using cannabis after 15 and so education and awareness interventions which are aimed at young people 16+ have missed the peak age of onset.

Long-term trends:

The overall levels of cannabis use amongst young people are quite high with just under a quarter of young people reporting use in the last year.

However, the overall trend has been a decrease in cannabis use across all ages, as illustrated in the graph below.

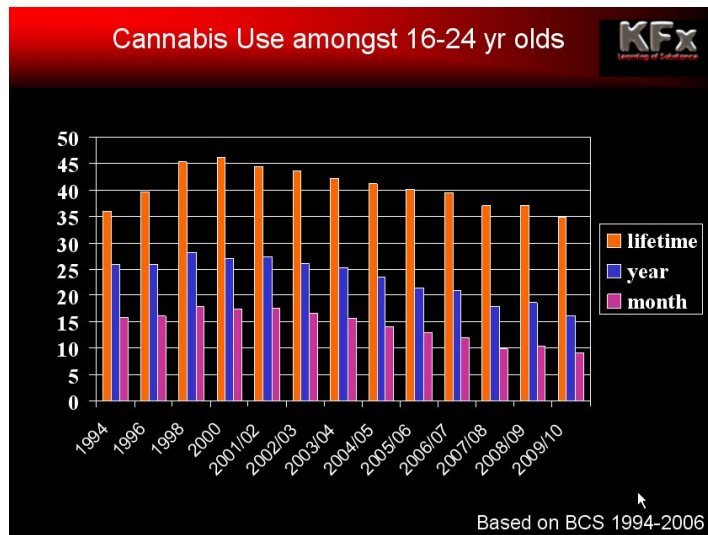


Looking at cannabis use amongst 11-15 year olds since 2003, the trend line is downwards, from just under 14% of 11-15 year olds reporting use in last year down to around 9%. This represents a significant drop.

This gives lie to the idea that cannabis use amongst young people is on the increase. And this isn't a trend restricted to the past two years or to young people. Looking at the wider trends, the overall pattern is downwards:

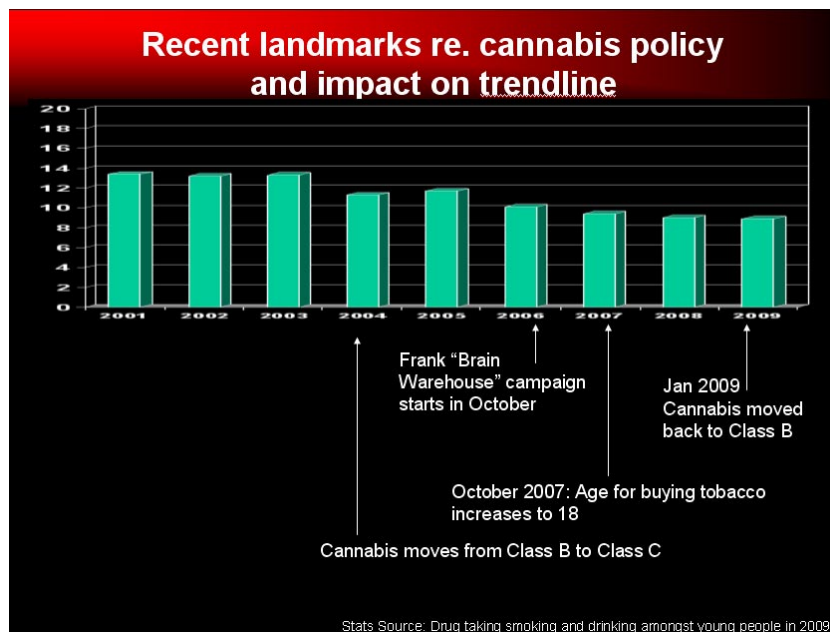
Cannabis use had increased, year on year, at least since 1994 though probably for longer than this. According to the British Crime Survey, which represents the most consistent set of samples in the UK, the proportion of people aged 16-29 who report lifetime use of cannabis has risen from 36% in 1994 to 46% in 2000.

According to the most recent studies (09/10) lifetime use amongst 16-24 year olds has declined to 35%. Importantly, this sustained decline appears to be a consistent trend since the peak in 2000.



Why has cannabis use declined?

There's no single explanation for the apparent decline in cannabis use. If the Government were to be believed, their investment in advertising via FRANK and drugs education in school have alerted people to the risks, and this has resulted in more people choosing not to use cannabis. This may have played a role.



Less likely is a slightly convoluted argument that goes by reducing cannabis to Class C, young people thought that Government messages about drugs generally and cannabis in particular were more credible...and therefore were more receptive to messages about cannabis risks. Even the most optimistic commentators find this hard to credit.

There is no evidence that there has been a shortage of cannabis over the past few years that would account for such a drop; indeed the opposite would appear to be true. So it's probably not scarcity related.

Some commentators have suggested that the drop in cannabis use is linked to an upsurge in other patterns of drug use.

Historically this probably wasn't the case. Trends in the use of other illicit drugs have not gone up (barring cocaine) and besides the vast majority of people who use another controlled drug in the last year will also have used cannabis in the past year.

However the recent increased interest in "legal highs" may have played a role in promoting a switch away from cannabis. It may be that while intoxicants such as Mephedrone and Spice were legal, some people were gravitating towards these products and away from cannabis. However, the advent and subsequent prohibition of these newer substances has happened too recently to affect the statistics under consideration.

In the same time frame that cannabis use has dropped down, levels of smoking amongst young people have also dropped. There is a significant level of correlation between cigarette smoking and cannabis smoking. For some cannabis use acts as a gateway to tobacco; for others cigarette smoking acts as a gateway to cannabis. But by reducing cigarette smoking amongst young people, it is likely that cannabis use will also be reduced. It is very likely that cannabis use will drop further in the next study published and this will probably be linked to the increase in the age at which tobacco can legally be purchased to 18.

Other credible explanations (in addition to the impact of educational campaigns) are (a) increased use of alcohol and (b) growing unpopularity of very strong cannabis.

This latter point may be less to do with educative messages and more that people who have experimented with cannabis have found it causing unpleasant effects such as anxiety and so deters a proportion of people from using cannabis again.

Finally, of late, cannabis prices in the UK have increased substantially and so some people may have elected not to pay inflated prices for low-quality cannabis.

3: Understanding the popularity of cannabis:

Cannabis is illegal; so why has it remained so popular with young people for such a long time? There is probably no single reason for this: certainly its popularity is not exclusively due to the effect that it has on users. While the experience of being 'stoned' is generally a fairly pleasant one, it is not so intensely enjoyable that it would end up being a 'must-do' experience for most people. So what does account for this popularity:

Effects:

The effects of cannabis certainly make it an appealing substance. For many users it imparts a sense of relaxation, wellbeing, and giddy happiness. While, for many people this feeling is, retrospectively, inane and foolish at the time it feels sufficiently good and real and satisfying that it is worth doing.

Cannabis allows the user to do little or nothing while at the same time feeling no sense of doing nothing. It gives the user the ability to sit quietly, enjoy music, untroubled by the sense of "*shouldn't I be doing something...*"

Rebel!

Whilst it is still illegal and socially frowned upon by more conservative elements, cannabis remains one of **the** tools of youth rebellion. Partly thanks to its illegal status and risky edge, cannabis is a way of stepping outside the rules, being bad. It brings with it its own language, jargon, customs and etiquette. The fact that a large number of adults have done it escapes most young hash rebels, of course.

Accessorize!

In the adolescent quest to develop ones own identity, cannabis offers a ready made chance to gain an off-the-peg identity. From base-ball cap down, there is so many chances to accessorize with cannabis. Hats, shirts, boxers, rings, pendants, posters, phone-covers, pipes, bongs, tins: there is a huge range of accessories for the young person who wants to be loud and proud about their drug use.

Tune in!

Cannabis and music have had a long synergistic relationship. And while each generations music seems alien to the generations above and below, cannabis is an important point of reference. Some music just references smoking; others go out of their way to highlight their cannabis credentials. And some music was just made for cannabis use.

Blow up aliens!

If cannabis and music have coexisted for decades, the new synergy for cannabis users seems to be video games; wide screen, 5.1 surround sound and a dark room while

playing shoot-em-ups. Hopefully ones which don't require too much lateral problem solving.

Look at me, look at me, look at me NOW!

Cannabis use can confer status; amongst young people, in part due to its naughtiness, it is a badge of status. Being one of the first to be a cannabis user is a mark of difference, in part unknown, part dangerous, partly alluring. And like any other dangerous, forbidden, alluring thing it attracts attention.

Being a source of cannabis is a source of status and wealth; being able to make spliffs well confers high status too. The prowess that comes with being a cannabis smoker with access to good drugs, who has somewhere where people can smoke and who can skin up is a combination that all but guarantees friends and a social life. And as such is something that young people aspire to.

Drop out!

And when all else goes wrong, cannabis can be there as the last salvation. Attempting to block out the unhappiness and the huge injustices of the world. Lying in a black-painted bedroom listening to My Chemical Romance, cursing the injustice of a world that misunderstands you and your brilliance, all the squares trying to make you conform. You'll show them! After this spliff. Maybe. Well later.... In fact cannabis can make anxiety, unhappiness and depressive symptoms worse so tends to make a poor escapist drug.

Compete!

Cannabis can serve a whole load of social functions, and one of these, unfortunately, is a way of developing social status. This could be through competitions – who can do the most pipes/bucket bong/lungs and so on until the victorious winner has a whitey, collapses on the floor, is sick and is immortalised doing so on Facebook or YouTube. What a result!

4: What they are

The Plants:

There are (probably) two primary strains of Cannabis plant. These are Cannabis Sativa (*C. Sativa*) and Cannabis Indica (*C. Indica*). After this there are many naturally occurring sub-strains of the plant found around the world, such as those occurring in South Africa (*C. Sativa var Durban*).

The cannabis plant has evolved to cope with a variety of different growing conditions – but its basics are the same: an annual plant with distinct male and female forms. The plant can contain a number of different compounds which act as drugs on people.

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These include THC – primarily responsible for euphoria, and CBD, a compound with more relaxing, anti-anxiety properties. These compounds are discussed in more detail in the next section.

Different plants will have compounds present in different quantities, and this will in turn mean that the strains can have markedly different effects, as will the method of use and the form in which the drug is consumed.

Over years of breeding, some deliberate and some accidental, a large number of hybridised strains of cannabis have been produced. By choosing to breed against a variety of factors, plants have been produced to maximise yield, and to maximise the potency of the plants.



Cannabis Sativa is a tall plant. The leaves are relatively slim and pointy, compared to *C. Indica*.

C. Sativa was reputed to contain higher levels of higher levels of THC and so produces a higher level of sensory and perceptual change. It makes for a less sedating, more energetic ‘high.’



Cannabis Indica is a shorter, more stocky plant with broader leaves. It was associated with higher levels of Cannabidiol (CBD) and lower levels of Tetrahydrocannabinol (THC), and so in theory makes for a more sedating, less trippy “high.” Tincture of *C. Indica* was the form of cannabis used as medicine in Victorian England.

By cross breeding different strains of the Cannabis plant, growers

selected characteristics of some of the strains to produce new **hybrids**. The outcome of this was the a hybrid dubbed the “**skunk**” plant, a plant which incorporated some of the characteristics of both. This included:

- a low stature-plant,
- larger flowers,
- shorter growing periods,
- higher THC content

After the initial cross-breeding, reputedly in the States, further cross breeding internationally resulted in many, many more hybrids emerging, especially in the Netherlands. These included strains such as *Jack Herer*, *White Widow*, *Early Girl*, *Purple Power*, *Purple Haze*, and numerous others. They vary according to ease of growing, suitability for indoor or outdoor growing, flavour, potency, and productivity.

At this stage, virtually all the cannabis plants cultivated in the UK are some sort of hybrid. Some media commentators describe skunk as “genetically modified” which is stretching definitions of hybridisation. Skunk emerged through selective cross-breeding, as do most crop plants in use around the world. It didn’t involve the introduction of genes from other plants or from other species. As such it’s not accurate to describe skunk as a GM plant.

The Active Ingredients

The active ingredients in cannabis are called **cannabinoids**. It may be helpful to stop thinking about the *cannabis plant* as a drug and instead think about the plant containing a number of *chemicals* which act as drugs. As the quantities and ratios of these chemicals can vary from plant to plant and product to product, so the effects will change.

So just as strictly tobacco isn’t a drug, but instead is a plant containing nicotine, so the cannabis plant contains chemicals.



Primary constituents

(-)-[delta 1]-3,4-trans-tetrahydrocannabinol (most active cannabinoid)
(-)-[delta 6]-3,4-trans-tetrahydrocannabinol
tetrahydrocannabinol (aka cannabitol)
cannabidiolic acid
cannabidiol
cannabinol (forms after plant dies)
THC acids A and B (inactive unless smoked)

Minor constituents:

Cannabigerol, cannabigerolic acid, cannabichromene, cannabichromenic acid, cannabicyclol (aka cannabipinol), cannabicyclolic acid, cannabicitran, cannabielsoic ,Acids A and B, cannabinolic acid (neutral cannabinoid), cannabichromanon, cannabifuran, dehydrocannabifuran, 2-oxo-[delta 3]-tetrahydrocannabinol, cannabigerol monomethyl ether, cannabidiol monomethyl ether, cannabinol methyl ether, propylcannabidiol (aka cannabidivarol & cannabidivarin), propylcannabinol (aka cannabivarol & cannabivarin), propyl-[delta 1]-THC (aka [delta 1]-tetrahydrocannabivarol & tetrahydrocannabivarin), propylcannabigerol, propylcannabicyclol, propylcannabichromene, methylcannabidiol (aka cannabidiorcol), methylcannabinol (aka cannabiorcol), methyl-[delta 1]-THC (aka [delta 1]-tetrahydrocannabiorcol), [delta 1]-tetrahydrocannabivarolic acid

Nitrogen-containing compounds:

Choline, trigonelline, muscarine, piperidine, N-(p-hydroxy-B-phenylethyl)-p-hydroxy-trans-cinnamide, neurine, L-proline, L-isoleucine betaine, hordenine, cannabisativine (alkaloid found in the roots)

The chemical which was the centre of attention was Δ -9 tetrahydrocannabinol – usually shortened to THC.

However increasing attention is now being given to other compounds present in cannabis, especially **Cannabidiol** – CBD.

In addition there are more than forty other compounds present in the cannabis plant. Many of these have not yet had their effects fully mapped.

THC and CBD

Keeping the focus on THC and CBD is probably the most useful thing to do for most people with an interest in cannabis. While the other chemicals present almost certainly play a role in how cannabis is experienced, the substances which are being subject to the most close scrutiny at present are THC and CBD.

THC has generally been assumed to be the most significantly psychoactive chemical present in the cannabis plant. THC was thought to be responsible for the euphoria and mood elevation. It was also most strongly associated with changes to sensory perception – the mildly hallucinogenic properties of cannabis. As THC was so strongly associated with the pleasant aspects of cannabis use, cannabis breeders and producers, and cannabis purchasers, focussed on the levels of THC and high THC levels became a sought-after quality.

CBD had, in comparison not been such a highly valued component. Typically it had been associated with a sense of relaxation and drowsiness. For some this was a good thing, but for others it was less desirable, leaving people stuck on the sofa, unable to talk, in a “goldfish bowl,” where one could watch things going on but would struggle to engage.

So cultivation of cannabis ended up pushing THC levels higher but CBD levels were consequently pushed down.

More recent research has looked in more detail at CBD. This research, by the Institute of Psychiatry and others has looked at the impact of THC and CBD used on their own, and in combination.

The research increasingly suggests that the **presence of high levels of THC** and the **absence of significant amounts of CBD** can result in cannabis which **brings a higher level of risk, and more unpleasant side effects** during use.

This research suggests that while THC acts as a euphoriant, it may also cause some of the unpleasant side effects some users experience such as anxiety, panic attacks and feelings of paranoia. There is a growing belief that CBD acts to moderate and reduce these negative side effects. So cannabis which contains THC with moderate levels of CBD may be as (if not more enjoyable) with a reduced risk of negative symptoms.

One of the more widely publicised examples of this research was a trial shown on the British Television Programme “Should I Smoke Dope” (BBC3, May 2008) in which journalist Nicky Taylor takes part in a trial at the Institute of Psychiatry. She is injected on separate occasions with pure THC, and a cocktail of THC and CBD. While she finds the cocktail of THC and CBD intensely pleasant and causes hilarity, the pure THC causes intense dysphoria and psychotic-type symptoms.

While it should be stressed that direct comparisons should not be drawn between injecting THC in controlled settings and smoking cannabis containing a range of compounds in normal settings, the programme and the wider research suggest that role of CBD is far more significant than had previously been considered.

Unfortunately, due to selective breeding, growing techniques and a competitive upping of the stakes for high potency THC most of the herbal cannabis on sale in the UK is relatively high in THC and low in CBD, a combination which may cause more negative symptoms in some users.

And of course, as cannabis is only available via an illegal and unregulated market, it isn't possible for anyone buying it to know what the THC/CBD make up of their cannabis is.

According to research on behalf of the Home Office, cannabis potency was as follows:

“The mean THC concentration (potency) of the sinsemilla samples was 16.2%. (range = 4.1 to 46%). The median potency was 15.0%, close to values reported by others in the past few years...the CBD content of herbal cannabis was less than 0.1% in nearly all cases.”

HOME OFFICE CANNABIS POTENCY STUDY 2008
Sheila Hardwick, Leslie King
Home Office, 2008

Is Cannabis stronger now than ever before?

Depending on which paper you read, cannabis is many times stronger than it was in times past. So for example the Daily Mail (2007) asserted that *“Cannabis smoked today is ten or even 20 times stronger than when David Cameron was a teenager in the 1980's”*

Most marginally more sane newspapers don't go for such fantastic claims, settling for a more sedate 2x or 4x as strong, such as the Independent who said

“Traditional herbal cannabis contains 2 to 4 per cent THC, according to the Drugscope charity. More potent varieties average 10 to 14 per cent – three to four times as strong².”

Claims for relative potency are hard to substantiate, and harder to apply to how cannabis is used.

¹ <http://www.dailymail.co.uk/news/article-435517/Cannabis-times-stronger-1980s.html>

² <http://www.independent.co.uk/life-style/health-and-wellbeing/health-news/the-big-question-what-is-the-truth-about-skunk-and-have-the-dangers-been-overstated-778590.html>

Questions arise such as the form of cannabis on sale, how it has been handled, stored and processed, and how much of it is used all need to be taken in to consideration. It is also difficult to compare the relative amount of THC in a plant's flowers now, compared to a plant thirty years ago.

So, for example the potency of dried herbal cannabis imported from the Caribbean in the seventies is affected by a number of factors:

- How much THC was present in the plant when it was cropped
- How much THC was destroyed or lost through drying and processing
- Degradation of THC during storage and importation
- Degradation of THC following seizure and police storage, prior to analysis.

It is also important to stress that in the seventies and into the early eighties, cannabis resin was more widely used and available than herbal cannabis. So for purposes of comparison it makes more sense to compare the potency of cannabis resin then with herbal cannabis now.

The evidence here is variable. Depending on the product and country of origin, potency was massively variable. And huge variations occurred year on year. So for example in 1979, the average potency of cannabis resin from India was 12.5% THC, while widely-available Moroccan hashish came in lower at 8.8%.³

Comparing this to mean potency of herbal cannabis in the UK in 2008 (16.2%) this would mean that herbal cannabis now was twice as strong as the Moroccan hashish, or a third stronger than the Indian hashish. But either way a far cry some of the claims made by some media commentators.

At one point, the Government-funded drugs advice service, Frank, claimed that cannabis was “*stronger now than ever before*” and again this was a hard claim to substantiate.

Analysis over the past thirty years shows cannabis oils seized in the UK routinely showing potencies of between 30% and 40% - two to three times stronger than the average herbal cannabis on sale in the UK. Samples of Indian oil seized in 1981 showed potencies of between 40% and 70%⁴ - far far higher than the strongest herbal products on sale in the UK.

So some forms of cannabis sold in the seventies and eighties was far stronger than some of the herbal cannabis sold today. It's probably fair to say that most of the cannabis being used today is more potent than most of the cannabis being sold thirty years ago. Herbal cannabis now is stronger than herbal cannabis then.

The resin in the UK is generally now very low-grade and as such has a lower THC content. In turn, hybridized strains of herbal cannabis have been grown to increase yield rather than strength. But on balance the high-yield/high-strength cannabis strains on the

³ <http://www.briancbennett.com/charts/fed-data/thc-content-uk.htm>

⁴ op cit

market now are probably comparable in strength to good-quality resin available through the seventies and eighties.

But ultimately the strongest products on sale in the 70s and 80s (like highly refined oils) were stronger than the strongest herbal products on sale now.

In practice the key issue may not be the amount of THC present, but the extent to which CBD is present in significant quantities. While historically, quantities of THC were routinely assessed and recorded, the same is not true for CBD and so the historical picture of CBD is largely missing.

However it is likely that much resin and older strains of herbal cannabis tended to have a higher ratio of CBD to THC and this may have resulted in a more 'balanced' smoke.

The other factor that needs to be borne in mind is that the quantity of cannabis used will vary according to the strength of the product. Cannabis users will generally adjust the amount that they place in a spliff or pipe according to the strength of the drug. So most users, finding out that a batch of cannabis is especially potent, will reduce the amount that they put in a spliff; conversely, if it is discovered that a batch is especially low potency, more will need to be added.

5: Production:

Cannabis production can range from the very low-tech to the highly developed. A great deal of cannabis is grown in the ground with little or no additional attention. In areas where it quite literally grows wild, it may simply be picked, dried and smoked with no other embellishments.

Cannabis in the UK is readily grown from seed; these can be collected from batches of herbal cannabis that have been fertilized; some herbal cannabis contains seeds and a proportion of these will be fertile. Otherwise seeds can be purchased from alternative shops or from seed-banks that supply by mail-order or over the Internet. Cost of seeds can be minimal or can cost £20-100+ for ten seeds: companies that sell high-yield seeds that are guaranteed to be female and fertile command a very high price.

Professional growers will end up cloning plants from cuttings rather than using seeds. This reduces the chances of ending up with male plants or being ripped off by low grade seeds.

Germinated seeds can be grown in soil, or hydroponically. Soil-grown plants may be grown on waste-ground or more domestic settings. Some growers will identify an area of waste-ground which is away from public scrutiny; common-land, industrial sites and motorway embankments have all been used for cultivation. Either seeds are planted in situ or seedlings transplanted.

Hydroponics and commercial growers

The biggest technical developments in cultivation has been the use of high-intensity lighting systems and hydroponic grow-systems. Here, rather than growing the plants in soil, they are grown in troughs filled with growth mediums; the plants receive moisture and nutrients which are pumped in to the troughs. Further, by providing the plants with high levels of artificial light through the use of lighting systems, the plant's growth and flowering cycles can be regulated; yields can be further maximised by subjecting the plant to doses of CO₂.

With such growing systems, a large number of plants can be squeezed in to a relatively small amount of space; growing systems can range from a small wardrobe system adequate for three or four plants, through to spare rooms with 50-100 plants growing.

In recent years, professional growers have



started to dominate the market. Entire houses given over to production can contain 1000-5000 plants. Huge amounts of light are needed by such operations, and the heat, combined with hotwired electricity make for a significant fire risk.

Such professional growing operations concentrate on production of fast growing, high yield plants which can produce a crop in under ten weeks. Given the high crop density, pests become a significant issue, and crops will need to be treated with pesticides to control mites and other perils.

A thousand plant set-up could produce at least five ounces per plant, producing some 5000oz with a street value of some £150/oz. £750,000 per crop makes this a lucrative business. Enough for a fair few people to put the prospects of a slice of a fourteen year custodial sentence for cultivation to the back of their mind.

Male and female plants: Once the female plant is fertilized, production of flowers and resin ceases, and the plant produces seeds. In commercial growing set-ups, male plants will be culled before they mature and the female plants will be grown on their own. As they are not fertilized they continue to produce resin and larger flowers; by close observation, the grower will attempt to crop the plants when they have their highest levels of resin. Herbal cannabis made from unfertilized female plants is often referred to as Sensimellia or sensi.

As most commercial cannabis in the UK is grown indoors, this makes it relatively easy to remove male plants and so most commercially sold herbal cannabis is some sort of “sensi.” When the UK market used to get a lot of seed-ridden imported herbal cannabis, the term “sensi” was much more important, but less so now.

Curing: Once harvested, the plants need to be cured by allowing them to dry in a dark environment; the curing process gets rid of a large amount of the chlorophyll in the plant; too much chlorophyll tends to result in herbal cannabis that offers a harsher smoke, and is more likely to cause headaches and taste unpleasant.

Badly cured cannabis may end up being affected by mildew or other fungus. This smells unpleasant and so producers may end up spraying buds with citrus spray to mask the mildew smell. While not dangerous to most people, fungal spores could cause lung irritation or infection in some people.

Commercial hybrids and hydroponics:

In 2002 the FACE magazine looked at common strains on sale in the Netherlands. While this was more of a “sampling” exercise than analysis, the details are included over to illustrate the range of products on sale at the time.

PHOTOGRAPHY SUSIE FORMAN

THE HIGH STREET

Ready to roll? With a potential future of authorised cannabis cafés, be prepared to weed out your indica from your sativa...



AK-47

50-50 indica-sativa hybrid (sativa provides an E-like, wide-awake high, while the more powerful indica gives the traditional sleep-inducing feeling). Takes effect quickly and gives a cerebral, long-lasting high. Price: □ 7.50/gram



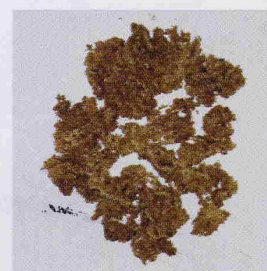
NORTHERN LIGHTS X

One of several Northern Lights strains. Prized for its shapely buds and its crisp, punchy high. Price: □ 9/gram



BIG BANG

Not the prettiest plant, but Big Bang's dense, clumpy buds indicate its potency. Price: □ 8.50/gram



KALIMIST

The sativa-heavy shoots of the Kalimist plant are prized for their powerful buds and spicy aroma. It delivers a clubby, euphoric high. Price: □ 7.60/gram



■ PURPLE HAZE

One of the few varieties hardy enough to be grown outdoors in northern Europe, it's named after the colour of its buds. Price: □ 7/gram



■ JACK HERRER HAZE

Inexpensive and strong, the resinous Jack Herrer Haze plant remains an Amsterdam favourite. Price: □ 6.50/gram



■ DUTCH ORANGE BUD

Domestic Dutch skunk strain whose sinsemilla (seedless) plants produce a soft taste and medium high. Price: □ 7.5/gram



■ EL NINO

Indica-sativa hybrid bred to engender a big high and then a protracted period of stonedness. Must be grown indoors in Europe. Price: □ 8/gram



■ SKUNK

Originally known as Four Ways, because it was developed from four different types of weed, Skunk is grown hydroponically. Can cost twice the price of more pedestrian strands, but contains about five times the amount of THC. Price: □ 3 each



■ NORTHERN LIGHTS

A pure indica breed, with strong, large buds, a sweet taste and a prolific high, Northern Lights is widely available in Amsterdam and is much sought-after for its cross-breeding potential. Price: □ 11.5/gram



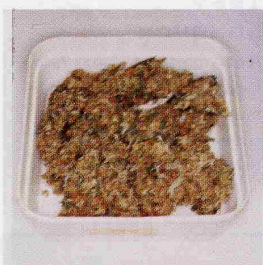
■ GREENHOUSE WHITE WIDOW

Another strain with a handy visual signature: sweetly potent and rich in resin, White Widow is typically distinguished by little clusters of pale crystals on its head. Price: □ 8/gram



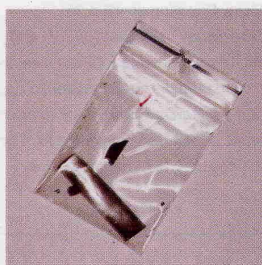
■ KING HASSAN

Prize-winning hashish noted for velvety texture and subtle flavour (according to data from the Independent Drug Monitoring Unit, two-thirds of the cannabis consumed in the UK is in resin form). Price: □ 9/gram



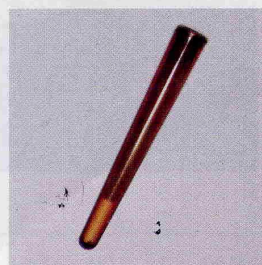
■ SUPER SILVER HAZE

Bred from Skunk, Northern Lights and Haze strains, the THC-saturated Super Silver Haze is a multiple winner of Amsterdam's annual Cannabis Cup. Delivers an overpowering, indica-sativa high. Price: □ 9/gram



■ KETAMA

Light hashish (as opposed to the 'dark' Moroccan or 'soap' most common in the UK), originating from the eponymous region in Morocco. Dense, with a high oil content. Price: □ 9/gram



■ PRE-ROLLED SELECTION

Most Dutch coffee shops offer machine-rolled spliffs in cigarette-style boxes or in single plastic tubes, with pure skunk spliffs, tobacco-skunk mixes and hash-tobacco mixes among the most common. Price: □ 3 each



■ HAWAIIAN HAZE

Based on an indica-heavy Hawaiian weed, boosted by more robust Haze genes in this variant to improve and strengthen the strain. Price: □ 40 for 10 seeds

Prices based on current Amsterdam rates. Thanks to The Greenhouse, 91 Tolstraat and The Rookies, 145 Korte Leidschwarstraat

Resin production:

In countries that produce resin, two primary methods of extraction are employed. The first, predominantly in India, is the growing plant leaves and flowers are rubbed between the palms to accumulate the resin. This is then scraped off the hands and rolled in to balls. This **charas** is a high quality, potent product which rarely shows up in the UK anymore. Some of it ends up on the Dutch market while the rest is voraciously consumed by international backpackers whose idea of immersing themselves in Indian culture is to find a cheap hotel and consume vast quantities of cannabis while figuring they are having a spiritual experience.

The other method of production, predominant in North Africa, is to collect the dried flowering plants, and rub them through screens of diminishing sizes until only the resin, and no other plant material is collected; this is then compressed in to blocks. The resultant **hashish** was for many years the mainstay of the UK cannabis market. Cannabis resin from Morocco, Tunisia, Algeria, Turkey, Afghanistan, Pakistan and India was widely available and varied widely in quality and strength. However, many of these countries produce little or no resin anymore and very little of any quality makes it to the UK.

Moroccan hashish does still make it on to the UK market but tends to be of relatively low quality with the bulk of the UK resin market being adulterated “Soap-bar” which is discussed in more detail below.

As with other aspects of production, technology has altered the methods of resin production. Dutch growers have developed methods of extracting resin using freezing and filtering systems that allow for bulk extraction without the high manual costs described above.

Finally, websites describe a number of ways of undertaking resin extraction at home; however this has not caught-on extensively in the UK.

6: Resin and Grass: Changing Patterns of Consumption

The pattern of cannabis use and substances used has also changed radically over the past fifteen years. Historically, the UK cannabis market was dominated by cannabis resin (hash) rather than herbal cannabis. The UK market was reliant on imported cannabis; this was not primarily sourced from the Netherlands, but from India, Pakistan, Morocco and Afghanistan. Given its relative weight, concealability and strength, it was more rational to import resin rather than the bulkier, smellier herbal cannabis.

So throughout the seventies and mid-eighties, the dominant drug smoked in the UK was resin, with herbal cannabis of any strength cropping up more rarely as a more exotic 'treat.' Herbal cannabis **ganja** was the form of cannabis preferred amongst Afro-Caribbean users so significant quantities were imported and sold in areas with a significant Afro-Caribbean community.

Conversely in the US, primarily supplied by Mexico or its home-grown market, herbal cannabis was the primary form of choice. This abundant drug has been primarily smoked in the US as pure herbal spliffs without tobacco; the UK developed a pattern of use smoking cannabis resin in spliffs with tobacco.

Since the mid-nineties, the availability of cannabis resin in the UK has declined. In part this has stemmed from market-pressure. The amount of resin sold by producer countries to supply the market in mainland Europe has seen less exported to the UK. Dutch coffee-shops are major purchasers, and the net result has been less hash in the UK, and the products imported have been generally low grade.

In its place, there has been a massive growth in the importation and the home-production of herbal cannabis and this has been of increasing strength, with higher levels of THC.

In the mid 90s, seizures of herbal cannabis only made up around 25% of seizures; in 2001 this had almost doubled with herbal cannabis making up 43% of seized produce.

By 2008 the balance seems to be around 80% of the UK market being for herbal cannabis, predominantly home-grown hybridised cannabis. The remaining 20% is mostly low-grade imported cannabis resin. So there has been a total reversal of the picture over the past thirty years.

Before exploring the issue of high-strength herbal cannabis, it is worth making a couple of other points about the resin v. herbal debate. Good-quality resin has a number of advantages over herbal cannabis but these are seldom discussed. Resin which has been carefully prepared should have a very low amount of plant matter in it. As the product table below shows, good quality resin should be the screened resin glands of the female plant. By comparison, even high-yield herbal cannabis will require smoking larger quantities of plant material than smoking resin. As such, resin smoke should contain a lower number of pollutants than smoking herbal cannabis. However, due to the scarcity of good-quality resin on the UK market, this harm-reduction response is not feasible for most users.

7: Contaminants in Cannabis

The 2006-2007 Drought and “Grit Glass” or “Glass Grass”

In late 2006, the Association of Chief Police Officers (ACPO) announced a clampdown on cannabis growers in the UK. This operation was dubbed operation Keymer. In practice, concerted effort against growers had been taking place since spring 2006, and has continued unabated at a significant level ever since. However Keymer was one of the first coordinated pieces of action against commercial growing in the UK.

The net result of taking out a large number of growing operations was a massive curtailment of availability of herbal cannabis in the UK.

The knock-on effect in areas that had seen a high number of raids was bought drugs out of area, resulting in a national shortage. Some people moved to use of soap bar. Others paid for herbal cannabis at vastly inflated prices.

As the drought carried on, reports started to come in of herbal cannabis being contaminated with “grit” or “glass.” It seemed unscrupulous growers or suppliers were impregnating herbal cannabis with sprayed-on glass particles, partly to increase the weight of the product, but also to give it the crystalline, sparkly look of strong skunk. The matter finally reached the Department of Health who released a bulletin on the subject in January 2007.

To guard against glass-grass:

- Rub a small amount of grass between fingers – if it feels gritty, inspect it closely;
- Ideally don’t smoke it
- If you must smoke it, smoke through water, gauzes or a cigarette filter;
- If you experience sharp chest pains, excessive coughing or tightness of chest, seek medical advice.

While reports were widespread in 2007-2008, they have become less common over the past two years.

Soap bar

As production and availability of good-quality resins declined, so their place was taken by low-grade forms of resin – especially “Soap Bar.”

The “problem” of soap in the UK is a serious one, but is not discussed much in drugs education. Solid cannabis should be one of the products discussed above. However, young people in the UK almost invariably buy “soap” or “soap bar.”



Soap-bar is essentially a by-product of the cannabis-production process. Growers in North Africa who are producing resin and buds for the international market end up with a lot of left-overs: plant stalks, leaves, trimmings and material that can't be put through a sieve.

These remnants can be powdered, the active residue mixed with binding agents (e.g. paraffin wax, glue) colourants (e.g. henna, coffee) and other psychoactive products (ketamine, benzos). The resultant product is pressed into bars, which are heavily wrapped in plastic and then smuggled, typically in diesel tanks, back from Spain to Northern Europe and the UK.

Soap-bar is a far cry from "natural" cannabis plants. It contains a large number of unknown and potentially hazardous compounds.

Soap is however, cheap and widely available and so has become widely used amongst young people who (a) know no better or (b) can afford nothing better or (c) can't get access to anything better.

As low grade cannabis resin has been the main form available for the last ten years or so, many young cannabis users have no frame of reference to differentiate 'good' from 'bad' resin. As such it is hard for them to know if they have bad resin or not. Typically in the UK it will be bad resin. Especially if it's cheap. Soap sells for as little as £70-80/oz. very good quality resin could be selling for as much as £150+ an ounce.




The UKCIA offers suggestions as to how to identify and 'clean' Soap – this is discussed in more detail in the tables overleaf.


Other contaminants:






Without systematic monitoring of contaminants it is hard to be confident what is being added to herbal cannabis but reports include:

- German cannabis being bulked with lead
- Dutch cannabis adulterated with Sildenafil
- Herbal cannabis in the UK adulterated with water, salt-solution, sugar solution, wax and sand.

8: Key Cannabis Products

Product	Process	Notes
<p>Herbal Cannabis, <i>Grass, Marijuana, Weed, Herb</i></p> 	<p>Leafy parts of the plant picked and dried. Will include small leaves, flowering parts, possibly small twigs and seeds. Imported products (as illustrated, top) are likely to be compressed, and consist of hard green dense material. Domestic produce is likely to be a loose mixture of dried herbal material</p>	<p>Frequently home produced, Relatively cheap and often not very potent. Cheap weed may be as cheap as £40/oz and goes up to 80/oz. Smoked or eaten. Given the amount of herbal mixture smoked for its low potency, a relatively large amount of smoke is inhaled.</p>
<p>Buds, <i>Skunk, northern lights, white widow etc</i></p> 	<p>Flowering parts of a plant that has been cross bred to maximise size of the buds. The product will consist exclusively of flowering parts of the plant, with little or no leaf.</p>	<p>Far stronger and likely to be far more expensive than generic home-grown weeds. Starting price for low grade buds £60/oz, but exotic strains could command higher prices. Smoked or eaten</p>
<p>Solid cannabis <i>Hash, hashish, blow, black, dope, resin</i></p>	<p>There are two or three key “types” of resin which concern us. Terms vary widely and are fiercely contested so many readers will disagree with some (or all) of what follows.</p> <p>When the female plant is flowering it exudes sticky resin to capture male pollen. This sticky material, which is high in THC, can be collected and compressed in to blocks.</p> <p>The material that is compressed can be:</p> <ul style="list-style-type: none"> • Dried, crushed and sieved resin glands • Resin manually collected from plants • Chemically extracted resin • Other adulterants <p>The powdered resin extracts are sometimes referred to as “polm” in Dutch or Pollen. They are not strictly ‘pollen’ as they are not male plant sex cells. They come from the female plant and are really dried resin glands.</p>	
<p>Pure, screened hash <i>Hashish Double Zero King Hassan Moroccan</i></p> 	<p>The ripe flowers are collected and allowed to dry. The resin-bearing flowers are beaten, and then rubbed through a fine screen. This allows the resin to pass through but anything larger remains behind. The collected resin is compressed into blocks, Dried resin is bonded with other powdered plant material and with other resin and compressed into blocks.</p>	<p>Very potent and rarely available in the UK. IDMU puts costs in 1998 price for 1oz of Nepalese at £175 but prices could be as high as £10/gm or more. Most resin will quickly expand on heating and crumbling, and some of the best forms seen are very light green in colour and crumble into a flour-like consistency with little pressure.</p>

<p>Resin Nepalese Charas</p> 	<p>Resin is also collected by rubbing the plant between the palms, and the collected sap can be rolled in to balls or sticks. Some producers will add a small amount of binding agent – honey, oil or resin, to help the resin form a solid mass.</p>	<p>Usually more sticky than pure pollen-based hashish. Can range in colour from greeny-brown to black. Scarce in the UK.</p>
<p>Soap Bar</p>	<p>The “problem” of soap in the UK is a serious one, but is not discussed much in drugs education. Solid cannabis should be one of the products discussed above. However, young people in the UK almost invariably buy “soap” or “soap bar.”</p> <p>Soap production is described in Red Eye Express as follows</p> <p>MAKING SOAP BAR IN YORKSHIRE While reading Robert Connell Clarke's excellent book, Hashish, we came across a section on low-grade export quality Moroccan hash, known in the UK as Soap Bar. It seems that soap is made from only a very small percentage of resin glands (referred to as pollen), and up to 90% non-resin cannabis plant material which is bound together with beeswax or pine resin and condensed milk, as the mixture is too dry and powdery to be bound any other way.</p> <p>As the mixture is very green due to the high percentage of plant material, it is then coloured with instant coffee or henna to give it that sandy brown colour! In order to give it a slightly resinous look, turpentine is then added, which also disguises the taste! Well, as growers with an abundance of leaf material left over from a crop, we couldn't help ourselves. We had to give it a try! We sieved off 10 grams of resin glands (pollen), crushed up 200 grams of dried leaf and ran it through a sieve to reduce it to a very fine powder. We then heated this mixture in a bowl over boiling water and added 5 grams of beeswax, five teaspoons of condensed milk powder, one teaspoon of turpentine, and a couple of pinches of instant coffee powder for colour. We continued to knead the heated mixture into a dough-like form, then pressed it under pressure and allowed it to cool. It bonded well into rock hard lumps, just like Soap Bar! To our delight, when we tested it with a flame, immediately we were treated with that old familiar smell of grade 'A' genuine Soap Bar! Crumbled like it too! Although there was virtually no resin glands in this so-called hash, we gave some to a friend and he had no complaints!!”</p> <p>Other commentators have suggested that Soap-Bar contains a variety of noxious substances that could include glues, plastics, henna and other drugs including ketamine. Little of this has been substantiated by rigorous analysis.</p> <p>How to clean polluted hash</p> <ul style="list-style-type: none"> • In a saucepan, boil up a small amount of water (perhaps to a depth of 2 cm or so). 	

	<ul style="list-style-type: none"> • Add your yucky sample of crap soap • Simmer gently and crush the hash block • The water will more than likely turn yellow, maybe due to the henna (or worse) dissolving out. • When the hash has all powdered up, drain the water off and put the remaining powder onto kitchen paper towels to dry out. • As cannabis oils are not soluble in water so the potency of what you have won't be too badly damaged and given what comes off it's said to be well worth it (although to be fair this is no way to treat good hash!). You'll also have a lot smaller stash at the end of this though. 	
<p>Oil</p> 	<p>Mostly extracted from leaf and plant sources by using hot alcohol.</p>	<p>Rare in the UK. Appears as a tawny brown or dark brown liquid.</p>
<p>Dronabinol,</p> 	<p>Dronabinol is a synthetic version of THC. It produces a high or stoned feeling but also stimulates appetite and soothes nausea. Dronabinol is used for treating the nausea produced by chemotherapy in cancer patients and to stimulate appetite and combat weight loss. Nabilone is a similar synthetic drug but with a modified molecular structure.</p>	<p>Prescribed in the UK, but rarely if ever appears on the street-market</p>
<p>Nabilone</p>		
<p>Spice JWH-018 JWH-122 HU-210 HU-243 WIN55-212-2 <i>And many others</i></p>	<p>Synthetic chemicals which works on cannabis receptors in the brain. The chemicals are added to “herbal” highs such as Spice. The compounds acts in a similar way to the active compounds in cannabis (THC, CBD) providing pain relief, euphoria and sensory distortion.</p>	<p>Synthetic analogues of THC and related compounds made illegal in December 2009.</p> 
<p>Sativex</p> 	<p>Medical product manufactured by GW Pharmaceuticals</p> <p>Plant extract from hybridized cannabis containing THC (27mg/ml) and CBD (25mg/ml)</p>	<p>Licensed for use in UK since June 2010.</p>
<p>Rimonabant</p> 	<p>Medicine which acts on CBI receptor sites. Rimonabant is a CBI antagonist – it blocks CBI receptors. This drug has been used as an appetite suppressant, and is also being explored for use as a smoking-cessation aid.</p>	<p>Use in Europe has been suspended since 2008 due to concern about side effects.</p>

9: What they do

The way that cannabis works is still unclear. It is an area of ongoing research. In the mid-Eighties, researchers identified **receptor-sites** in the brain where the active chemicals in cannabis (THC and CBD) appeared to work. These **cannabinoid receptors** were termed CB1 and CB2 receptors.

CB1 receptors were located within the brain and the central nervous system and CB2 receptors primarily outside the brain. Some recent research suggests that the cannabinoid system is one of the most extensive within the mammalian brain with more receptors for cannabinoids than other brain chemicals.

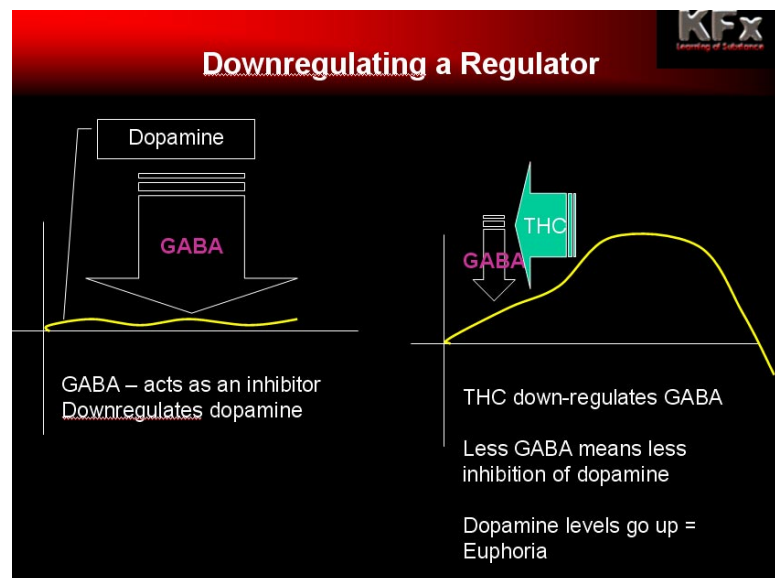
Having identified where cannabis works, researchers looked for the natural chemical that would normally fit on to these receptors. In the early 90s researchers identified a brainchemical which they named **Anandamide** which appeared to be the *brain's own cannabinoid*, that is the naturally produced chemical within the brain which would normally act on cannabinoid receptors.

The pharmacological effects of anandamide suggest that it may play important roles in the regulation of mood, memory, appetite, and pain perception. It may act as the chief component of a system involved in the control of cognition and emotion.

Recent research has indicated that alongside anandamide there may be more than twenty other **endogenous cannabinoids** and there will probably prove to be other cannabinoid receptors as yet unidentified.

How THC (and CBD) act at cannabinoid receptors is the subject of much research, and the science is in its infancy.

In some areas of the brain the cannabinoid system seems to act as a regulator or an inhibitor. In reward areas of the brain, for example, cannabinoids seem to down-regulate another brain chemical – GABA.



GABA normally acts as the brain's brake, reducing electrical impulses and brain activity. It helps keep a lid on other brain chemicals such as the reward chemical, *dopamine*.

When cannabinoids got to work, they push down the activity of GABA; this means that there is less control of dopamine levels which go up. Higher dopamine levels are associated with feelings of pleasure and euphoria.

In other areas of the brain, cannabinoids may inhibit the brain chemical glutamate, which is partly responsible for memory, and affects movement. Cannabinoids may also affect pain systems, and how sensory input is processed.

While this entire area of research is in its infancy, the effects of anandamide also appear to include:

- At CB2 receptors, exerts influence on auto-immune system including pain and inflammatory responses.
- CB1 receptors seem to exert a paradoxical collection of effects. On the one hand they appear to inhibit some neurotransmitters, especially GABA. As GABA exerts a calming effect on brain activity, inhibiting GABA could cause increased activity in the brain. On the other, they may exert a calming effect on the brain.
- Inhibiting Acetylcholine in the brain: acetylcholine is important in memory and concentration. This may in part account for cannabis' impact on short term memory.
- Impact on dopamine levels: research suggests that cannabis use can increase levels of dopamine. This would link to the sense of reward and pleasure associated with cannabis use, and possibly also the relationship between cannabis use and symptoms of psychosis. However, other research suggests that anandamide acts as a brake on dopamine activities, and so reduces symptoms associated with excessively high dopamine levels.

Interactions with other brain chemical systems:

The exploration of how the **endogenous cannabinoid system** may interact with other drug processes is not yet understood. However, initial research has thrown up some interesting lines of exploration:

Cannabinoid and opioid systems:

- there appears to be some relationship between how and where cannabinoids and opioids operate, possibly at mu receptors.
- In rodent trials, administration of THC can cause an increase in the number of mu-opiate receptors;
- Rats which have been treated with THC and habituated on heroin used larger doses of heroin, more frequently than non-THC treated rats;
- There is limited research evidence that demonstrates cannabinoids impact on the production of endogenous opiates, that it may attenuate withdrawal symptoms and may potentiate the effects of exogenous opiates.

Cannabinoid systems and Alcohol

Researchers have started to explore the relationship between alcohol dependency and THC, primarily in rodent trials. Research suggests that, when using rats who have been made dependent on alcohol:

- Administration of a THC-type compound increases the amount of alcohol consumed;
- Using a compound which blocks CBI receptors (such as Rimonabant) decreases alcohol self administration.
- Other research has highlighted that administration of THC to alcohol-dependent rats increased lapse rates on to alcohol while CBI blockers decreased the rate of lapse.

Cannabinoid Systems and Nicotine

Given the prevalence of cannabis use along side tobacco, there has also been interest in possible interactions between the cannabinoid systems in the brain and systems responding to nicotine.

- There is some evidence emerging that compounds which activate CBI receptors such as THC may reduce symptoms of withdrawal from nicotine;

Both THC and nicotine stimulate dopamine release and so the dual use of cannabis with tobacco may increase the level of reward experienced.

10: Key effects

The effects of taking cannabis can be highly variable and highly subjective. These can be influenced by a number of factors, including:

- amount taken,
- strength and composition of the cannabis,
- method of use
- mental state of the user
- other substances used
- the setting in which the use takes place
- the expectations and experience of the user.

People who use cannabis can expect to get a range of different effects at different times; the following key symptoms may therefore seem contradictory at some points:

Introspective, relaxed, calm, anxious, restless, quiet, talkative, giggly, subdued, sleepy, animated, altered sensory perception.

Alongside these effects, there are a number of side-effects which can include:

Dryness of mouth, reddening of eyes, cough, husky voice, intense desire to eat (munchies).

Users may also have a range of less pleasant effects that can include:

Anxiety, paranoia, dizziness, nausea.

The calming and sedating aspects of cannabis:

Many users find the use of cannabis has a calming effect. Many users find themselves more relaxed and calm. Some people find themselves in an introspective state, able to sit quietly, or enjoying music, TV, reading etc.

Users may experience marked sedation, and this can include heaviness of the limbs, difficulty in commencing activities and sometimes difficulty in talking. What cannabis seems to inhibit most is the desire and motivation to start activities. Once the action is initiated, most users can proceed with the activity, albeit maybe with impeded concentration.

For many users, the relaxing aspects of cannabis use are one of the pleasurable aspects. However, some users find the sedation can become excessive, and hamper conversations or activities. Feeling ‘cabbaged,’ ‘monged,’ or as though you are in a ‘goldfish bowl,’ describe a state where cannabis use has had a marked ability on being able to move or talk, and may suggest that this is less than pleasant.

Stimulating effects of cannabis:

Although many users do find cannabis use relaxing and sedating, it can also make users more lively and animated. It can make people very talkative, and also often makes people find jokes and conversations inexplicably hilarious. Fits of giggling at seemingly nothing are not uncommon.

Cannabis has also got a long association with creative processes; historically cannabis has a high association with literature, poetry and music. To this day, the importance of cannabis in music and club scenes is noteworthy. Cannabis use has been an integral aspect of many musical genres for the best part of a century, through jazz and blues clubs, the reggae and ska scenes, punk, soul through to the contemporary dance scene.

The hallucinogenic aspects of cannabis use:

Cannabis is moderately hallucinogenic, leading to a level of perceptual distortion. At low to moderate levels, this distortion may well be limited to enhanced appreciation of sound, colour and tactile stimulation.

Some users may experience a sense of tunnel vision where external distractions and stimulus are muted out and the subject of concentration – such as a programme or music, are appreciated with less distraction.

At higher doses, there may be a more marked hallucinogenic effect including moderate visual distortion: floating shapes, perception of patterns in wallpaper or carpets, and possibly traces from moving objects. Such mild sensory distortion is more likely to be encountered with stronger strains of cannabis and where cannabis has been ingested.

With very high doses of very strong cannabis, users may experience auditory and visual hallucinations, including hearing sounds and possibly having a greater level of visual distortion. True hallucinations are exceptionally rare, even with very high doses.

Cannabis and the munchies:

Cannabis can have a dramatic effect on appetite and the exact mechanism for this is not clear. A couple of studies have suggested that cannabis causes levels of blood-sugar to drop, and this in turn stimulates appetite. However, there does not appear to be a robust evidence base to support this and other commentators suggest that cannabis has a more direct effect on the mechanisms that control appetite. Blocking of the CBI receptor by the drug Rimonabant suppresses appetite, and this treatment has been developed in part to reduce appetite in people with complex obesity. This supports the idea that the munchies from cannabis use is because cannabis works on the brain at a neurochemical level rather than merely a digestive process.

Unfortunately, while cannabis does have an impact on appetite it tends to lead to excess consumption of sugary snacks, and this is likely to have a detrimental impact on user health if such consumption is excessive.

11: Mixing Cannabis

Alcohol and cannabis use together increases the risk of experiencing a high level of dizziness, disorientation and nausea. This is often called a 'whitey;' it may be related to the combined impact of alcohol and cannabis on blood sugar and, while unpleasant does not seem to be dangerous. People experiencing whitey invariably want to lie down, often on the bathroom floor, and the effects generally wear off within 30 minutes. Some sources would advocate intake of a sugary, non-alcoholic drink to speed up recovery.

Cocaine and Cannabis: Cocaine and cannabis are used together; crack cocaine is smokeable, and this can be 'chipped' or flaked in to a spliff and smoked. The crack will provide a short acting rush of energy and euphoria, followed by the stoned effects of the cannabis, offsetting the comedown from the crack.

A key risk for young people is this presents a relatively unthreatening route in to crack use. While many young people would be resistant to smoking crack in a pipe, it may appear more acceptable to accept it in a spliff or may be taken in ignorance.

The smoke from a crack/cannabis spliff will be far harsher than normal cannabis. It will smell more acrid and will tend to numb the throat.

Young people should be cautious about accepting spliffs that smell unfamiliar and should be able to ask "what's in this?"

Urban myth says that "White Widow," a strain of cannabis, is dusted with cocaine powder. This is not true; the white crystals that may be visible on White Widow are should in fact be THC. It would be prohibitively expensive to dust cannabis with cocaine and would not, in powder form, be smokeable.

Cannabis and Zyban

The smoking-cessation medication, Zyban, acts to slow down (inhibit) released dopamine from being reabsorbed. THC in cannabis probably increases the release of dopamine in the brain. The use of Zyban on top of cannabis may carry a risk of highly elevated dopamine levels which bring with them a risk of unpleasant symptoms and problems including delusions, hallucinations and risk of psychosis. As such it is probably advisable for anyone being treated with Zyban to desist from using cannabis.

Cannabis and other anti-depressants:

Cannabis may interact with other anti-depressants, especially those that elevate dopamine (e.g. older MAOIs). More importantly, heavy cannabis use may exacerbate symptoms of depression by causing a depletion of dopamine. As such, anyone experiencing depression which and is seeking treatment with antidepressants may find that curtailing cannabis use and exploring holistic interventions such as sleep and diet strategies may help improve mental health.

Cannabis and antipsychotics

Many antipsychotic drugs (e.g. Chlorpromazine) act by blocking the sites in the brain where dopamine works. Using cannabis may increase levels of dopamine, this may overcome the blockading effect of psychotic effects. This in turn could cause negative psychotic symptoms, blocked by the antipsychotics, to reappear.

12: Cannabis-related risks

There are inherent risks in most – if not all activities, and the use of cannabis is no different. Cannabis is not a harmless substance; while it is demonstrably less dangerous than other controlled drugs, this does not make it risk-free. When undertaking education or harm-reduction work, drugs workers need to ensure that they do not dismiss cannabis use as safe, or assume that it is non-problematic.

Problems related to cannabis, as with other substances, fall into the following categories:

- Physical health problems
- Mental health problems
- Legal problems
- Financial problems
- Social problems

The problems that may be experienced by cannabis users are exacerbated by the following factors:

- **High social acceptance:** this is both an advantage and a disadvantage. As an advantage, it means that it does not bring with it the same sorts of social exclusion associated with more stigmatised sorts of drug use. It is highly socially acceptable in many social circles to smoke cannabis. The same cannot be said for (for example) smoking heroin.

The flipside of this is the social acceptability of cannabis makes it harder to avoid and harder to acknowledge that it may be causing a problem. Cannabis use is widespread amongst young people and so is hard to avoid.

The widely held belief (amongst cannabis users) that cannabis is benign, if not beneficial, makes it harder for people who experience problems to acknowledge the problem.

- Drugs agencies and even aspects of Government policy may compound this problem. The emphasis on class A drugs can mean that not only is it more difficult to acknowledge the need for assistance, but cannabis smokers seeking help are not a priority group. They don't tend to have the same patterns of acquisitive crime; they don't inject; their health is not as catastrophically impaired as, for example, crack smokers.

Physical health problems:

Smoking cannabis has a damaging effect on lung health. Research by the British Lung Foundation and others suggested that smoking cannabis was as much as four times more damaging to the lungs than smoking cigarettes without cannabis. This much-quoted piece

of research needs to be treated with some caution. Further attention needs to be paid to the form in which the drug is consumed and the mechanism used to take the drug. As discussed above, there are differences in the form of the drug taken, the way in which it is smoked and the way in which it is prepared. For people who want to smoke cannabis, a move to smoking it without tobacco would substantially reduce lung damage and other health problems.

Weight-for-weight, a single spliff (hand-rolled cigarette containing tobacco and cannabis) is more damaging to lung health than a single cigarette. There are several reasons for this:

- Smoke from a spliff will contain compounds from both the cannabis and the tobacco; the cigarette will of course only contain tobacco. So the spliff inherently contains additional compounds.
- Spliffs will usually be made with a cardboard roach in place of a cigarette filter. This holds the end of the spliff open but does not remove carbon particles or trap tar. So the inhaled smoke will contain more tar, carbon particles and other lung-damaging components;
- People who smoke spliffs tend to draw the smoke in deeper in to the lungs and hold the smoke in for longer.

So a single spliff is going to have a substantially greater negative impact than a single cigarette. However it is important to remember that most people smoke cannabis and cigarettes in very different ways. The majority of people who use cannabis do so infrequently; conversely, most people who smoke cigarettes do so more frequently. So even if a spliff is four time more damaging, a person who smokes three or four spliffs per week is stilling doing far less damage than someone who smokes fifteen cigarettes per day.

Having said this, a heavy spliff smoker would be doing their lungs a substantial amount of damage.

Strategies for reducing lung-harm from smoking cannabis are discussed in the later in the document.

Diet

Cannabis stimulates appetite, and this tends to result in heavy intake of high-sugar food groups. In heavy users, where this food consumption may be combined with little physical activity, there is a risk of weight-gain and obesity. These risks can be reduced by:

- Not going shopping stoned: this tends to result in user purchasing large amounts of snack food; planning a shopping list of things that are needed rather than stoned impulse-buys.
- Preparing food before smoking sessions: once stoned, most users who experience the munchies will eat anything that is to hand. By preparing healthy,

- tasty snacks in advance of cannabis use, users can reduce the intake of less sugary snacks.
- Having fruit rather than chocolate to hand.
 - Ensuring that you still get some exercise; as part of a healthy lifestyle, cardiovascular exercise will be important to reduce weight gain.
 - Where users have diabetes, it will be especially important to highlight the risks associated with excess sugar consumption.
 - Good dental care is important; getting stoned at night can result in a sugary snack and forgetting to brush teeth, which increases risk of tooth-decay.
- Cannabis can also reduce levels of saliva, increasing levels of plaque.

Sleep

Lots of users identify that cannabis helps them get to sleep. This is more than a placebo effect; for many people cannabis does help people experiencing problems with sleeping get to sleep. The down-side is that cannabis seems to have a negative impact on REM sleep for a number of users. REM sleep is the part of sleep where most dreaming takes place and seems to be the point where the mental process of rest and recuperation takes place.

People who have had an inadequate amount of REM sleep may feel less rested and awake feeling tired and drained; there is also some evidence that lack of REM sleep may be associated with some symptoms of depression.

So while cannabis use may promote sleep (and any sleep is better than no sleep) it may not provide enough of the 'right sort of sleep.'

Conversely, when a heavy cannabis user cuts back on their cannabis use, this can cause the user to experience especially vivid dreams that may impair sleep. For most people these symptoms will abate within a few days, but some people may experience disrupted sleep for much longer.

Interventions for people who want to reduce cannabis use but have difficulty sleeping could include advice and support about getting good quality sleep. This issue is discussed in more detail in the module on drug use and mental wellbeing.

Specifically in relation to cannabis, it is important to stress to users experiencing vivid dreaming when they reduce cannabis use that this is a normal symptom and does not generally indicate a greater problem. However, if unpleasantly vivid dreaming has not abated after a month and this is still causing severe disruption to sleep, some intervention may be needed.

Financial problems:

Most people who use cannabis do not use at an unaffordable level. Given its relatively low cost, and that most people use moderate amounts less frequently, cannabis use is

affordable for most users. However, a large cannabis habit can be expensive, and unaffordably so to users on a low income. Someone smoking an ounce per week could be spending upwards of £250 per month, and this could have a substantial impact on debt and bill management.

To prevent such problems developing, especially in younger users, support and advice about budgeting and related life-skills may be beneficial. This would need to include an honest assessment of income against expenditure and encouraging cannabis users to honestly assess how much they spend on their cannabis and the extent to which this is affordable. Many cannabis users are shocked to discover how much they are really spending on their use, and this can act as a trigger to reconsider the level of their cannabis use.

Social Problems:

We should stress that, for most people, cannabis use is successfully managed against other activities such as social engagement, work, family responsibilities and other recreational activities. However, for some people, cannabis use starts to have a negative impact on these other areas and can result in loss of employment, withdrawal from social engagement, and increased isolation.

It has to be acknowledged that for some smokers, this aspect of cannabis use can be very debilitating. Such users may find it hard to find the motivation to get up, go out, or engage in meaningful occupation.

For some people, there can be a negative impact on self-care and while it is important not to suggest that users will become some stereotype of a 'lunched out stoner,' there can be a marked impact on things like keeping the house tidy and doing the washing up, or on self care.

For people who find themselves in such a position, the 'first spliff of the day' is often the worst culprit. People who wake up with the intention of getting things done can find this motivation dramatically sapped after the first spliff. For some people, good intentions fly out of the window at this point, and it may be hard to pick up that motivation.

Strategies that can help in such situations include:

- Making lists of important tasks and dates
- Moving the first spliff later in the day
- Developing self management skills that include not having spliffs until set tasks have been done
- Reducing the amount smoked
- Having days off from smoking to get things done.

13: Cannabis and Mental wellbeing

The relationship between cannabis use and mental health is one of the most hotly-contested and where there are strongly conflicting theories.

The key area of concern has been the correlation that exists between cannabis use and severe mental illness, especially schizophrenia.

The assertion has repeatedly been made in the media and some research that this is a causative relationship where cannabis use is claimed to have caused the mental illness. Most recently, reports were widely cited saying that cannabis use was associated with a fourfold increase in the risk of developing mental illness.

At this point, there is still no proof that cannabis does actually cause severe enduring mental illness. There is certainly a correlation and this may be for a number of different reasons, as discussed below.

There are three main messages that appear to be emerging from the research. The first is that there is an increased incidence of schizophrenia-type illnesses amongst heavy cannabis users when compared to the general population. A review of the research concluded that the risk of developing a serious mental illness was twice as high for heavy cannabis users as for non-users.⁵ This sounds very serious but it needs to be kept in perspective. If two people in a thousand would become ill amongst the general population, this would go up to four in a thousand if they were all cannabis smokers. The vast majority of people will not go on to develop a serious mental illness.

Another piece of research which caused a high level of concern was from New Zealand and looked at a sample of young cannabis users. It concluded that those who started smoking cannabis by the time they were 15 had quadruple the risk of non-users of being diagnosed by age 26 with schizophrenia and related disorders. The risk didn't hold for people who began taking the drug at age 18 or later.

The main worrying implication of this research was that the risks were different for young cannabis users compared to older users. For people who started smoking when they were 13-16 the risks of mental health problems appeared to be greater than those who started smoking later.

Unfortunately, this also reflects the cannabis-using profile in the UK when use starts from 13 upwards and reaches a peak by 15-16.

It should of course be stressed that this four-fold increase needs to be kept in context. If the risk of serious mental illness were two in a thousand amongst the general population, then this would go up to eight in a thousand if they were all cannabis users who started smoking strong cannabis, and smoked frequently before they were 18.

This study still doesn't demonstrate **causality**. It still just shows correlation. But recent lab research with mice has demonstrated differences in memory function amongst mice administered THC as juveniles compared to those who received it as adults. This

suggests that cannabis may have a different impact on developing brains and this may result in an increased incidence of mental illness.

The real problem with this is that amidst all the science and rhetoric, an important message to young people will get lost in relation to cannabis and mental health, and it goes something like this:

- Most people who smoke cannabis do not go on to develop serious mental health problems;
- However, some people who use cannabis do go on to develop mental health problems;
- The research suggests that the risks are highest for people who start smoking when they are younger, possibly under 18 and probably if under 16;
- Risks are higher for those who smoke cannabis, and smoke frequently
- There may also be other factors present such as a family or personal history of poor mental health.

Given these risks the safest course of action is to delay starting using cannabis until after 18, or at least until after 16. If you choose to smoke cannabis, then use less, avoid the most potent products, and don't smoke frequently. Stop if you get negative symptoms such as panic or paranoia.

Having said all this, it's got to be restressed that most young cannabis smokers will not end up with long term mental health problems but delaying use for a couple of years would reduce this risk still further.

Cannabis psychosis:

This diagnosis is often ascribed to people presenting to hospital following a period of cannabis use. This may have resulted from one-off use, using exceptionally strong cannabis or, after a period of prolonged use. Symptoms that may be present include: confusion, anxiety, paranoia, auditory or visual hallucinations, panic attacks, depression, demotivation, emotional blunting, delusional beliefs and a range of other symptoms.

For most people, these symptoms will be shortlived and will abate when cannabis use ceases. For a smaller number symptoms may persist or cease and then reoccur, with or without further cannabis use.

While there is no hard and fast rule for identifying who is most prone to developing such symptoms during cannabis use, the following factors may have an influence:

- Personal or family history of mental health problems, including panic attacks, depression, or more enduring mental illness;
- Use of strong strains of cannabis
- Heavy use over a sustained period of time

Cannabis and schizophrenia and other mental illness:

There is very little evidence to say that cannabis causes *in novo* a patient to develop schizophrenia. The relationship is liable to be more complex and a range of causative or resultant paths may be possible:

Cannabis use precipitates an illness:

For some people, there may have been a latent mental illness that may have emerged at some point. The use of cannabis may have triggered the illness at this point.

Cannabis exacerbates hitherto manageable symptoms:

Some people may find that their use of cannabis worsens their symptoms, resulting in admission to hospital or detention settings.

Cannabis affects engagement with treatment and self-care:

Cannabis can affect concentration, motivation and memory. For patients who need effective structure and routing to maintain good mental health, use of cannabis could lead to forgetting to take medication, missing appointments and demotivation towards good self-care – tidying, cooking, exercise, meaningful engagement. These factors are likely to undermine good mental health.

Cannabis use as a form of self medication:

Many cannabis users with a diagnosed mental illness find some relief in the use of cannabis. It can help people sleep and relax and some patients find that it makes some symptoms of schizophrenia more manageable, including hallucinations. There is (conflicting) evidence as to the role that anandamide plays in managing excess dopamine in the brain, but some forms of cannabis may have an inhibitory effect on this neurotransmitter.

Due to the unregulated nature of the cannabis market, people who self-medicate cannot be certain as to the potency of the cannabis that they are smoking and this makes it harder to regulate usage.

Cannabis and diet and mental wellbeing:

Cannabis use may trigger the user to eat excessive amounts of sugary food. For those people who are especially sensitive to sugar, the excess may destabilise mental wellbeing, and could contribute to the person's deterioration in mental health.

Cannabis, depression and “amotivation syndrome.”

Cannabis use is not just associated with psychotic-type outcomes in a small number of people. The other negative mental health outcome most frequently reported is depressive symptoms. This can include low mood, dysphoria (the opposite of euphoria – everything feels wrong and bad), anhedonia (lack of enjoyment in things that you used to like doing), feeling very tired, finding it hard to get up to do anything, and everything seems pointless.

As we've described earlier, cannabis appears to elevate levels of dopamine, by increasing the amount that is released. However, it takes the brain time to make more dopamine, and with regular use, the brain may become less sensitive to dopamine. Given that dopamine helps make you feel positive, good and rewarded naturally, a shortage of it could well leave you feeling low, demotivated and unrewarded.

Dopamine is manufactured naturally in the brain from elements that are contained in food. But if someone's diet is poor, then the brain could find it harder to make enough dopamine. A diet high in soft drinks and junk food will not have as much of the building blocks to make dopamine. Exercise is also important. So a heavy cannabis user who spends too much time on the sofa and eats badly will get a double-whammy in terms of their dopamine levels.

Cannabis use could deplete dopamine levels, and lifestyle could hamper recovery. The net outcome - **increased risk of depression.**

Again it must be stressed that the majority of people who use cannabis experience neither serious psychotic nor depressive symptoms but some people do, and so it's important to acknowledge the risks as much as the good sides.

Do people who are starting to experience symptoms of mental illness gravitate towards drugs?

There is an argument that people who are experiencing early symptoms of poor mental well-being are more likely to gravitate towards drugs. For a young person, initial symptoms could include behaviour problems, isolation, depression, anxiety or more marked symptoms including delusional thoughts or perceptual disturbance. Such behaviour may also be accompanied by problems at school or home. In the course of experimental substance use, the young person may find that cannabis alleviates symptoms or makes them more bearable and this may become a drug of choice as a result. So while by no means a certainty, early onset cannabis use may be an indicator of other underlying problems rather than a causative factor.

Maximising Good Mental Health Amongst Cannabis Smokers:

Cannabis use is very widespread amongst people with identified mental health problems. There is also a high level of prevalence generally amongst young people. Clearly, the invocation to simply abstain has not and will not be heeded. As such, educators will need to engage more constructively with the interface between cannabis use and mental health. The following suggestions are ways of attempting to reduce the impact of cannabis use on mental health, both amongst people with identified mental health problems and those without.

Highlight high risk groups: those people who have a family history of poor mental health (e.g. diagnosed mental illness, prone to depression) should be aware that cannabis use could trigger underlying mental health problems and so would be best advised to avoid all hallucinogens including cannabis.

Avoid stronger strains: Strong strains of cannabis (i.e. those with a higher THC content) may be more likely to exacerbate or trigger mental health problems. So the use of these products, especially by high risk groups, should be reduced or avoided. However, the risk is that some people will simply smoke weaker strains in larger quantities, increasing lung damage and also increasing the chance of mental health problems.

Acknowledgement of benefits:

Where cannabis users have concurrent mental health problems, it will be important for workers to identify the benefits that the user associates with cannabis use. There may be alternatives way to achieve the same result, without the use of cannabis. Or it may be that the level of relief that cannabis affords the user mean that use is not likely to stop and so strategies for management and self care will be more important.

Watch for warning signs:

Clients who experience poor mental health and smoke cannabis should be encouraged to learn their own warning signs that their mental health is deteriorating. By becoming aware of these warning signs (e.g. difficulty sleeping, angry thoughts, difficulty getting out of bed) the client will have indicators that they need to cut back or discontinue cannabis use or to seek help.

Make lists of essential tasks:

Support agencies should assist the client to make sure that tasks that support good mental health take place. This could include diaries and lists, making sure that people attend appointments, take medicines, collect prescriptions etc.

Assertive outreach:

Where clients with an identified mental health problem start to disengage from support services, it may be appropriate for support workers to proactively outreach to the client. This is especially useful when a client may have disengaged due to increasing cannabis use, but before this has had a serious negative impact on mental wellbeing.

Sleep

Lots of users identify that cannabis helps them get to sleep. This is more than a placebo effect; for many people cannabis does help people experiencing problems with sleeping get to sleep. The down-side is that cannabis seems to have a negative impact on REM sleep for a number of users. REM sleep is the part of sleep where most dreaming takes place and seems to be the point where the mental process of rest and recuperation takes place.

People who have had an inadequate amount of REM sleep may feel less rested and awake feeling tired and drained; there is also some evidence that lack of REM sleep may be associated with some symptoms of depression.

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I4: CANNABIS USE: RISK EDUCATION STRATEGIES

Smoked in spliff with tobacco


The most prevalent way of consuming tobacco in the UK is to smoke it in a spliff. This is a construction of cigarette papers, in which tobacco and cannabis (resin or herbal cannabis) is placed. While it is the most common method of use, it is also the most damaging to health.

In **spliff** construction, the unlit end of the spliff is held open by a rolled tube of cardboard – the **roach**. This does the opposite of a cigarette filter: rather than filtering out excess tar and carbon particles, the filter allows these to pass unimpeded into the lungs.

Having said that, spliffs allow effective regulation of cannabis smoking. In social settings, where a single spliff is shared around a number of smokers, each smoker takes in a small amount of cannabis, and so tends not to get very intoxicated very quickly compared to other routes.

It should be stressed that for people who don't smoke cigarettes, smoking spliffs with tobacco can lead to nicotine dependency. And for some cannabis users, cannabis use can escalate as people smoke greater quantities to meet the craving for nicotine rather than a craving for cannabis.

Having said this, many social smokers find that smoking spliffs is relatively easy to regulate, avoiding excess intake at any one time. Nonetheless, smoking spliffs does cause lung damage, and there are some strategies that can reduce some of these risks.

<p>Spliffs</p>  <ul style="list-style-type: none"> • Inherently damaging to lungs • Mix of tobacco and cannabis 	<ul style="list-style-type: none"> • Avoid use of tobacco
<ul style="list-style-type: none"> • Roach increases amount of toxins taken in to lungs 	<ul style="list-style-type: none"> • Explore other routes of use rather than smoking in spliffs with tobacco • Use filter instead of roach
<ul style="list-style-type: none"> • Smoke taken deeply in to lungs and held there 	<ul style="list-style-type: none"> • Draw in smoke less deeply • Hold smoke in for less time
<ul style="list-style-type: none"> • Type of tobacco used 	<ul style="list-style-type: none"> • Use of low-tar tobacco • Use of non-tobacco smoking mixtures • Roll with least tobacco possible
<ul style="list-style-type: none"> • Materials used 	<ul style="list-style-type: none"> • Use as little cigarette paper in the preparation as possible • Use undyed card for roach material
<ul style="list-style-type: none"> • Build up of toxins • Hot smoke 	<ul style="list-style-type: none"> • Try to avoid smoking right down to the roach • Use a longer roach

Blow backs

A “blow-back” is a way of sharing a spliff, often but not exclusively between partners or close friends. The person giving the blow-back places the lit end of the spliff in their mouth, being careful that the hot end doesn’t touch their lips. The recipient takes the roach end in their mouth. The person giving the blow-back then blows through the spliff, and the recipient inhales, inhaling large amounts of smoke.

- Risk of burns to the lips or the roof of the mouth to donor
- More carbon particles for recipient
- Avoid blow-backs
- Take great care to reduce excess ash or loose tip if giving or receiving blow-backs.

Pipes, bongs, chillums and related products

There are a wide range of pipes, home-made or shop-bought, that are used for smoking cannabis. These are used for the smoking of resin and herbal cannabis. Most people do not add tobacco to the smoking mixture.



A standard **pipe** consists of a bowl, stem and mouth piece. They are usually made of glass, wood or metal, though stone, bone, and resins are also used. They can vary in size



from a small pipe enough for one person to use once to considerably larger.

More sophisticated pipes use longer pathways to cool the smoke.



Home-made pipes are often fashioned from water bottles using plastic water bottles and silver foil. Some filter the smoke through water (see water pipes) and others do not. If made badly, home-made pipes can mean that plastic fumes and fumes from aluminium foil are also inhaled. Similarly use of aluminium drinks cans as makeshift pipes should be discouraged.

A “**chillum**” is typically a conical tube, made of stone or resin. A heat proof grooved stone partly obscures one end and this end is packed with herbal cannabis/tobacco mix. It is heated from above and the smoke is inhaled through the tube. The smoke tends to be hot, harsh and is unfiltered. It is probably one of the most damaging ways to smoke cannabis.





Water pipes allow smoke to be drawn through water before it is inhaled. While the active cannabis will not dissolve in water, other contaminants such as tar and carbon particles will be trapped. An amount of carbon monoxide will also remain in the water. The smoke is cooled by the water, and so irritates the lungs less.

Vaporisers: Vaporisers work by applying a concentrated heat source to the cannabis, meaning that rather than partially combusting, the THC is vaporised by the heat. They are not used in conjunction with tobacco. Because vaporisers don't burn the cannabis there is less inhalation of carbon monoxide, tar, or carbon particles.



The main psychoactive components in cannabis have very different flash-points (where they vaporise and can be inhaled). THC vaporises below 150°C while CBD and CBN vaporise at just over 200°C. So a typical vaporiser will deliver a great deal of THC but very little CBD.

General problems with pipes:

Using pipes avoids the problem of inhaling tobacco smoke with cannabis. However, use of pipes or similar is NOT trouble free.


For some users, pipe-smoking can encourage more rapid intake of large amounts of cannabis, and more frequent use in a single session.

Rather than getting moderately intoxicated over a period of time, one is likely to become much more intoxicated more quickly.

For some people, smoking pipes can become relatively compulsive, resulting in larger quantities consumed in less time. Others manage this process, letting a pipe go out and relighting it over a period of time.

On balance, smoking cannabis in spliffs with tobacco causes more lung damage than pipes. However for some users, pipes can be hard to manage and can result in larger, more frequent use.

Pipes – simple	<ul style="list-style-type: none"> • Carbon and other particles in smoke will damage lungs 	<ul style="list-style-type: none"> • Use a good quality screen and ensure that screen is changed frequently. • Some people advocating preheating screen to burn off deposits
Smoked through non-water pipes, chillums, etc	<ul style="list-style-type: none"> • Smoke may be very hot • Risk of lips burning on short pipes • Build up of oil and deposits in pipe 	<ul style="list-style-type: none"> • Use pipe designed to cool smoke • Clean pipe frequently to reduce build up deposit
Pipes – water cooled;	<ul style="list-style-type: none"> • Fewer risks than other routes of smoking; 	<ul style="list-style-type: none"> • Reduce quantity used to avoid getting overly intoxicated

	<ul style="list-style-type: none"> • More expensive equipment for quality pipes • Greater quantity of drug in each lung-full. 	<ul style="list-style-type: none"> • Use glass pipes, not plastic • Change water regularly • Keep bowls and tubes clean • Try to take breaks to avoid building up compulsive behaviour.
Vapourisers	<ul style="list-style-type: none"> • Expensive • lack portability • less tar/soot/carbon monoxide • more THC, less CBD 	<ul style="list-style-type: none"> • education about risks of vaporiser use • consider running pipe hotter to ensure CBD is vaporised
Exotica:		
Hot Knives: Kitchen knives are heated until they are red-hot. A small pellet of cannabis resin is placed between the blades so that it vapourises and the fumes are inhaled, typically through a bottle held in the mouth.		
<ul style="list-style-type: none"> • Risk of burns from hot knives • High intake of cannabis increases risk of taking unpleasantly large amounts • Don't handle hot knives in the kitchen when intoxicated 	<ul style="list-style-type: none"> • Don't handle hot knives in the kitchen when intoxicated 	
 <p>The diagram shows three stages of a bucket bong. In the first stage, a person is shown inhaling from a pipe that is submerged in a bucket of water. In the second stage, the person is shown exhaling, and the water level in the bucket rises. In the third stage, the person is shown inhaling again, and the water level in the bucket falls. This process forces the smoke into the lungs.</p>	<p>Bucket bongs and gravity pipes: cannabis smoke is drawn into the bottle by means of a vacuum. The smoke is then forced into the lungs by pushing the bottle down again.</p>	
<ul style="list-style-type: none"> • Causes large intake of smoke – increases intoxication 	<ul style="list-style-type: none"> • Take care not to overdo it. • Find better ways to impress your mates 	
Eating or drinking cannabis: Cannabis is cooked in to biscuits or cakes, or brewed into tea or other drinks.		
<ul style="list-style-type: none"> • Effects come on slower (45mins+) but last longer 	<ul style="list-style-type: none"> • Wait for effects to start; don't take more until first dose have had effect. • Allow sufficient time for effects to wear off before driving or doing other essential tasks. 	
<ul style="list-style-type: none"> • Harder to regulate 	<ul style="list-style-type: none"> • If cooking, make sure cannabis cakes are 	

<ul style="list-style-type: none"> • amount taken: easier to • take more than intended 	<ul style="list-style-type: none"> • clearly marked • Avoid eating lots of cakes when experiencing munchies • Take a little to start with and allow time for effects to come one.
<ul style="list-style-type: none"> • Cannabis not always • hygienically produced 	<ul style="list-style-type: none"> • Safer not to eat imported cannabis resin; you don't know what's in it • Cook with herbal cannabis or good quality cannabis resin.
Drug Effects	
Appetite stimulation	<ul style="list-style-type: none"> • Weight gain • Poor diet • Education about diet • Shopping and cooking skills
Sleepiness	<ul style="list-style-type: none"> • Slowed reaction • Drowsy • Avoid driving or operating machinery
Anxiety and paranoia	<ul style="list-style-type: none"> • May make anxiety worse or cause panic attacks • Reduce amount used; • Avoid stronger strains of cannabis • Don't use if feeling especially edgy or tense • Recognise that although cannabis may make the user feel more relaxed it can increase anxiety over time
May affect concentration and memory	<ul style="list-style-type: none"> • Can impair work or Education performance • May miss important events or dates • Set lists of tasks and priorities and do these before using cannabis • Use a diary or post-it notes to highlight important tasks and notes • If memory or concentration is starting to suffer, may be an indicator of a need to cut back cannabis use.
Mental Health	<ul style="list-style-type: none"> • Exacerbate or trigger mental health problems • Understanding of relationship between drug use and mental health • Education • Avoid strong strains of cannabis with high THC content • Recognize warning signs and adjust use before problems become severe • Acknowledgement of positives and negatives of drug use

15: Management

Cannabis use can be successfully managed. By far the majority of cannabis users can and do manage their use and their use, while having the potential to become problematic is rarely in fact a problem.

Some of the following strategies can assist people in managing their cannabis use and reducing the chances of this use becoming problematic:

Establish rules relating to use:

Users should try and establish personal rules and boundaries for self management.

Examples of this could include:

- not using on school or work days;
- avoiding use in the first few days of the week
- setting maximum amounts to be smoked in the week
- avoiding smoking before a certain time each day
- setting tasks that need to be completed before use

When the user routinely breaks these rules, this may be an indicator that the individual is losing control over their substance use and this is an important indicator that use may become more problematic.

Maintaining interests and friendships that do not revolve around use:

Cannabis use is a social activity and this can reinforce usage patterns. It may be helpful to maintain social activities and friendships that are non-cannabis related. When all social and recreational activities feature cannabis, it will become increasingly hard to avoid the drug.

Recognise and act on warning signs:

For people who have experienced previous problems with cannabis, it will be important to identify previous warning signs that may indicate a recurring problem. This may be signs and indicators that use is becoming less controlled. Examples could include:

- breaking of previously-set rules
- failure to complete important tasks
- using at inappropriate times (e.g. during work)
- preoccupation with use
- impaired function

Where warning signs are identified, this should act as a catalyst to change.

16 Cannabis dependency

Cannabis use can lead to dependency; while this will be an unpopular concept in some quarters, it is important to essential to acknowledge that it can and does happen.

Characteristics of cannabis dependence can include:

- tolerance: increasing dosage or strength to achieve same level of effect
- symptoms of withdrawal: physical or psychological symptoms when cannabis use is discontinued
- continuation of use despite awareness of negative effects
- prioritisation of substance use over other essential or important tasks;
- preoccupation about use
- effort goes in to continuing use
- concealing or lying about use

Have I got a problem?

The checklist above is a starting point. It is a useful way of establishing use is starting to become more of a problem. Overleaf, it has been expanded in to a self-completion questionnaire to help establish if dependency may be an issue. Additional strategies for helping people to assess and review their use could include the following:

Cannabis diaries:

Just as people would use alcohol diaries, so cannabis diaries can be a useful tool for assessing and reviewing use.

A cannabis diary could be a record that records the following:

Date and time, date and time, amount used, who with, place, events that led up to use, how you felt prior to using, other factors.

The diary should also record the amount spent per day or per week on cannabis so that this can be added up.

Many users are taken aback when they realise how much they are using and how much they are spending. This can be a useful tool for promoting motivation. It can also be used to identify factors that may contribute or trigger cannabis use.

Attempting to abstain:

Many (young) people are insistent that they can “stop whenever they want.” A useful strategy is then to agree that they set themselves a target (e.g. a week) to demonstrate this. If they don’t achieve this target, this can provide a useful chance to explore their control over their drug and explore why they felt unable to sustain this period of abstinence.

Self-review:

It is essential that people can identify ways in which their use has impacted negatively if they are to feel motivated towards change. This may be for example: money wasted, social engagements missed, social activities that have been less fun than they could have been, impaired memory and concentration etc.

By working with the person to identify both positives of drug use and negatives, this can help promote a process of recognising that some aspects of substance use may be problematic and need to be addressed.

Tools for managing use can be found on the Cannabis self-help website; details are included in the appendix.

What goes in to cannabis dependency?

In order to help people understand what goes in to their dependency, and to side-step the whole “physically addictive” v “psychologically addictive” a different model may be useful.

I developed this model a number of years ago to help illustrate factors that go in to shaping dependency and will need to be addressed if the person is going to move on from their dependency.

The model is based around four key aspects of dependency:

A physical aspect: by which I mean how much physical relief (e.g from pain) does the person get during use. And how much physical distress does the person experience during withdrawal or when abstinent;

Psychological aspect: how much psychological pleasure or relief the person gets during use (e.g. feeling relaxed, calm, happy, absence of negative mental health symptoms) and how much psychological distress the person experiences when they withdraw or are abstinent. This could include cravings, low mood, depression, inability to relax, irritation, anger or bad memories for example.

Ritual aspects: when a person has been using cannabis for a long time, behaviours can become heavily ingrained. Some, will be the day or week writ-large – getting home after school, having a spliff in the bath, going out and getting a bag of weed. And some will be small rituals, such as the habit of skinning up. The more the person has strong patterns of use, the more important it will be to help identify and break these patterns.

Social aspects:

For many people is a social drug; for others it is an antisocial drug. For those for whom it is a social drug, it may be that family and friends use it, and have a positive non-

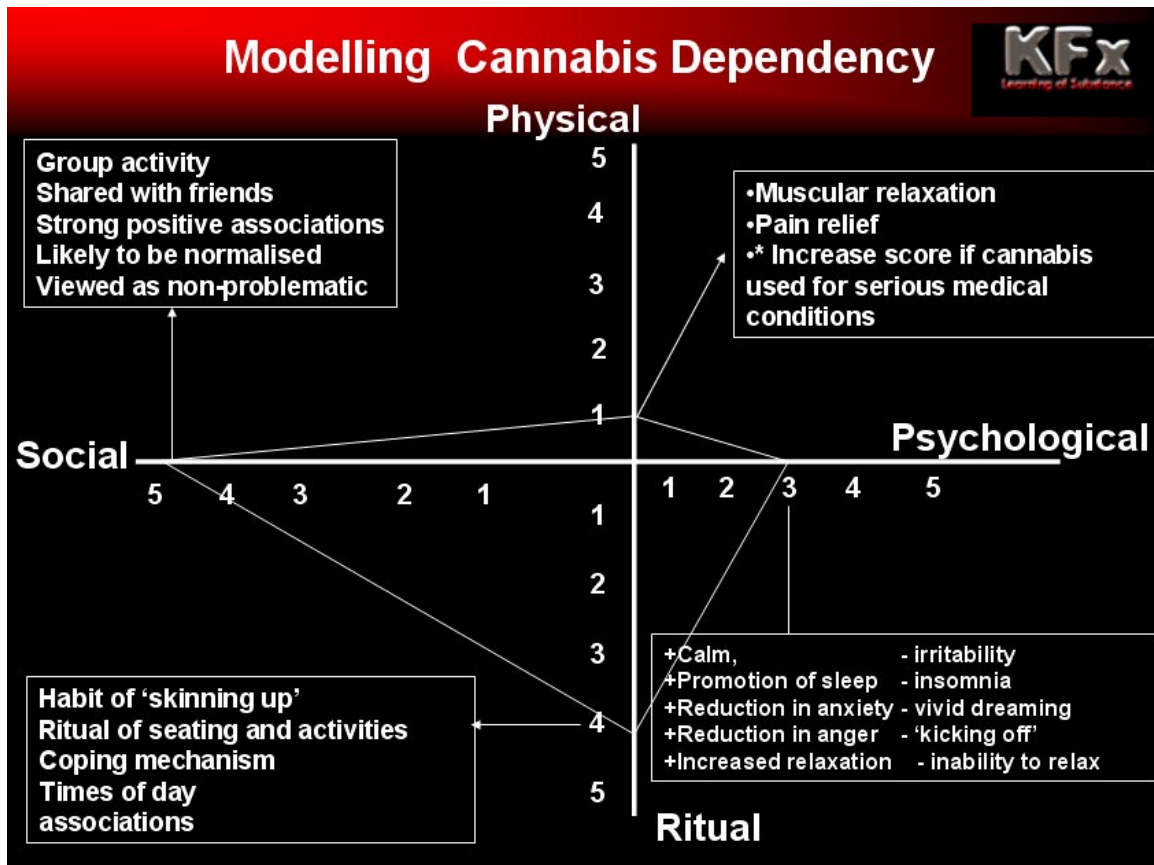
problematic view of it. There may be social pressure to use cannabis or at least it is a common part of social activity.

For someone for whom cannabis is a strongly social drug, leaving cannabis behind may have an impact on friendship groups and may even mean changing friends.

For others cannabis may be an antisocial drug: it may have contributed to a person being socially isolated and withdrawn and so it may be a way of coping with a lack of friends and family.

Again, unless social isolation and awkwardness are addressed, the use of cannabis may well still have a social function, making it harder for the person to leave their cannabis use behind.

Using a model like this can help a person understand the nature of their cannabis dependency and what they will need to change to help overcome this dependency.



Cannabis and Tobacco: working with two dependencies

Most UK cannabis smokers use cannabis with tobacco. Some of these are people who do not typically smoke tobacco; others are regular tobacco smokers who also smoke cannabis. In an ideal world, people would withdraw from both substances but, as this is a tall order, more thought needs to be given to supporting people who are effectively trying to cope with these two dependencies.

People who were not previously smokers but have used cannabis and tobacco in spliffs may inadvertently become addicted to nicotine. So their cravings may actually be for nicotine rather than cannabis (though these may become merged in to a general desire for spliffs). Simply acknowledging that this may be the issue will help lots of people cope.

Stopping cigarettes – but carrying on spliffs with tobacco:

Some people who are regular cigarette smokers and cannabis smokers endeavour to stop smoking cigarettes but continue to smoke spliffs containing tobacco.

This approach doesn't tend to work very well.


Typically, the smoker will increase their level of spliff smoking. The dependency on tobacco tends to lead to a level of self-deception where the tobacco habit is secretly 'fed' by the users smoking more spliffs – while pretending that they are being righteous by only smoking spliffs.

A key indicator for this behaviour is strong anticipation of spliff smoking, and very heavy and greedy drawing on a spliff at first; this is the point where the nicotine-hungry smoker is topping up on nicotine as a priority rather than cannabis.

In the end the person tends to lapse back on to normal cigarettes.

Stopping tobacco use but carrying on with cannabis use:

For people who are intent on stopping smoking tobacco but wish to continue to use cannabis, options include the use of tobacco-free smoking mixtures, smoking spliffs with pure weed, eating or drinking cannabis or use of pipes etc.

Options 

- Cessation of cigarette use – but continues to smoke spliffs containing cannabis and tobacco –**
Low success rate; spliff smoking likely to escalate to fulfill nicotine craving; lapse back on to cigarettes likely
- Cessation of cigarette use – but continues to smoke cannabis without tobacco (pipes, straight herb, bongs etc)**
Marginally better for people determined to continue smoking cannabis; but pipe/bong use likely to escalate, and use reinforces smoking behaviours
- Cessation of cigarette use – but continues to use cannabis but moves to eating it**
Healthiest option for people who want to continue cannabis use but want to stop all smoking
- Cessation of cigarette and cannabis use**
Healthiest option but is a big challenge

People going down this route should be vigilant to ensure their cannabis use does not escalate due to the absence of nicotine. Cannabis may, in the short term, find that cannabis helps with withdrawal from nicotine (coping with anxiety, low mood, craving).

Some people going down this route end up using pipes or bongs and there is a significant risk that frequency of use and amount used can escalate as a person packs pipe after pipe – trying to fill their craving for nicotine and instead overdoing it on cannabis.

It may also be that the process of rolling (tobacco-free) spliffs and the habit of inhaling smoke can reinforce a person's desire to smoke and may increase the chances of relapsing.

By using a variety of different tools of administration – vaporisers, pipes, eating, tobacco-free spliffs – someone coming off tobacco may still be able to manage their cannabis use.

Stopping both:

The best option is clearly to discontinue both tobacco and cannabis. For smokers who intend to stop using cannabis and tobacco, coming off both can be difficult.

Some people find they can stop both without other interventions. Other people report that stopping tobacco with nicotine replacement therapy and stopping cannabis is easier than without NRT.

If stopping both at the same time if coming off both at the same time is not feasible then it is probably better to come off the cannabis first and then withdraw from tobacco afterwards. This is primarily because smoking without cannabis is more feasible an option than cannabis without smoking.

In this model, the person would complete their cannabis withdrawal, and be able to cope with their cannabis cravings, stressful situations and then start nicotine withdrawal.

The process would be slower and could take several months to complete both stages of withdrawal.

Stopping Cannabis:

Stopping smoking cannabis is less easy than it sounds; a combination of techniques will yield the best results, which could include the following:

- identification of a time/date when you intend to stop
- writing down reasons for wanting to stop
- discarding cannabis-related paraphernalia: for your ardent cannabis smoker this will be a wrench – but this does illustrate how powerful the associations have become

- informing trusted friends that you are stopping and why
- getting rid of numbers of suppliers and/or getting rid of any remaining drugs
- having identified triggers (e.g. music, TV etc) prepare to avoid those triggers
- have a strategy for dealing with cravings.
- Learn techniques to help you relax and feel calm when feeling restless or craving
- Be aware that sleep will be disrupted and dreams more vivid; develop techniques for getting to sleep and staying relaxed
- Develop a plan for the day and the week and stick with it
- Look at diet and healthy foodstuffs
- Be aware of improvements in energy levels, memory and concentration.
- Remember and rehearse reasons why you are not using
- Treat yourself for your achievements
- Don't play with the idea of "just a little bit, as a treat..."

Withdrawal

Users can and do experience cannabis withdrawal and this can be a significant cause of lapse. People who aren't prepared for experiencing symptoms can be very taken aback by them, especially if they have repeatedly told that "you can't become addicted to cannabis."

Unlike substances such as alcohol or opiates, withdrawal isn't typically a physically distressing process, but can cause high levels of anxiety, disrupted sleep and irritability.

Awareness of likely withdrawal symptoms and development of strategies to cope with these can increase the chances of successfully quitting cannabis.

Physical pain:

For most people, there should be little physical discomfort experienced in withdrawing from cannabis, aside from some minor aches and possibly increased sensitivity to pain in the short term.

However, for others withdrawing from cannabis may reveal underlying, previously unnoticed physical ailments such as backache or joint pain.

For people who have been self-medicating with cannabis to cope with muscle spasticity, physical pain, joint inflammation or similar, then withdrawing and abstinence from cannabis could be significantly painful.

For people in such a situation, an exploration of other sources of pain relief or muscular spasm relief may be required in order to facilitate withdrawal from cannabis.

Psychological issues

The psychological aspect is likely to be important for many people trying to stop dependent cannabis use. At its most severe, cannabis may be being used to mask or self

medicate an underlying mental health problem such as schizophrenia. When the person stops using cannabis, underlying symptoms may become more severe or more troubling. In such cases it is likely that the person will need professional assistance to address their mental illness in order to cope without cannabis.

Even if serious mental illness is not present, dependent cannabis users may experience a range of distressing psychological symptoms which will need to be addressed when stopping.

Not all of the following symptoms will be present for all users.

Anxiety: A large number of people stopping cannabis some level of anxiety. This is likely to be especially pronounced if (a) the person attempts to stop smoking cigarettes at the same time and/or (b) cannabis use too place as a way to cope with stress and anxiety.

Interventions: if stopping nicotine at the same time as stopping cannabis, explore use of NRT. Learn about breathing exercises and relaxation techniques to help reduce anxiety. Maintain a healthy diet and consider reducing stimulants such as caffeine.

Use exercise as a way of reducing nervous energy. If there are underlying reasons for anxiety then try working with a friend or a counsellor to identify and resolve causes of anxiety.

Anger: Dependent users have reported finding anger harder to manage when withdrawing from cannabis. Some people find themselves “kicking off” over trivial incidents, and others say they find it hard to reign their anger in once they get worked off. This may be especially problematic for people who have previously managed feelings of anger or frustration by smoking cannabis.

Interventions: as with anxiety, relaxation techniques may help. But if anger is a significant issue, more professional help may be useful to help understanding reasons for anger and strategies for managing it.

Bad memories: Cannabis isn't as powerfully amnesiac as other drugs like alcohol, but can still help people block out painful memories. These can be more problematic and uncomfortable during withdrawal and when abstinent. Again, counselling to discuss and work through painful memories will be important if this is a significant issue.

Craving: THC in cannabis causes levels of the reward brain chemical dopamine to go up. After a period of regular use the brain can become conditioned to expect and demand this reward and so the person can crave cannabis. The reward parts of the brain are trying to get you to do something that the brain associates with reward.

Over a long period of use, heavy use can exhaust the brain's stocks of dopamine. They

will regenerate overtime, but in the short term this can leave the person depressed, demotivated and craving. The brain's normal response to craving – using more cannabis – doesn't work well because there's not much dopamine left and so the person still feels unrewarded and craving more.

Understanding what's going on behind the scenes is important. But understanding without tools to cope isn't that useful. So the person will also need to explore craving management strategies and ways of helping dopamine levels recover – through abstaining from substances, and healthy diet and natural sleep.

Sleep disruption:

If there is one thing that really gets in the way of cannabis withdrawal for a significant number of people, it's disrupted sleep. Heavy users, especially those who have used cannabis in the late evening, are very used to entering cannabis-induced sleep rather than 'normal' sleep.

Cannabis appears to help people enter deep sleep but in doing so bypass the normal stages of REM sleep where dreaming takes place. Heavy users appear to wake up from deep sleep too, rather than from REM sleep, leaving the person feeling woolly headed, groggy and physically but not mentally rested.

When the person stops using cannabis, the person may find it difficult to get to sleep, experiencing “too much” REM sleep, tossing and turning and feeling too awake. The temptation at this stage is often to have a quick smoke to help get off to sleep.

Sleep may be an especially significant issue if the person has a long history of substance use (including cannabis and alcohol) to induce sleep since puberty. For some people, all post-adolescent sleep may have been substance-induced and so the person will need to learn how to sleep “naturally” for the first time.

For most people, there should be an improvement in sleep within four weeks or so but some people may experience poor quality for sleep for three months or longer.

There is a wealth of information about “sleep hygiene” and strategies for improving sleep naturally. These include:

- **Environment:** good temperature control, dampening of external noise, effective curtains to reduce light, comfortable bed and pillows;
- **Diet:** avoid foods which are hard to digest before bed (e.g. cheese), avoid caffeine and sugars in the evening, avoid alcohol before bed, stay adequately hydrated, increase intake of foods which contain tryptophan (milk, nuts and pulses, poultry) as this can help increase levels of serotonin which in turn moderates sleep levels.

- Designate space for sleeping: bed is for sleeping; avoid working in bed as it changes the associations that the bed has for you
- Develop a “sleep” ritual: wind down, relax, maybe have a bath, avoid thinking about worries or problems before bed. If these are troubling you write them down so they are “out” of you for dealing with tomorrow;
- Don’t toss and turn: if you can’t get to sleep, don’t become increasingly frustrated with sleeplessness. Get out of bed, go and get a glass of water, relax for a while and then try again;
- Practice meditating and self-hypnosis: don’t think about trying to get to sleep, think about a relaxing, soothing image, a memory or a thought, and let this fade in to sleep;
- Avoid computers and playstations prior to sleep as they can increase brain activity and inhibit sleep;
- Get exercise in the day and avoid napping: if you slept badly, you will feel tired the next day. But sleeping the next day will just store up problems for the next evening. So stay up and about so that by bed-time you are tired. Then go to sleep.

Vivid dreaming:

Because heavy cannabis use appears to interfere with the amount of REM sleep that the person gets, they may not dream “properly” when using cannabis (or may not remember their dreams).

For some people, on stopping cannabis use, they experience very vivid dreaming. These can be so vivid that they feel real and may jolt the person out of sleep, which is especially trying if the person is struggling to get to sleep.

For some people, the dreams may be scary or upsetting, especially if they are linked to bad memories, trauma or abuse.

Understanding that this is a common symptom of cannabis withdrawal and typically fades after a few weeks may, in itself, be all that is needed and help the person quote.

However, for other people, helping the person deal with dreaming may be useful. There are some strategies for “managing” dreams that may help. Research around “lucid dreaming” to find out more about this subject.

17: Cannabis as medicine:

The use of cannabis as a medicine is not a new concept and dates back many centuries. It has been used as a treatment for pain and to treat a range of other ailments.

More recently, cannabis has been used illicitly as an intervention to relieve symptoms for a range of ailments including:

- Muscle spasms
- Glaucoma
- Arthritis
- Multiple Sclerosis
- Appetite loss
- Nausea

In most parts of the world has been illegal. Some individuals and groups have made cannabis available as medicine, and risked prosecution as a result.

After a prolonged trial period, the first cannabis-based products based on plant extracts have been licensed for use in the UK.

Trials conducted by GW pharmaceuticals have been conducted under Home Office licence. They have been using whole-plant extracts, with plants carefully cross-bred for their chemical composition.

GW pharmaceuticals⁵ have been investigating their potential in the following:

“analgesic, anti-spasmodic, anti-convulsant, anti-tremor, anti-psychotic, anti-inflammatory, anti-oxidant, anti-emetic and appetite-stimulant properties and research is ongoing into neuroprotective and immunomodulatory effects.”

Part of the key to GW pharmaceuticals approach has been increasing the amount of compounds other than THC and this highlights the need for whole plant extracts. Drugs that have a relatively high level of CBD appear to have more therapeutic benefits.

GW had been trying to get a sublingual spray “**Sativex**” licensed in the UK. This license was granted in June 2010 although prescribing is not yet widespread in the UK. At present THC and CBD remain Schedule 1 drugs (meaning that they can only be supplied or possessed under Home Office Licence) putting Sativex in the unusual situation of being a licensed medicine which is illegal to possess! To get around this GP’s currently enjoy an open general licence to prescribe Sativex and THC and CBD will be rescheduled in due course.

⁵ <http://www.gwpharm.com/index.asp>

For people without access to Sativex, people contemplating the use of cannabis as a medicine should be aware of the following:

- There is no cast-iron defence of medical need. A person found in possession of cannabis could still be prosecuted and convicted even if they could demonstrate medical need. The case would need to be heard before a jury and while a sympathetic jury may acquit, others could convict.
- Supply of cannabis, even when for medical need, remains a criminal offence and can carry a custodial sentence. Similarly, cultivation can carry a substantial penalty.
- Inciting or encouraging people to use cannabis could construe an offence and those discussing its medical use should remind potential users that it remains illegal and may have unforeseen side effects
- For people who have compromised immune systems, it will be important that cannabis is prepared to a high standard and is free of fungal or bacterial contaminants
- Drinking and eating cannabis will be less damaging to lung health; however, it should be remembered that it may not be sterile, especially imported hash.
- The smallest amount of drug should be utilised to achieve relief from symptoms. The aim is not to get intoxicated. It may be necessary to experiment with strains of cannabis to find one that maximises benefits.

I8: Cannabis Testing

Cannabis shows up in tests for far longer than most other commonly used substances. Most testing procedures will test urine, saliva or blood. More rarely, hair testing will be used. This method is more expensive but can reveal drug use over a longer period of time.

Cannabis metabolites are retained in fatty tissue and gradually metabolised out of the body. This, and a number of other variables, make it hard to predict how long cannabis will be detected in the body. The following can affect detection periods:

- Strength of the cannabis: cannabis that contains a larger amount of THC will be detectable for longer.
- Frequency of use: infrequent use will show up for a shorter period of time than regular use
- Amount used: heavy use will show up for longer
- Build of user: metabolites build up in fatty tissue; people with more body fat will show up cannabis metabolites for longer;
- General metabolism: people with faster metabolisms and more active lifestyles will clear cannabis faster than people with slower metabolisms and more sedentary lifestyles.

Based on these variables detection periods could be as follows. Please note that these are illustrative only and should not be considered definitive detection periods.

	Low End	High End
One-off use	2 days	4 days
Infrequent light use	2-4 days	5-8 days
Moderate frequent use	5-10 days	10-20 days
Heavy frequent use	20-30 days	40-50 days

Workplace testing for cannabis has increased over the past few years, and with it a range of products that claim to ensure clean urine tests. The efficacy of these products is sometimes dubious.

It is possible for people to test positive to cannabis without having used the drug. Passive inhalation can lead to positive results. And interestingly, legal products such as hemp-seed oil can, if used in high doses and for sustained periods, lead to a positive urine result. The quantities in question would not lead to intoxication but could jeopardise your employment. We know of at least one woman who lost her job after failing a urine test caused by ingestion of hemp seed products.

19: Weights, Measures and Costs

Cannabis prices vary massively according to product, quality and local availability. This table is merely for guidance and the author really does not want to get into protracted arguments with people who pay more (or less) than the prices here.

Since 2007, cannabis prices have gone up and in some areas doubled or even trebled. Some of this is probably related to increased police enforcement activity. The rest may be due to increased monopolisation and consolidation of the market allowing for greater stockpiling and price fixing.

Either way we've reached a point where small quantities of herbal cannabis are being sold for huge amounts of money.

Cost of Drugs						
Conversions		1 Ounce=28.3g				
Quantity			Price Range			Comments
			Low	Med	High	
Cannabis						Strength: 2%-25%THC
1kg	1000g	35oz	£1000	£2500	£3500	Only at supply level
Nine-bar	9oz	255g	£300	£650	£1000	Low-level supply
10z		28.3g	£60	£150	£250+	Would last a very heavy smoker a week and a more moderate smoker a month or two.
½ Oz		14g	£50	£80	£150	
¼ Oz		7g	£30	£40	£50	Enough for a week to a fortnight for a moderate to heavy smoker
1/8 Oz	Eighth	3.5g	£20	£30	£40	Two people for a moderate weekend
1/16 Oz	Teenth	1.75g	£10	£15	£20	Two people for a heavy night or a lighter weekend
£5 deal		c.1				Cheap street deals usually for younger people
£10 deal		c. 2g				

20: Legal Issues

Introduction:

In January 2009, cannabis was moved from Class C back to Class B within the Misuse of Drugs Act 1971. This reversed the previous decision taken in 2004 to move cannabis from B to C. As a result of this move back to class B, the penalties for possessing cannabis have once again changed.

As part of the reclassification, new strategies for the policing of cannabis are to be introduced.

Is cannabis legal?

No! Cannabis remains a controlled drug. The production, possession and supply remain an offence, and could bring a criminal record and a custodial sentence.

What does the move from class C to class B mean.

The main change is that the maximum penalty for possession of cannabis goes up from two years to five years. In practice such a high sentence is not going to be imposed.

The penalties for supply remain at a maximum of fourteen years, and police will continue to have the power of arrest.

Why was cannabis moved back from Class C to Class B:

Good question! It's possibly because the Home Secretary that sending out tough messages on cannabis were more important than the evidence base provided by the ACMD. It may be because the Government believes that the reclassification will push use down. But it's certainly not because of an evidence base that reclassification will reduce risk.

How is cannabis meant to be policed?

For people over the age of 18, a "three strikes" approach is going to be implemented for simple cannabis possession. This would mean the following:

1st offence: you would get a "cannabis warning." This would be recorded, but is not the same as a criminal record or a caution.

2nd offence: you will receive a Penalty Notice for Disorder, which means you would be required to pay an £80. This would be recorded on the Police National Computer but is still not the same as a Criminal Record.

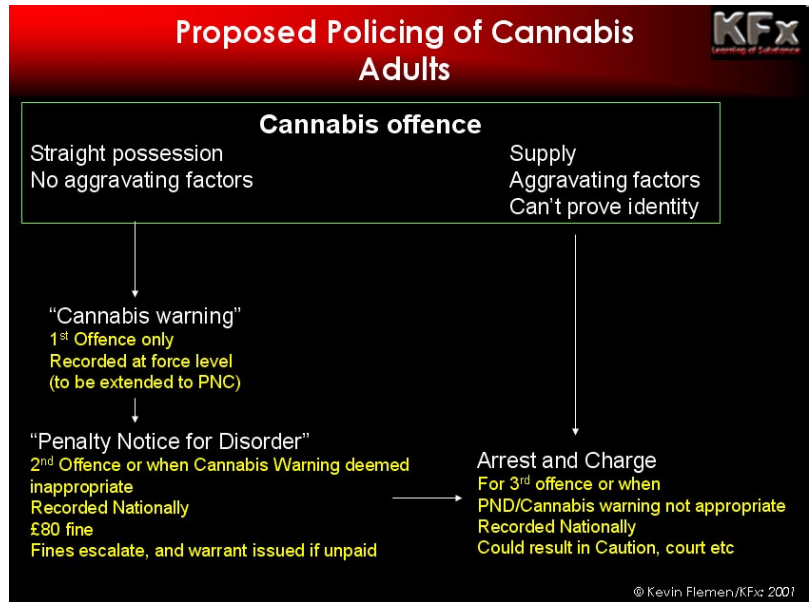
3rd offence: arrest and charge. This could result in a court appearance and a criminal record.

Have these powers come in to force?

Yes, they came in to force in January 2009. However, not all Police Forces in England and Wales have implemented these powers at the time of writing.

Is a “cannabis warning” the same as a caution?

No. A “cannabis warning” is less formal. It doesn’t count as a criminal record, but it will be recorded on a force-wide basis so it may come up during checks. It may also come up as part of an enhanced CRB check.



What happens when you get a “cannabis warning.”

The guidance says that the police should:

- See if other more serious offences such as supply may be committed
- Seize the cannabis
- Issue a “cannabis warning”
- Explain that this will be recorded and documented but that it does not constitute a criminal record.

What is a Penalty Notice for Disorder?

These are fixed penalties that can be used for certain offences. To get a PND, police would examine your drugs to check it was cannabis, and confirm your identity. This could include using evidence that you had on you to confirm you are who you say you are and to confirm your address.

If the police were unable to confirm your identity or your address, then they would not be able to issue a PND.

A PND for cannabis would be £80 and should be paid or challenged within 21 days. If this doesn’t happen the fine would increase and could ultimately result in court action or a criminal record.

Not all police forces are issuing PNDs.

Can people under 18 get a “cannabis warning” or a Penalty Notice for cannabis

No, under 18s cannot get cannabis warnings or PNDs for Cannabis Possession. So they will continue to be handled under the Crime and Disorder Act. They could end up with a Reprimand, a Final Warning, or being charged and prosecuted for these offences.

The revised guidance says:

Young People aged 10 to 17 years of age cannot be given a Cannabis Warning.

They must be dealt with under the provisions of Section 65 of the Crime and Disorder Act 1998. It is accepted that, in some cases, a police officer may find it necessary to arrest that person in order to obtain the admission/evidence required. However, consideration should be given to less intrusive means if possible such as taking the young person home, verifying their name and address and referring the case for a disposal decision.

The necessity test is explained below and the officer must justify any decision to arrest based on individual circumstances.

They should then be dealt with as detailed in the Crime and Disorder Act. The ACPO guidance says:

This means that any young people under 18 will no longer generally be arrested. Depending on the nature of the offence and the young person’s offending history, the young person could be dealt with as follows:

- *a reprimand if it is the young person’s first offence and the nature of the offence is sufficiently minor (e.g. possession of a smaller amount of cannabis)*
- *a final warning, with referral to a Youth Offending Team, where it is a second offence or is considered more serious*
- *charged with possession of a controlled drug and dealt with by court for a third offence or if the offence is considered to serious to be dealt with by reprimand or final warning.*

The ‘three strikes’ offences do not all have to be cannabis-related. So a person who had received a reprimand for an unrelated offence (e.g. criminal damage) and a final warning (e.g. for shoplifting) could find that a third offence (e.g. cannabis possession) would result in criminal proceedings.

In practice many police forces are not rigorously enforcing this aspect of cannabis policy and so young people aged 16 and 17 (and sometimes younger) are getting cannabis warnings.

Will people over 18 get arrested for possessing cannabis?

It depends. The law gives the police the POWER of arrest but they are not OBLIGED to do so. The ACPO guidance says that officers should assess the “necessity of arrest.”

Generally, the guidance says that arrest will not be required, but outlines situations where officers may need to arrest. These include:

- The name and/or address of the suspect are not known or there are reasonable grounds for doubting whether a name given is a real name.
- It is necessary to prevent the offender suffering physical injury or causing injury to someone else, or a person is smoking cannabis in the company or vicinity of other people and arrest is necessary to reduce the harm or risks faced by any individual if intervention is not taken, or a locality has been identified through the National Intelligence Model as one where there is fear of public disorder associated with the use of cannabis which cannot be effectively dealt with by other means, such as where an open drugs (cannabis) market causes harm to communities.
- It is necessary to protect a child or vulnerable person from the offender
e.g. use is taking place near young people
- It is necessary to allow the prompt and effective investigation of the offence.
e.g. there is a more serious offence like supply, or the person has had more than two previous cannabis warnings

The bottom line is as follows: **possession of cannabis is an arrestable offence. The police ALWAYS have the power to arrest people for cannabis possession. You DO NOT have a right not to be arrested.**

Is it true that you are allowed to have a small amount of cannabis for personal possession?

No, this is an urban myth, as is the idea that you are allowed to grow a plant or two for personal use. Even the smallest amount of cannabis is illegal and can result in police action.

There is no “smallest amount” that you can legally possess.

How much can I have on me before it is classed as supply?

There is no fixed amount. The Government was going to create “threshold quantities” above which you would be assumed to be intending to supply. But they abandoned this approach.

What is classed as “supply”?

Depending what you say or do, even the smallest amount of cannabis could be considered supply. The definition of supply is not based just on quantity, but also on intention and action. So passing a spliff can count as supply, and even supplying a small quantity can count as supply. The maximum penalty for supply of cannabis is fourteen years.

When does “possession” become “possession with intent to supply”?

There are a number of factors that need to be considered and there are few hard and fast rules. When considering if a case is “possession” or “intent to supply” factors that will need to be taken in to account include:

What the person says:

If the person says “it’s not mine – it’s my mates. I’m looking after it for them,” then the person has demonstrated that their intention was to supply the drug. This is probably the worst thing that you could say.

The quantity of drugs involved

There isn’t a set quantity at which possession becomes intent to supply. But there comes a point where the police (and a court) will cease to believe that it is all your own drug for your own possession. If a person is in possession of a very large quantity of cannabis, it would become increasingly difficult to satisfy the court that you intended to use it all yourself within a feasible time-frame.

The form that the drugs are in

Being found in possession of small quantities of drugs, individually wrapped and packaged is more likely to suggest supply than having the same quantity in one large lump or bag. It may be that a person wanted to buy a half ounce of cannabis, but could only get this in four separate 1/8th Oz portions. The prosecution would be likely to argue that this packaging suggested intent to supply.

Other items and paraphernalia found

The presence of scales, knives for chopping resin, bags for packaging, sums of money etc may be used as evidence to support the charge of intent to supply.

The person’s actions:

Bear in mind that even the action of passing a spliff can, in the eyes of the law, be considered supply.

People who use cannabis should bear in mind that the maximum penalty for supply or intent to supply is 14 years and that this is an arrestable offence. If people are intent on using cannabis, they should avoid carrying large quantities on them, and should be careful of what they say when being interviewed by the police. It will usually be a good idea to have legal representation when being interviewed.

What about my pipes, bongs and grinder – are they legal?

Yes, the possession of cannabis-related paraphernalia is legal. However, if your equipment or tins contains traces of cannabis, there is a chance that this could be used as grounds for prosecution. This is unlikely, but it does happen.

Shops that sell such paraphernalia would be committing an offence if they supplied such equipment knowing it was going to be used for preparing or taking cannabis. However, as such shops remain convinced that the equipment is being used for novelty or amusement purposes only, they remain (barely) on the right side of the law. Again, although rare, prosecutions of such shops do happen from time to time.

Will all police forces work in the same way?

Not necessarily.

It is important to stress that this is guidance only. Different regional forces may develop their own approaches, and individual officers may interpret the guidance differently. None of this applies in Scotland at present.

Can I still be stopped and searched for if police suspect that I have cannabis on me?

Yes, you can.

How should a person react if stopped and is found to be possession of cannabis:

- try to remain calm and polite
- remember, you do not have a legal right to possess cannabis; depending on how you act you may walk away without any cannabis but without a criminal record.
- Don't try and argue that the police can't arrest you – they can
- Don't say that the drug is not yours and it belongs to someone else – this could be considered intent to supply
- If you are happy to do so, acknowledge that the drug is cannabis, it is yours for personal consumption and agree to surrender it;
- You will be asked for your name and address; if you refuse to provide this (or the police think it may be a false address) or attempt to leave, the police may choose to arrest.
- You should then, for a first offence, be given a “cannabis warning.”

How about people who use cannabis for medical reasons?

They are not exempted from the legislation. At some point, some cannabis-derived medicines will enter the market and these will occupy a different schedule to cannabis and cannabis resin. Possession of these on prescription will be legal. Possession of other forms of cannabis will not be.

How does this affect premises?

As the law stands, it is an offence to allow the use of cannabis on premises that you occupy or manage. This means that if you allow use to take place in your home, workplace, or a leisure venue, you could be prosecuted. Worse still, unless premises legislation is revised, allowing premises to be used for smoking cannabis will remain an

arrestable offence and will carry a larger sentence than actually possessing cannabis itself. Organisations and individuals will still be obliged to prevent cannabis use and supply in premises that they occupy and manage.

I'm experiencing short-term memory loss; what were the main points again?

- Cannabis has moved from class C to Class B. It remains an illegal controlled drug.
- The penalty for possession has gone up to a maximum of five years
- The penalty for supply has stayed the same, at a maximum of 14 years
- The police always have the power to arrest
- Police have been advised that generally, people found in possession not be arrested, but the drug should be confiscated and the person given a warning for a first offence
- Second offences could result in a Penalty Notice for Disorder being issued.
- Under 18s may not be arrested, but they will not get a Cannabis Warning and will be handled under the Crime and Disorder legislation.
- Allowing premises to be used for supply or smoking of cannabis remains a serious offence.
- The only source of cannabis will remain in the hands of illegal suppliers and this means that the hoped for separation of cannabis and other controlled drugs will not happen.

Further Reading and Source Information

KFx Website:

<http://www.ixion.demon.co.uk>

GW Pharmaceuticals: research and development of cannabis-based medicines

<http://www.gwpharm.com/>

ACPO Guidance: Association of Chief Police Officers guidance on cannabis

<http://www.acpo.police.uk/asp/policies/Data/ACPO%20Cannabis%20Guidelines.doc>

Home Office on Drugs:

<http://www.drugs.gov.uk/drugs/>

Talk to Frank: replacement for the National Drugs Helpline.

<http://www.talktofrank.com/>

UKCIA: Cannabis information, lobbying and activists

<http://www.ukcia.org/>

Erowid Cannabis: colossal resource database

<http://www.erowid.org/plants/cannabis/cannabis.shtml>

British Lung Foundation: published research on cannabis and lung health

http://www.britishlungfoundation.org/res_papers.asp?action=listall&cid=2

Urban 75: Information and Discussion Boards: lots of constructive drugs discussion and debate

<http://www.urban75.com/>

Cannabis Self help Website: information about cannabis and tools for monitoring and controlling personal use. <http://www.cannabishelp.org.uk/>

Independent Drugs Monitoring Unit (IDMU): valuations and expert witnessing; law

<http://www.idmu.co.uk/>



Appendices: Tools for Cannabis Education and Management

This section includes a number of tools and resources for working with cannabis users or for your own use. They include self assessment tools, educational resources and tools to assist with self management.

They are all available for free use and can be copied for use in any therapeutic and educational setting. The resources can be used unaltered and credit notices must not be removed.



Red Eye!

1) Which of the following statements is correct:

- a. Skunk is a form of cannabis with artificial additives
- b. Skunk is a strong form of herbal cannabis
- c. Skunk is cannabis grown hydroponically

2) Which of the following statements is correct:

- a. Cannabis makes the pupils dilate and slows heart rate
- b. Cannabis decreases appetite and slows breathing
- c. Cannabis increases appetite and reddens the eyes

3) The law about cannabis says:

- a. It is legal to possess it but illegal to supply it
- b. It is legal to possess it and for doctors to supply it
- c. It is illegal to possess and supply it

4) Which of the following is the odd one out and why?

- a. Sensimellia
- b. Skunk
- c. Soap-bar

5) Which of these statements is true?

- a. Smoking cannabis is less damaging but slower
- b. Eating cannabis is quicker but harder to manage
- c. Smoking cannabis is quicker but more damaging

6) Cannabis contains:

- a. THC and CBD
- b. THC and Anandamide
- c. THC and Nicotine

7) The proportion of young people (under 25) who say that they have ever tried cannabis is

- a. Around 25%
- b. Around 50%
- c. Around 75%

8) Which of the following are not controlled drugs (i.e. covered under the Misuse Of Drugs Act 1971).

- a. Cannabis Seeds
- b. Cannabis resins
- c. Cannabis plants

9) Which of these statements is correct

- a. Smoking spliffs is good for asthma
- b. Smoking spliffs is less hazardous than smoking cigarettes
- c. Smoking spliffs is more hazardous than smoking cigarettes

10) Which of the following statements is incorrect?

- a. Queen Victoria smoked spliffs
- b. Victorians used cannabis as a medicine
- c. Cannabis can help relieve pain

11) Which of the following statements do you think is accurate

- a. Cannabis causes dopamine levels in the brain to go down in the short term
- b. Cannabis releases serotonin in the brain in the short term
- c. Cannabis causes dopamine levels in the brain to go up in the short term

12) Which of the following statements is accurate:

- a. Cannabis is legal in the Netherlands
- b. You can legally possess cannabis in coffee shops only
- c. Cannabis is illegal in the Netherlands

13) Which of the following is the most accurate:

- a. Soap is better quality than weed
- b. Soap tends to be very pure and strong
- c. Soap tends to be highly impure

14) THC is

- a. A naturally occurring chemical in cannabis
- b. A synthetic chemical added to cannabis
- c. A chemical released in the brain when you smoke cannabis

15) Which of the following is true?

- a. The law obliges me to confiscate cannabis from young people
- b. I am obliged to stop young people smoking cannabis in buildings where I work
- c. Possessing pipes or bongs is illegal.

16) Cannabis is a:

- a. Class B drug, except for Oil, which is Class A
- b. Class B drug, except for Skunk which is Class A
- c. Class B drug

17) Skunk in the UK is on average

- a. 2 to 4 times stronger than herbal cannabis twenty years ago
- b. 5 to 10 times stronger than herbal cannabis twenty years ago
- c. 10 to 20 times stronger than herbal cannabis twenty years ago

18) From a mental health point of view:

- a. high THC with a little bit of CBN is safer
- b. high THC with very little CBD is safer
- c. moderate THC with moderate CBD is safer

Cannabis Dependency Questionnaire

Concerned that your cannabis use is getting out of control? Use this self-assessment tool to find out if you may be dependent on cannabis. Answer the following questions as honestly as possible:

Group 1: Over the past six months, are any of the following true:

- | | | | |
|--|-----|-----|----|
| (a) I smoke cannabis more times per day than I used to | yes | no | |
| (b) I smoke cannabis more times per week than I used to | | yes | no |
| (c) I smoke cannabis for longer each time than I used to | | yes | no |
| (d) I put more cannabis in my pipe/spliff each time | | yes | no |
| (e) I look for stronger cannabis if I can find it | yes | | no |

Group 2: If you stop using cannabis you experience any of the following:

- | | | | |
|--|-----|-----|----|
| (a) I find myself feeling anxious or stressed | | yes | no |
| (b) I find it harder to relax or sit still | | yes | no |
| (c) I find myself getting more wound up more quickly | yes | | no |
| (d) I find it hard to get to sleep when I haven't been smoking/using | | yes | no |

Group 3: I carry on using cannabis but I think:

- | | | | |
|--|-----|-----|----|
| (a) it is having a bad impact on my mental well-being | yes | | no |
| (b) it is affecting my performance at work/school/college/university | yes | | no |
| (c) it is having a negative impact on family/friends/partner | | yes | no |
| (d) it is costing me more than I can afford | | yes | no |
| (e) it is affecting my lungs badly | yes | | no |
| (f) my memory is not as good as it was | yes | | no |
| (g) it is having other negative effects on me | | yes | no |

Group 4: In the past year I have made any of the following choices:

- | | | | |
|--|-----|-----|----|
| (a) spending money on cannabis instead of buying food, or paying bills | yes | | no |
| (b) borrowed or stolen to pay for cannabis | | yes | no |
| (c) not done something I was meant to do or planned to do because I was too stoned | yes | | no |

Group 5: Are any of the following statements true for you:

- | | | | |
|---|-----|-----|----|
| (a) I think about cannabis several times a day | yes | | no |
| (b) I plan ahead when I am going to be able to use | | yes | no |
| (c) I have tried to cut down on my use but often break my own rules | yes | | no |
| (d) I would travel around to get cannabis if my usual dealer didn't have any | yes | | no |
| (e) I start to get anxious when I am running out of cannabis | yes | | no |
| (f) I have told other people I have cut down and stopped using but this wasn't true. | | yes | no |
| (g) I get very defensive when people start to challenge my cannabis use. | yes | | no |
| (h) I started answering these questions because somewhere deep inside I am worried that I may be using too much cannabis. | yes | | no |

Now see what you scored

Group 1:

(a) 2 (b) 1 (c) 1 (d) 2 (e) 2

Total for Group 1: _____

Group 2:

(a) 2 (b) 2 (c) 2 (d) 2

Total for Group 2: _____

Group 3:

(a) 3 (b) 3 (c) 2 (d) 1 (e) 3 (f) 2 (g) 1

Total for Group 3: _____

Group 4:

(a) 2 (b) 3 (c) 1

Total for Group 4: _____

Group 5:

(a) 2 (b) 2 (c) 3 (d) 2 (e) 3 (f) 2 (g) 2

Total for Group 5: _____

Total score:

Understanding the results:

If you have scored two or more in more than three groups then this suggests that you may be having a problem with your cannabis use, and there may be a level of cannabis dependency.

The higher the score in each group, and the more groups you have a score in, the more it suggests that you have significant level of dependency.

Group 1: A high score in this group suggests that you have become more tolerant to the effects of cannabis and that your use is escalating. It may be that you increasingly find cannabis unrewarding, or perhaps you have less alternative activities and cannabis is taking up more of your time.

Group 2: A score in this box suggests that you struggle a bit to cope without cannabis and that you experience some withdrawal symptoms when you stop. When you decide it's time to quit cannabis, you might need to find ways of coping with these negative symptoms if you are going to be able to stop successfully.

Group 3: The higher the score here, the greater the negative impact cannabis is having on you. A score of more than 10? Cannabis seems to be having a negative impact on most aspects of your well-being – your physical and mental health, your social and financial wellbeing and your education or employment. The fact that you can see it's having a negative impact but carry on doing it strongly suggests a level of dependency.

Group 4: A score here suggests cannabis is becoming your priority, even at the expense of other important aspects of your life. You don't feel able to be without it, even if you can't afford it.

Group 5: The higher the score here, the more it suggests that you are preoccupied about cannabis. If you answered "yes" to question 5(c) it suggests that you are trying to control your use by setting yourself some rules and goals – but you are struggling to stick to them. It may also suggest that other people are worried about your use, and perhaps you are too.

Cannabis Diary Sheet

Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:
Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:
Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:
Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:
Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:
Date	What I smoked: <i>(form of cannabis)</i> How much I smoked: <i>(number of spliffs/pipes etc)</i> <i>Estimate weight</i> How long I smoked for: Who with: Where:	What else was I doing: <i>(activities)</i> How I felt before: How I felt after:

Weighing Up Cannabis Use

What do I like about using cannabis?

What do I dislike about my cannabis use?

What would I gain by stopping my cannabis use?

What would I miss or lose by stopping my cannabis use?

Assessing My Cannabis Dependency

Answer the following questions as honestly as possible. If the answers are not currently relevant to you, or you don't know the answer, leave them blank.

If you find, later on, that you discover answers to these questions, go back and fill them in.

Field 1:

yes no no answer

- a) I use cannabis to help me cope with physical pain or other physical symptoms
- b) When I stop using cannabis I experience aches, pains or other physical symptoms
- c) I would consider my physical pain: mild/moderate/severe/extreme (*mark as appropriate*)

Field 2:

- a) most of my friends use cannabis
- b) my partner smokes cannabis
- c) other family members smoke cannabis
- d) cannabis is a feature of many of my social activities
- e) I would find it difficult to tell my friends I was going to stop smoking cannabis
- f) I don't have any close friends who don't use cannabis
- g) I use cannabis when I am out socially
- h) I would feel out of place being with my friends if I wasn't using cannabis
- i) I feel quite socially isolated – cannabis is one of my best friends
- j) I find it easier to be sociable when I have used cannabis

Field 3:

- a) I tend to use cannabis at regularly times of the day
- b) I tend to use cannabis at regular points in the week
- c) I find the process of preparing a spliff or a pipe very enjoyable
- d) If I'm at home I tend to use in the same rooms, sit in the same places or do the same things
- e) I have strong likes and dislikes in terms of the papers, pipes or bongs I use
- f) I think about having spliffs at various points in the day
- g) If I am going to be away from home I think about how I would fit in using cannabis
- h) If I miss one of my regular spliffs I feel put out

Field 4:

- a) I think my cannabis use helps me relax and chill out
- b) I tend to get stressed when I haven't had a smoke
- c) I have a problem with anger; cannabis helps me
- d) I don't feel down or low when I have had a spliff
- e) I have trouble sleeping if I haven't had a spliff
- f) If I smell cannabis around me it makes me think strongly of having a spliff
- g) I have bad thoughts or memories if I haven't had a smoke for a while
- h) My head really does me in if I haven't had a smoke – I get scared and panicky

Now use this information to complete the exercise overleaf...

Assessing My Cannabis Dependency Interpreting the Results

1: Using your answers from the previous exercise, add up your score in each field

Total

Field 1: (a) 1 (b) 1 (c) moderate 1; severe 2; extreme 3

Field 2: Half a point for each question you answered “yes” to

Field 3: Score one point for questions (a) and (h) and half a point for the rest

Field 4: Score one point for questions (g) and (h) and half a point for the rest

2: **Transfer your scores onto the chart below:** Field 1 represents your score in the Physical field; Field 2 goes in the Social field; Field 3 goes in the Ritual field; Field 4 goes in the Psychological field.

3: Interpreting the results:

Physical Field:

A score of less than two in the physical field suggests that you will not experience any significant physical discomfort when you stop using cannabis. As score of two or more means you may experience some physical distress. The higher this score is, the more likely that the underlying causes of your physical pain, or a professional assessment of your pain management will be needed to help you stop using cannabis.

Social Field:

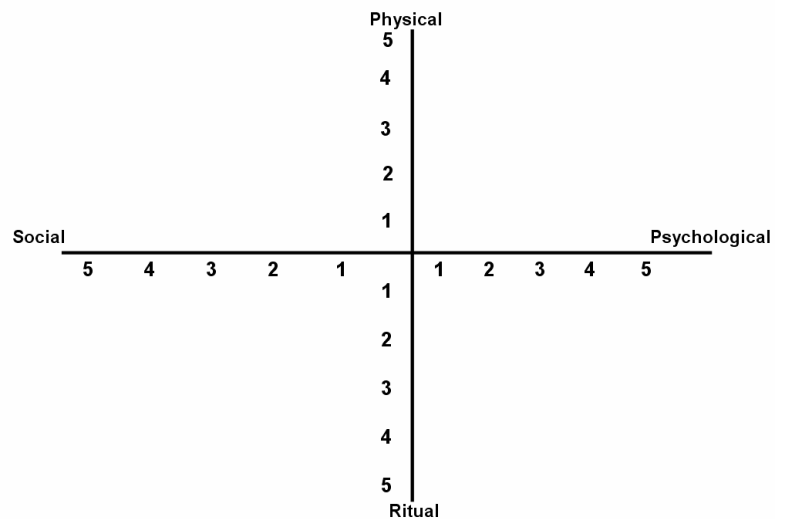
A score of two or more here suggests that cannabis is socially important to you. Your plan for stopping cannabis use will need to take on board how you will cope with family and/or friends who use, and how you will cope socially without cannabis.

Ritual Field:

The higher the score here, the more strongly you have developed a pattern of cannabis use with rituals and habits. These patterns will need to be spotted and changed. You can use your cannabis diary to help understand your patterns. Then change your daily routines and make sure you are occupied during times you associate with cannabis use. If you have a score of three or more in this field it may be helpful to discuss this with a drugs counsellor who can help you change your patterns.

Psychological field:

You may need to develop alternative ways of coping with stress and anger, and find ways to get to sleep. If you have answered yes to (g) and (h) you may well benefit from professional help to explore underlying issues that may be distressing you. With a score of two or more here, seeking professional help from a drugs agency is likely to be useful.



Action Plan

I have decided to stop using cannabis because:

The things I like or find helpful about cannabis are:

My non-cannabis alternatives to these are:

In order to deal with the physical side of my use I will:

In order to deal with the ritual sides of my use I will:

In order to deal with the social sides of my use I will:

In order to deal with the psychological sides of my use I will:

I plan to reduce my use as follows:

Or

I plan to quit using cannabis on: