



Cannabis

Cannabis is a plant extract from a variety of Hemp (Cannabis Sativa) which has been cultivated for commercial and recreational uses. The plant was spread throughout the world because of its value as a constituent of rope making for sailing vessels but horticulturists have in recent years increased the potency of the plant through breeding techniques to maximise the amount of cannabis it produces. This means that the strength of cannabis has increased dramatically over the last 30 years and as the effects are dose related, this has caused an increased problem with the misuse of the drug.

How does it work?

The psychoactive component delta 9-tetrahydrocannabinol (THC) is found in female plants as a type of resin but it is also found in smaller quantities in the leaves. THC has an effect upon the mind as it attaches itself to specific receptors in the brain. The brain makes its own compound anandamide which is a neurotransmitter allowing communication between the nerve cells in the brain and it is found in the parts of the brain which are related to control of stimulus and reward. Cannabis interferes with the normal communication between the cells and due to its pleasurable properties, it can become addictive.

Most users smoke the dried flowers or alternatively the resin rolled into tobacco (referred to as "Joints"). About 50% of the THC is inhaled which causes rapid psychological effects within minutes. Cannabis is not water-soluble and cannot be injected. Purified cannabis forms resin known as Hashish. It can be combined with alcohol to produce a solution, but it is rarely used in this way at present except as an oil to make "joints" stronger when smoked.

Cannabis resin can be taken in food, such as baked in cakes, but it is only 30% absorbed and the onset of intoxication is delayed for some hours. It is fat-soluble so it accumulates in the fatty tissues of the body where it remains for a considerable time. The body takes about seven days to reduce the THC blood level by half. About a quarter of the breakdown products are excreted in the urine but about 15% is released into the gut where a percentage is subsequently reabsorbed delaying the elimination. Heavy users have the breakdown products detectable in the urine for many days or weeks after the last consumption. Urine tests are a sensitive and accurate way of determining whether someone has been in contact with cannabis over the previous week or two as it identifies some of the breakdown products in the urine but the test has little value in identifying how and when the cannabis was consumed.

Effects on the body

THC causes an increased pulse rate and dilation of the eye blood vessels. Cannabis users can have red eyes which can be a clear sign of recent use. A further effect can be an increase in appetite and many drug users have a craving for carbohydrate food during/after consumption of the drug. It causes muscular relaxation but also some un-coordination particularly in the perception of depth and timing of movement so that cannabis users are at risk of accidents whilst driving.

Effects on the mind

As with many organic substances, it has some positive effects that can be exploited but the real dangers with this drug come from its effect on the mind. In some people there is increased anxiety and panic, particularly in new users and so the psychological effects of THC are never predictable.

Heavy users of cannabis frequently describe that they need it to help them sleep but, in the earlier stages of use, it causes a degree of intoxication, with reduced anxiety, reduced alertness, a reduction in tension and an increased sociability. However, in the early stages of use, the users often are aware of their intoxication and they can attempt to normalise their behaviour. Communication skills appear to be enhanced, but are in fact reduced and there is a change in the perception of time so that it passes either quicker or slower and there can be changes in perception, particularly visually. As the effects continue, there is some sedation, which explains the desire to use cannabis to help sleep. In moderate doses, it causes a relatively mild degree of visual hallucinations and users generally accept that they are as a result of the cannabis, rather than reality, unlike some other drugs such as LSD.

Cannabis and Mental Illness

If used to excess, Cannabis can cause significant psychological and psychiatric disorders. These comprise of either paranoid delusions or a toxic confusional state characterised by irritability, anger and dysfunctional thinking. Evidence shows that people who use cannabis are 4 – 7 times at risk of developing schizophrenia in later years. Those patients, who already suffer with a psychotic disorder such as schizophrenia, have much greater difficulty in controlling the symptoms of their illness. They have a poor prognosis; have more admissions to hospital as well as the needing higher doses of medication to control their symptoms. Cannabis is therefore harmful for those people who suffer with mental illness such as schizophrenia.

Cannabis Dependence (Addiction)

Any drug, which causes changes to the mind, can cause a dependence syndrome. This means there are symptoms and behavioural patterns which form a recognised illness:

1. There is a strong desire or compulsion to use, which overrides other everyday activities; family, friends, work and hobbies are neglected. They neglect the alternative legal pleasures of life as the drug taking becomes the major focus for the individual.
2. A lot of drugs, which cause dependence, have a physical withdrawal state when discontinued. It is probable that cannabis only causes a minor withdrawal state.
3. There is a degree of tolerance requiring higher doses to have the same psychological effect. There are difficulties in controlling the amount of use, so consumption escalates.
4. The user persists in consuming the substance despite evidence of harm such as ill health, debts or psychological problems.

These key features of dependency are found with cannabis but the main problem is more psychological than physical. The people most at risk of cannabis dependency are those who have difficulty dealing with their emotions and who have trouble in facing everyday life. It is used as an “escape mechanism” for life’s problems rather than confronting them. There is an increased risk for those who are shy, with low self-esteem and have

problems with family/work. There are genetic risks for susceptibility to addiction. There is probably an increased risk of dependency if there are other addicts in the family. Cannabis dependency can be part of a spectrum of addiction so a person can be reliant on one drug for a period of time and then swap to another substance at another stage in life (cross addiction).

Development of dependence

There is a progression of use from non-user to dependency, which can stop at any stage and the speed of the process varies amongst individuals. New users start with experimentation, which can go on to recreational use often in a social or group setting. People, who only use cannabis occasionally or recreationally, rarely need psychological help. They have the free will to stop at any time if they perceive their drug taking is causing harm, unlike dependency where there is obvious harm but the compulsion to use, means continued and growing cannabis consumption.

Treatment of Dependence

With the absence of a significant withdrawal syndrome, most cannabis users, even when dependent, claim that they can stop using without help, but more often than not, this is untrue. Help can be gained informally from a friend, a drugs counsellor or therapist. For those with a severe dependence, there is a need to be admitted into a treatment centre in order to address the underlying personal issues which have promoted the dependency and to counteract the effects of the illness itself. Invariably once this stage of dependency is reached, the user will never be able to control cannabis use again and abstinence is the only way forward. A return to usage will cause a return to the original patterns of use and the vicious circle continues. In-patient treatment looks at all factors hidden behind the dependency, such as family relationship problems, previous psychological trauma or self-esteem issues. Some dependency is in conjunction with other psychiatric disorders such as depression (known as dual diagnosis). In-patient treatment will also enable the secondary effects of the dependency to be looked at. Often users do not recognise the harm that the substance is doing to themselves or others (denial) or the social isolation that it is causing. The illness is accompanied by guilt/shame so there is a reluctance to accept help. The therapeutic environment enables the return of previous attributes and the ability to ask for help when there is trouble so that they can view the future with confidence without returning to mind-altering substances. Family relationships, which are also damaged by the illness, can be repaired with the help of treatment.