

South Australian Cannabis

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Scanning through the hydroponic equipment and supplies section of the yellow pages can be very revealing. In Adelaide there are about 54 local outlets, which translates to about 49 per million population. Compare this with Sydney and Melbourne, where the numbers are 11 and 19 per million, respectively, and we have nearly twice as many per head of population in Adelaide as Sydney and Melbourne combined. That's quite a difference.

So either South Australians are very keen on hydroponic vegetables, or something else is cooking.

A plant that lends itself very nicely to hydroponic cultivation is *cannabis sativa*, otherwise known as marijuana, dope, weed, pot, ganja, hashish, mary jane, or grass. The hydroponic advantage is that plants can be grown indoors under lights in a spare room, shed, cellar or ceiling, quite secretively, and potentially produce 4 crops per year.

South Australia has the dubious distinction, along with the ACT, of having decriminalised the production of cannabis, making it possible for backyard hydroponic novices to grow their own, either for themselves, a few friends, or if they get organised, interstate markets. Decriminalisation in SA means that a grower of 3 plants or less (until recently 10 plants) faces just a \$150 fine if caught, much like a speeding ticket. The temptation for growers is to sell each crop for about \$20,000 and risk the fine. It's a curious state of affairs to say the least, and is mainly why marijuana is so easy to obtain here and also why SA helps supply the rest of the country.

The change to decriminalisation in SA in 1987 had a lot to do with the image of marijuana put forward at the time, that it was relatively harmless and prohibiting it was unjustified, even though the use of a mind-altering substance seemed to many people to be inherently risky business. As might be expected, after the change in the law the number of people using cannabis grew steadily. Now, despite the benign image, there is a growing uneasiness about its impact. Interestingly, there was already a considerable body of evidence pointing towards significant problems resulting from the use of marijuana. But more recently, studies are beginning to show that some of the more subtle longer term effects may be quite devastating. Like tobacco, where proof of the damage done came only after many decades of study, the damage from marijuana may take many decades of research to nail down.

So what do we know about the effects of cannabis on humans. A brief look at recent findings in neuroscience, that is the study of the brain, will help to put this in perspective.

In recent years, studies in neuroscience have revealed a complicated system by which natural cannabis-like substances in the brain regulate a variety of finely tuned processes. Signalling in the brain occurs by microscopic squirts of chemicals called neurotransmitters onto targeted receptors tailor-made to receive them. Most people have heard of natural endorphins in the human nervous system which are substances related to morphine, codeine and heroin that regulate all sorts of processes like pain control and respiration. Natural cannabis-like substances in the cannabinoid system

may be similar. What we know so far is that the emerging roles for this system include appetite and control of movement, as well as higher brain functions such as motivation, memory, attention and cognition. Knowing this, it then comes as no surprise that smoking marijuana interferes with this system by affecting each of these functions. That is why smokers will get the munchies, suffer from lack of motivation, have difficulty with attention, have memory lapses, and find difficulty controlling movement. Of course these are seen by users as by-products of the sought-after effect of euphoria or feeling high.

What harm then can cannabis do if it is only interacting temporarily with these systems? Well, to begin with, the short-term effect of being under the direct influence of marijuana means that a person is placed at risk of harming themselves because of the loss of movement control. There have been several studies implicating cannabis in motor accidents, and many others warning of the risks associated with poor control of movement. In the short term also, cannabis suspends the normal self-controls on behaviour, similar to being drunk with alcohol, and being stoned can lead to behaviour with lasting consequences that may be deeply regretted in the colder light of day.

Furthermore, the longer term use of cannabis can lead to a range of other problems, including the risk of various throat and neck cancers, possible effects on the reproductive and immune systems, behavioural changes like difficulty finding motivation, possible on-going damage to memory, difficulty focussing on tasks, and psychoses.

It is this last problem that has caught much attention lately, since it may be the most damaging in terms of mental health. Although the evidence is not clear at this point of time, there is sufficient research to show that cannabis can cause a short-term psychosis, may lead to the more rapid progression of schizophrenia in predisposed individuals and, most disturbingly, may induce schizophrenia in otherwise normal individuals.

To these can be added the fact that cannabis can lead to addiction. There are several studies looking at addiction, including a very recent animal study showing that monkeys will repetitively self-administer the active ingredient in marijuana just as they will for amphetamine, heroin, cocaine and nicotine. Addiction alone, even without all of the other harms, strips someone of their freedom to enjoy all that life has to offer.

It may take many years of research to be a 100% sure about all of these harms, but in the meantime, as they stand, they constitute very good reasons for not smoking cannabis. Add to that the fact that good reasons for indulging are non-existent, and smoking dope ends up being pretty hard to justify.

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