

DISCLAIMER

The information contained within this document does not constitute medical advice or diagnosis and is intended for education and information purposes only. It was current at the time of publication and every effort is made to keep the document up to date.

The information contained herein includes both psychological and non psychological interventions. The delivery of psychological services requires a medical referral whilst non psychological services do not.

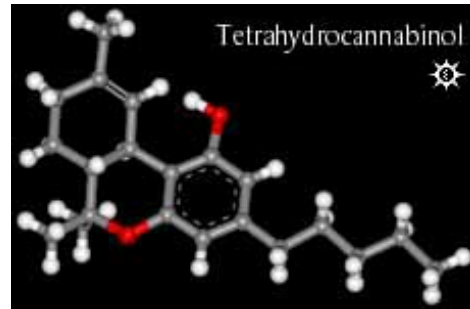
Each person is an individual and has a unique psychological profile, biochemistry, developmental and social history. As such, advice will not be given over the internet and recommendations and interventions within this website cannot be taken as a substitute for a thorough medical or allied health professional assessment or diagnosis.

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Research findings on the impact of Marijuana



Cannabis Sativa



Molecule of the active ingredient in Marijuana - Tetrahydrocannabinol

Article QUICK LINKS :

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[The Relationship Between Substance Abuse \(Primarily Marijuana\) And ADHD](#) / [Marijuana Anonymous](#)

WARNING TO READERS OF THIS ARTICLE

This article contains information which may upset readers who are either physically or psychologically addicted to marijuana, (with or without acknowledging that they are in fact dependant), as well as those who are pro marijuana legalisation. (Please see the link to [Marijuana Anonymous](#) at the end of the article)

"No matter what we'd like to believe, there is no such thing as a safe drug. All drugs are poisons and are toxic to some degree. Their anticipated effect is to interfere with or inhibit the body's natural responses or to mask or diminish the symptoms of illness." (John Archer, Bad Medicine, 1995. Simon & Schuster, East Roseville, NSW; ISBN 031805089).

The above statement is true for any drug, whether it be in the form of legally prescribed medications, over-the-counter medications or drugs found in nature.

There has been considerable debate about the medicinal use of marijuana (analgesic, anti inflammatory, hypnotic, sedative, cataleptic and hallucinogenic), it remains to be seen which of the active ingredients in marijuana has the potential to benefit mankind.

This article needs to be read in the context of an ADHD brain.

(See Attention Deficit Disorder (ADD) & Attention Deficit Hyperactivity Disorder (ADHD) article) One that is already dysfunctional to start with as evidenced by mounting QEEG, SPECT and functional MRI data.

INTRODUCTION

Contrary to popular belief, marijuana is not harmless and is in fact addictive. According to a study conducted by Dr. Kadden (1997) from the University of Connecticut Health Centre, marijuana addiction is both psychological and physiological. People often fail to notice the effects of cannabis addiction because it's consequences are not as acute or striking as with cocaine or alcohol. It is instead insidious- "it gets into your lifestyle and then you can't get it out" is how some have described it.

Many participants in the three-year study expressed feelings that they could not cope or even function adequately without marijuana, and that their addiction interfered with leading a normal life. Further, they felt that they needed treatment for their addiction.

The following is a brief summary of findings from similar research by pharmacist and neuropsychologist, John Anderson presented at a seminar to the Adult ADD support group in Sydney in 1997. John Anderson died in 2002 and was a strong advocate against the legalisation of marijuana in Australia for the following reasons:

1. Although THC is the active ingredient that causes the high, there are 61 other agents in marijuana (The Psychopharmacology of Herbal Medicine- Spinella 2001 MIT Press). These other constituents vary widely depending on climate, cultivar, soil etc. Since it is not a pure substance, individual reactions vary considerably.
2. CBD & CNN are two of the cannaboids found in marijuana (which according to Anderson) research has demonstrated affects chromosomal structure. In males, it results in spermatogenesis and in women, actively affects the shape of the ovum. The gene that is affected is the same gene implicated in ADHD - on the short arm of chromosome 6.
3. Marijuana alters testosterone levels and males who have ADD tend to have mood swings exacerbated by continued use.
4. Marijuana is fat soluble, and the brain and gonads are the major fatty tissues in the body.
5. Smoking one joint a day, three times a week, for six months, results in changes in brain physiology that can be detected three to five years later.
6. Since marijuana decreases the amount of T-cells in the blood, the immune system is weakened.
7. Marijuana contains 50-70% more carcinogens than tobacco and there is a higher incidence of jaw, throat and tongue cancer among marijuana users.
8. The cardio-vascular system is also adversely affected ' since marijuana deprives the brain of -oxygen. When the blood flow to the brain is decreased by 4% significant problems in terms of brain function result: in dementia patients blood flow is decreased by 4%, ADHD 8-12%, schizophrenia 12-15%, marijuana users 10-15%.

9. Long term users may develop drug induced psychosis (similar to schizophrenia with paranoia and delusions). One in ten of those with drug psychosis will commit suicide unless treated in the first two years (usually poly drug users). Other than those who develop drug induced psychosis and cancer, research demonstrates that all other effects are fully reversible with total abstinence.
10. The adult ADHD brain is primarily characterised by a dopamine and sometimes a serotonin dysfunction. If an ADD adult smokes marijuana, the dopamine receptors are filled with THC instead of dopamine. This exacerbates the problem as it causes an imbalance in other neurotransmitters. There is little point in using medication for ADHD if marijuana smoking continues as the medication becomes ineffective unless massive doses are taken. Increasingly, stronger drugs are required and the progression from marijuana to speed to heroin is likely.
11. 30-40% of substance abusers (marijuana, heroin, methadone) have ADD. There are 18,000 people on methadone. If those with ADD are treated more appropriately, then maybe they can eventually get off methadone, thus actively treating the illness, not the symptoms.
(Source: Anderson 1997)

Recent research by Dr Rachel Wilson, University of California at San Francisco, discovered that the main ingredient in cannabis - delta 9- trans-tetrahydrocannabinol- or THC- is very similar in shape to endocannabinoids (naturally occurring cannabinoids in the body), which are involved in many body and brain functions. Cannabinoid receptors are found liberally throughout the body and brain. This is why marijuana smokers report a diverse collection of sensations. Endocannabinoids play an important role in the hippocampus, a part of the brain involved in learning and memory. It is thought that these molecules help lay down new memories by strengthening connections between nerve cells. However, when the brain is flooded with cannabinoids through marijuana use, forgetfulness results. They also appear to tone down the production of certain neurotransmitters, acting like the brakes of a car when the system is racing too fast. Marijuana has also been implicated in the dopaminergic system and it is thought that through a complex chain of events, revs up the dopamine system. One study showed a complex interplay existed between cannabinoids and leptin, a hormone that produces satiety and is probably the reason why marijuana users get the "munchies". (The Brain in the News - Jan,31,2002. Vol. 9, No. 2)

A recent article in the New York Times (Jan 29, 2002) states that for 10-14 percent of the population, marijuana is highly addictive and that the withdrawal symptoms are very similar to what cigarette smokers experience when they quit. These include craving, decreased appetite, sleep difficulty, weight loss, aggression, irritability, restlessness and strange dreams. Could it be that those who have a genetic predisposition to marijuana addiction are the same population of individuals with undiagnosed and untreated ADHD? Is this a way for them to self medicate?

THE RELATIONSHIP BETWEEN SUBSTANCE ABUSE (PRIMARILY MARIJUANA) AND ADHD

1. 40% of children with ADHD are predisposed to developing substance abuse during adolescence / adulthood.
2. Of the ADHD population that are poly-substance users, 61% smoke marijuana.
3. Many of the behavioural changes in marijuana users are the same as those of ADHD, hence it is often difficult for clinicians to differentiate between ADHD and marijuana use.
4. Specific behavioural changes in cannabis users include:
 - Significant decrease in academic ability
 - Increased depression
 - Increased anxiety
 - Increased impulsivity
 - Respiratory infections increase significantly (colds, sniffles)
 - Short term memory problems increase (forgetfulness, difficulty learning new information)
 - Motivational syndrome (lack of interest / enthusiasm in things previously enjoyed)
 - Temporal distortions
 - Reaction time slows
 - Changes in appetite(Source: Anderson 1997)

For more information or to make an appointment please contact us on (02) 9637 9998 during business hours.

MARIJUANA ANONYMOUS

Marijuana Anonymous has kindly allowed web publication of the following for those who wish help to take control of their lives.

Twelve Questions To Determine Whether Marijuana Is A Problem In Your Life:

1. Has smoking pot stopped being fun?
2. Do you ever get high alone?
3. Is it hard for you to imagine life without marijuana?
4. Do you find that your friends are determined by your marijuana use?
5. Do you smoke marijuana to avoid dealing with your problems?
6. Do you smoke pot to cope with your feelings?
7. Does your marijuana use let you live in a privately defined world?
8. Have you ever failed to keep promises you made about cutting down or controlling your dope smoking?
9. Has your use of marijuana caused problems with memory, concentration or motivation?
10. When your stash is nearly empty do you feel anxious or worried about how to get more?
11. Do you plan your life around marijuana use?
12. Have friends or relatives ever complained that your pot use is damaging your relationship with them?

If you answered yes to one or more of these questions, you may have a problem with pot. Marijuana Anonymous might be able to help you.

Click here for the latest **Marijuana Anonymous Schedule:**
<http://marijuana-anonymous.com/meetings.html>

Help and Information Line : 0403 945 083