



## Thematic issue: Synthetic cannabinoids and marijuana

### EMCDDA: cannabis and synthetic cannabis market

Cannabis is the most-used drug across the European Union. More than **three million Europeans abuse this drug every day**. The Czech Republic measured the highest rates of abuse, with 42% of 15 and 16 year olds having tried the drug.

Across all of Europe, it's estimated that more than 15 million people 15 to 34 years of age have consumed this drug in the last year.

While cannabis has long been the market leader, the synthetic cannabis market has been growing rapidly in the last few years. Synthetic cannabinoids (cannabis-like) are not similar to cannabis in their chemistry, but rather in the way they interact with the body. **Synthetic cannabinoids can be extremely potent and may contain a variety of different ingredients. There is no predicting the effects when a person chooses one of these substances.**

Each year in Europe, there are more than a million seizures of drugs, with cannabis accounting for nearly three out of four seizures. Important to note is that seizures of herbal cannabis have more than tripled in Europe since 2001. Seizures of resin cannabis (hashish) remain high at more than 300,000 annually.

In addition, nearly every country has reported seizures of multi-kilogram quantities of synthetic cannabinoid agents, most of it being trafficked from Asia to Europe. About these synthetics, the new report, titled European Drug Report, Trends and developments, notes that:

*"Many of the products on sale contain mixtures of substances, and the lack of pharmacological and toxicological data means it is hard to speculate on long term health implications of use, but increasingly data shows that some of these substances cause problems requiring clinical interventions, and fatalities have been recorded."*

"Users choosing these new, unpredictable drugs are playing with fire," said Clark Carr, president of Narconon International.

**The primary countries reporting high levels of treatment for cannabis addiction are the UK, Germany, Spain, France, Italy and the Netherlands.**

"Our Narconon centers in Europe can, of course, help these people who have suffered damage due to abuse of these drugs, but when parents can prevent drug abuse by their children, then they can avoid the need for rehab," concluded Carr.

<http://www.emcdda.europa.eu>

### USA: Marijuana withdrawal added to *Diagnostic and Statistical Manual of Mental Disorders 5*

Cannabis-related disorders are a group of mental health conditions that stem from the use of THC-containing marijuana or hashish. The American Psychiatric Association (APA) classifies these conditions as specific examples of a more comprehensive category of problems called substance-related disorders. Cannabis withdrawal, one of the cannabis-related disorders listed in the 2013 edition of the APA's Diagnostic and Statistical Manual of Mental Disorders, is a newly defined condition.

*The new Diagnostic and Statistical Manual (designated by the American Psychiatric Association as DSM 5) contains definitions for four cannabis-related disorders: cannabis intoxication, cannabis use disorder, cannabis withdrawal and "other" cannabis-induced disorders. Cannabis use disorder replaces both cannabis abuse and cannabis dependence. Cannabis withdrawal was created for DSM 5 in recognition of the possible effects of suddenly stopping or heavily reducing habitual marijuana or hashish intake.*

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## Cannabis constituent has no effect on MS progression

The first large non-commercial clinical study to investigate whether the main active constituent of cannabis

(**tetrahydrocannabinol or THC**) is effective in slowing the course of progressive multiple sclerosis (MS), shows that there is no evidence to suggest this; although benefits were noted for those at the lower end of the disability scale. The study was published in The Lancet Neurology. The CUPID (Cannabinoid Use in Progressive Inflammatory brain Dis-

### ★ STUDY on THC

ase) study was carried out by researchers from Plymouth University Peninsula Schools of Medicine and Dentistry.

*The study was funded by the Medical Research Council (MRC), the Multiple Sclerosis Society and the Multiple Sclerosis Trust, and managed by the National Institute for Health Research (NIHR) on behalf of the MRC-NIHR partnership.*

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# Regular Cocaine, Cannabis use may trigger impulsive behaviour

New cocaine and cannabis research reveals that regular cannabis users have increased levels of impulsive behaviour. It had previously been argued that this increased impulsivity after cannabis administration was only experienced by occasional users, but that

## ★ NEW RESEARCH

regular users were no longer affected in this way. Published in the *British Journal of Pharmacology*, the results provide evidence for how drug use may trigger addictive behaviours.

In a study conducted in the Netherlands, 61 healthy regular cannabis and cocaine users took both drugs and a placebo in controlled conditions. They then took part in tests that challenged them to reflect before making an

action.

Both cannabis and cocaine increased impulsive responding, but in opposite ways. Under the influence of cannabis, subjects were slower, but made more errors. Cocaine administration caused the participants to react more quickly, but if participants had to control their impulses they made more errors. "This increased impulsivity after drug use could increase the likelihood of developing addiction," says Ms. van Wel.

Taken together, the results indicate that long-term users of cocaine and cannabis were more impulsive under the influence of the drugs than when they were given placebo. "These findings contrast with previous reports that had claimed that these effects after cannabis administration only occurred in occasional users and not in heavy users," says Ms. van Wel. Regular cannabis users

experienced impairments, but had about a 2-3 times reduction in the magnitude of the impairments in two of the tests compared with occasional cannabis users.

**One hallmark of drug addiction is a disturbed relationship between the frontal cortex where decisions are made and the limbic system that organises emotional responses and memory. These results indicate that cannabis could decrease the amount of control the frontal cortex exerts over behaviour, while cocaine could increase impulsive responding from the limbic system.**

"Both of these options would cause the decrease in impulse control we see in our study," says Ms. van Wel, who believes that future studies using imaging techniques could clarify this hypothesis.

SOURCE: *British Journal of Pharmacology*



## USA: Marijuana withdrawal added to *Diagnostic and Statistical Manual of Mental Disorders (DSM) 5*

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People affected by cannabis intoxication have typically smoked or ingested marijuana or hashish within roughly two hours of the onset of their symptoms. Specific symptoms that indicate the presence of intoxication include a significant spike in the normal heart rate, mouth dryness, appetite elevation and unusual fluid accumulation in the eyelids (a condition known as conjunctival injection). In addition to at least two of these cannabis-related alterations, all diagnosed individuals must experience substantial psychological or behavioral impairments as a result of marijuana or hashish use.

Under the criteria listed in DSM IV, people with significant problems related to their cannabis use who show no signs of physical/mental dependence could receive a diagnosis of cannabis abuse. Examples of problems that qualified as significant include a frequent inability to meet any essential duties or responsibilities, frequent participation in dangerous activities while under the influence of cannabis, and an insistence on continuing cannabis use despite its known harmful life impact.

### Cannabis Withdrawal

According to the guidelines established by the American Psychiatric Association, substance withdrawal qualifies as a mental health concern when it produces symptoms that significantly degrade partici-

pation in a functional routine or trigger troublesome states of mind.

**Prior to the publication of DSM 5, there was not enough scientific evidence to ascribe these types of effects to withdrawal from the use of marijuana or hashish. However, times have changed, and the APA now officially recognizes the fact that at least some of the people who withdraw from these substances meet the mental health criteria for substance withdrawal.**

### "Other" Cannabis-Induced Disorders

Cannabis is known for its ability to produce symptoms in some users that strongly resemble the symptoms of certain diagnosable mental conditions. DSM IV identified two such conditions: anxiety—which produces unreasonable worry, fear or dread—and psychosis, which classically involves the onset of either sensory hallucinations or fixed, irrational beliefs known as delusions.

DSM 5 still allows doctors to diagnose these conditions in cannabis users; however, it also acknowledges the fact the cannabis users can potentially develop other mental health problems directly related to their marijuana or hashish use.

SOURCE: <http://www.drugaddictiontreatment.com/types-of-addiction/marijuana-addiction/marijuana-withdrawal-added-to-dsm-5/>

# Cannabis constituent has no effect on MS progression

FROM PAGE 1

CUPID enrolled nearly 500 people with MS from 27 centers around the UK, and has taken eight years to complete.

People with progressive MS were randomized to receive either THC capsules or identical placebo capsules for three years, and were carefully followed to see how their MS changed over this period.

The two main outcomes of the trial were a disability scale administered by neurologists (the Expanded Disability Status Scale), and a patient report scale of the impact of MS on people with the condition (the Multiple Sclerosis Impact Scale 29).

Overall the study found no evidence to support an effect of THC on MS progression in either of the main outcomes. However, there was some evidence to suggest a beneficial effect in participants who were at the lower end of the disability scale at the time of enrollment but, as the benefit was only found in a small group of people rather than the whole population, further studies will be needed to assess the robustness of this finding.

One of the other findings of the trial was that MS in the study population as a whole progressed slowly, more slowly than expected. This makes it more challenging to find a treatment effect when the aim of the treatment is to slow progression.

Professor John Zajicek, Professor of Clinical Neuroscience at Plymouth University Peninsula Schools of Medicine and Dentistry, said:

"To put this study into context: **current treatments for MS are limited, either being targeted at the immune system in the early stages of the disease or aimed at easing specific symptoms such as muscle spasms, fatigue or bladder problems. Overall our research has not supported laboratory based findings and shown that, although there is a suggestion of benefit to those at the lower end of the disability scale when they joined CUPID, there is little evidence to suggest that THC has a long term impact on the slowing of progressive MS.**"

SOURCE: <http://www.redorbit.com/news/health/1112904623/cannabis-constituent-has-no-effect-on-ms-progression/>

## DRUG POLICY ALERT in Stockholm: seize the initiative by setting our own national agenda

International conference on cannabis (marijuana and hasch) research in Stockholm on November 20, 2013, drew vivid attention on the part of drug policy makers, experts in the field and civil society.

Maria Larsson, Swedish Minister for Children and elderly pointed out that glorifying cannabis is a growing international trend. She was supported by brain researcher Nora Volkow, who is a head of American NIDA (National Institute on Drug Abuse) and is involved in a number of profound substance abuse studies. When making a presentation in Stockholm, Mrs. Volkow underlined that marijuana is addictive and boosts dopamine system in the brain. Cannabis has a negative impact on our short memory, cognitive abilities, motivation and immune system. It also influences reproduction, appetite, motion, behavior and puts at risk our psychic health.

**Robert L. DuPont, former US Drug Czar, comments on the new situation and argues that the drug-free groups must get their own agenda in order to regain the initiative over drug policy. "We need to promote strong, new ideas to reduce drug use and to improve public health and safety", writes DuPont.**

The drug lobby is winning the battle for the future of our nation's drug policy. Backed by lavish funding, a credulous media and a strong political ground game in key states across the country, the drug lobby has rolled out an ever-growing number of state-based ballot initiatives related to marijuana: decriminalization, "medical" marijuana, and outright legalization.

In the process it has gained control of the U.S. drug policy narrative: the U.S. has waged a doomed "war on drugs", prohibition has failed, prisons are filled with those arrested for drug use, and removing the criminal justice system from drug policy is the path to a "tax and

regulate" solution to the drug problem. This view of drug policy has become an accepted truth for most Americans despite evidence that every element of it is false.

When the media presents our views of drug policy, it does so only to "balance" the dominant narrative of the drug lobby. To many Americans we look foolish and out of touch. As a result of its control of the U.S. drug policy narrative, the drug lobby has set *our* agenda. We are merely reactive, responding to the headlines and the legislation it creates. Justifying current drug policies puts us on the defensive. This is not a formula for success.

Yes, we must continue to combat the drug lobby's falsehoods and deceptions. But more importantly, we can seize the initiative by setting our own national agenda for drug policy.

**We need to promote strong, new ideas to reduce drug use and to improve public health and safety. The future belongs to those who can inspire smarter drug policies; it does not belong to those whose message is, "stay the course."**

It is instructive to recall our nation's drug policy history. In 1971, responding to the sudden drug epidemic, the first White House drug office "balanced" the government's drug policy which at the time focused on law enforcement. The objective of this new balanced drug policy was to reduce the demand for as well as the supply of drugs.

**To reduce demand, significant new funding was added for treatment, prevention and research. This balanced drug policy has enjoyed steady bipartisan support during the ensuing four decades. It remains the foundation for a revitalized drug policy and it is central to the continuation of America's global drug policy leadership.**

*Reported by Drugnews.nu*

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The more parents talk to their children about the problems related with use of synthetics, the better. It would be smart for parents to also mention the fact that **60,000 Europeans each year are entering drug rehab centers to get help for cannabis addictions, proving that this drug also creates severe problems for the abuser.**

*Clark Carr, president of Narconon International*





**MERRY CHRISTMAS  
AND HAPPY AND  
PROSPEROUS 2014!**

## UK government response to novel psychoactive substances criticized

Professor Neil McKeganey, BA, MSc, PhD, a sociologist by training who has carried out research in a wide range of topics related to drugs misuse, is of opinion that psychoactive Substances, the dry scientific terminology for what are more commonly known as "legal high" drugs, may represent the biggest threat to drug enforcement, drug treatment and drug prevention that the UK has faced for decades.

Over the last 50 years UK government drugs policy has concerned itself, for the most part, with heroin, cocaine, LSD, amphetamines, cannabis and, more recently, ecstasy. Now, with the production and distribution of legal highs at the rate of one a week, often from laboratories in China, that list is looking increasingly out of date and the government's response increasingly out of touch.

*The list of novel psychoactive substances currently being sold in the UK is as bewildering as it is vague in cloaking what the drugs themselves actually contain: Anhilation, Toxic Waste, High Beams, Lime Fantastic, Sectioned, Dr Death, Fanny Powder.*

In 2013 the United Nations Office on Drugs and Crime identified the UK as having the largest market in novel psychoactive substance use anywhere in Europe, with an estimated 670,000 young people having consumed a legal high.

**In the last five years there have been 154 deaths in England and Wales linked to legal highs, with the number of deaths leaping some 80 per cent from 29 in 2011 to 52 in 2012. In Scotland there were 12 deaths linked to the novel psychoactive substances in 2010, with that figure more than trebling to 47 in 2012.**

According to the 2012 Global Drug Survey, a quarter of those who had consumed the now banned legal high **mephedrone** reported feelings of agitation, one in ten reported feeling chest pains, just under half reported feeling depressed and a quarter reported having experienced memory loss.

Despite those worrying statistics the UK government recently announced that it had no intention of banning the headshops that are now sprouting up in high streets across the country selling legal highs. Instead the government favours a policy of imposing a temporary ban on specific legal highs where there is prima facie evidence of harm and a full ban where there is clear evidence of harm.

*Published abridged. By the courtesy of*

<http://www.scotsman.com/news/neil-mckeganey-legal-highs-a-low-point-1-3173391>

## Trading narcotic substances in Belarus - risky and expensive

Relative availability of synthetic cannabinoids, higher income and economic growth among Byelorussians led to broadening horizons for those who aimed at selling synthetic mixes in the 2000-ies.

*Anonymous polls indicate that up to 30% of teenagers had tried various narcotic substances in Belarus. At the same time, this Eastern European country has the lowest levels of drug use and least drug users in the region.*

Turnout of drugs in Belarus has always been a relatively "cold potato" compared to the EU member states. A severe punishment for drug related crimes – storage of any narcotic substance – implies for instance, up to 5 years of incarceration; trade and spread can result in up to 13 years of imprisonment.

As a matter of fact, among protective factors securing a reasonably drug free life for Byelorussian society are severe criminal punishment and fairly high prices.

*Around \$20 is the price of 1 gram of cannabis mix, compared to 1 gram of marijuana for \$10 in neighbouring Poland or Lithuania. As a result, barely 2% of inhabitants in industrial bigger cities use drugs on the regular basis.*

This dangerous trend expands mostly among young people, students up to 25 years old. Minsk region leads in substance abuse statistics with two thirds of the registered addicts under 30 years old.

*Source: narkotiki.ru.*



**ECAD** is Europe's leading organization promoting a drug free Europe and representing millions of European citizens.

ECAD member cities work to develop initiatives against drug abuse supporting the United Nations Conventions.

**Has your city joined ECAD?**

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