

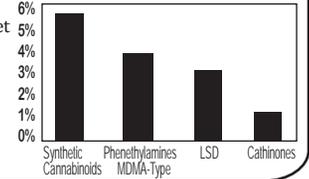
P Synthetic Phenethylamines



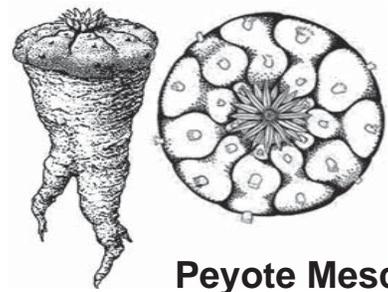
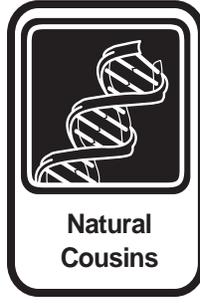
Resources

- Department of Justice and DEA, Special Report: Emerging 2C-Phenethylamines, Piperazines, and Tryptamines
- Office of National Drug Control Policy, Synthetic Drug Fact Sheet
- Uppers, Downers and Allarrounders, Inaba & Cohen
- Karch's Pathology of Drug Abuse
- Vaults of Erowid
- NIDA, Drug Facts, drugabuse.gov
- NSDUH 2006-2013, MTF 2014 HS Seniors
- United Nations World Drug Report, 2012

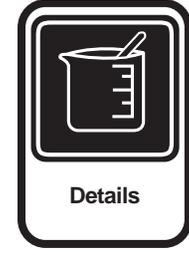
High School Seniors, Past Year Use, 2014



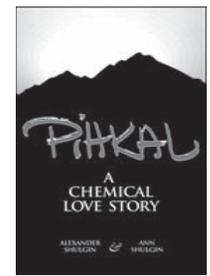
- methylenedioxy methylamphetamine (MDMA)
- methylenedioxyethyl amphetamine (MDEA)
- methylenedioxy amphetamine (MDA)
- paramethoxyamphetamine (PMA)
- dimethoxyphenethylamine (DMA)
- dimethoxymethylamphetamine (DOM)



Peyote Mescaline



Phenethylamines occur naturally in plants like Peoyote Mescaline (3,4,5-trimethoxyphenethylamine). Phenylethylamine is a naturally occurring neuro-modulator /neurotransmitter in the mammalian nervous system. Phenethylamine drugs are referred to as entactogens or empathogens because they elicit emotional expression.



They are often considered to be different than most other hallucinogens. Allegedly, whereas, most other hallucinogens disconnect people from reality, phenethylamines are emotional and social and tend to make people feel more emotionally connected to others. 2C phenethylamines have become increasingly popular due to mass publication of a book by Alexander Shulgin, PIHKAL (Phenethylamines I Have Known and Loved).



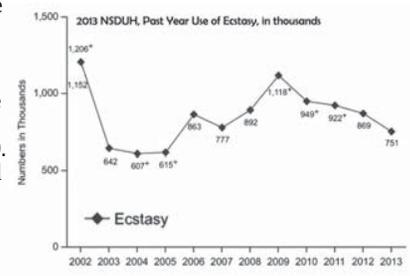
EMO Stimulating
Euphoric
Emotional
Visual & Tactile Hallucinations

The 2C's

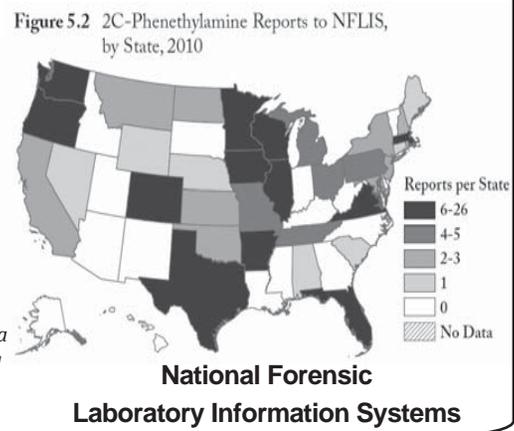
2C-B	2C-C	2C-I
2C-T-2	2C-T-7	2C-P
2C-H	2C-8	2C-9



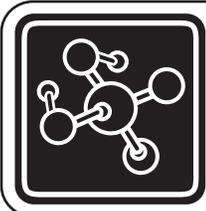
An estimated 580 reports of 2C-phenethylamines were submitted to State and local forensic laboratories in the United States from January 2006 through December 2010 and analyzed by March 31, 2011. During this five-year period, the number of 2C-phenethylamine reports increased from 28 in 2006 to 228 in 2010. During the first half of 2011, an estimated 102 reports of 2C-phenethylamines were submitted to State and local laboratories. In 2010, 2C-phenethylamines were identified in 32 States; 39% were identified as 2C-B, 33% as 2C-E, and 23% as 2C-I. Regionally, there were 44 reports of 2C-phenethylamines in the West, 70 reports in the Midwest, 32 reports in the Northeast, and 83 reports in the South.



U.S. ecstasy use peaked in 2001, then made a resurgence in 2009. 2C's are fast becoming more popular than MDMA.



National Forensic Laboratory Information Systems

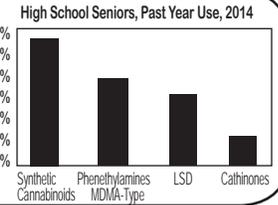


C Synthetic Cathinones



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Synthetic Cathinones

Methylenedioxypropylvalerone (MDPV "Bath Salts")

Methylmethcathinone (Mephedrone "Plant Food")

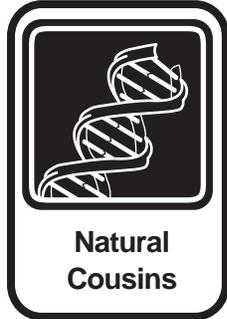
Methylenedioxymethcathinone (Methylone)

Fluoromethcathinone (Flephedrone)

Methoxymethcathinone



Plant Food (Mephedrone)



Natural Cousins

Man chewing Khat in Yemen



Common Effects

Intense Euphoria
Very Stimulating
Paranoid Type Hallucinations

Users describe the high as being similar to cocaine and methamphetamine.



Dangers Epidemiology

Paranoia and violent
Hallucinations
Delusions
Suicidal thoughts
Seizures
Panic attacks
Increased blood pressure
Increased heart rate
Chest pain
Nausea and vomiting

A 2010 Scottish study of synthetic cathinone users revealed that 17.5% of users met criteria for dependence.

"Bath-Salt"-Related Calls Reported to U.S. Poison Control Centers

Year	Number of Calls
2009	0
2010	302
2011	6,136
2012	2,655
2013	995

American Association of Poison Control Centers

Saint, knights and crystal meth; Mexico's bizarre cartel

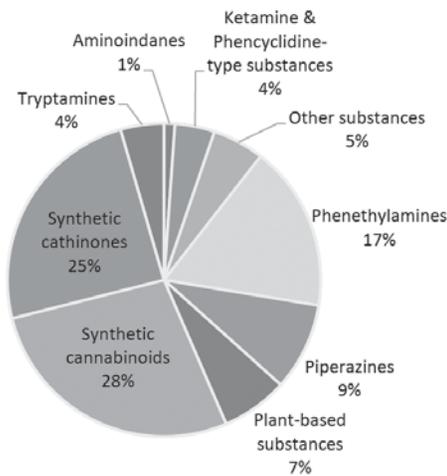
BY IOAN GRILLO



Synthetic cathinones

The synthetic cathinone most commonly reported to the UNODC is mephedrone (4-methylmethcathinone), which can be manufactured by a two-step process using 4-methylpropiofenone as one of the main precursors. This compound can be brominated and then reacted with another precursor, methylamine to give mephedrone. This synthetic route is flexible and a number of cathinone derivatives can be manufactured by slight modifications to the precursors. For example, changing the position and/or identity of the alkyl group in 4-methylpropiofenone can produce a number of known cathinone compounds; e.g 3-methylpropiofenone generates 3-methylmethcathinone and 4-ethylpropiofenone enables the manufacture of 4-ethylmethcathinone. In a similar manner, substituting methylamine with another amine such as ethylamine enables the manufacture of a series of ethcathinone derivatives.

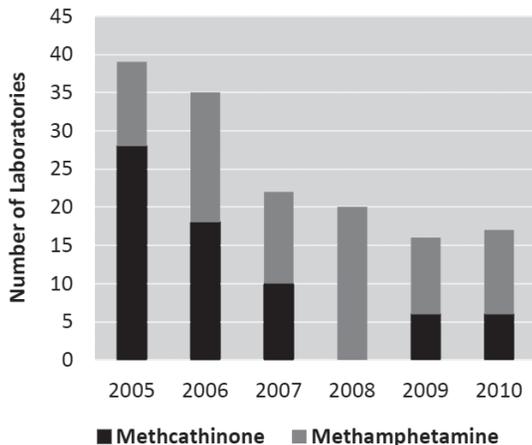
Total number of NPS reports to UNODC by countries worldwide, 2008 to 2013



BESTAR 常州百涛实业有限公司 Intermediates

Product name & CAS No.	Structure	Product name & CAS No.	Structure
4-Methyl propiofenone CAS No.5337-93-9	<chem>CC(=O)Cc1ccc(C)cc1</chem>	3'-Methoxy propiofenone CAS No.37951-49-8	<chem>CC(=O)Cc1ccc(OC)cc1</chem>

Reported laboratories dismantled in South Africa, 2005-2010

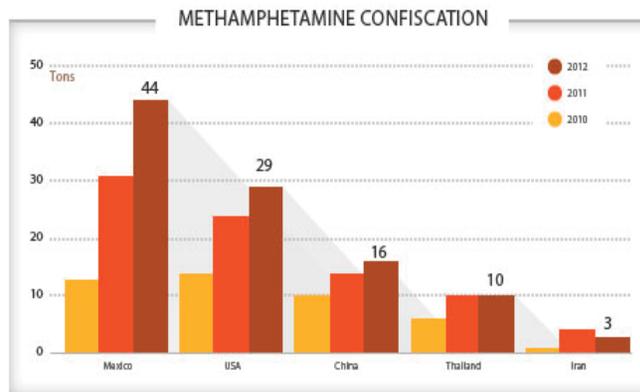


Mexico's Antidrug Push Weighs on Iron-Ore Trade With China

Mexico's Total Iron-Ore Exports Likely to Fall 80%



Mexican authorities on a ship where they confiscated iron ore extracted illegally by the Cartel. (EUROPEAN PHOTO AGENCY)



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Mumbai Police face 'epidemic' of party drug Meow Meow

By MAIL TODAY BUREAU
PUBLISHED: 20:47 EST, 31 December 2014 | UPDATED: 20:47 EST, 31 December 2014

This New Year's Eve, as the Mumbai Police crack down on the sale and consumption of drugs, they have a new problem - controlling the consumption of Mephedrone, or Meow Meow.

According to authorities, the new drug - Meow Meow - is swiftly gaining popularity, and is now an "epidemic" in the city.

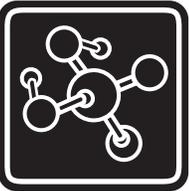
Moreover, the death of a Mumbai-based designer in Goa on Tuesday, allegedly due to a Mephedrone overdose, has opened a can of worms.

According to doctors, police and narcotics control experts, the consumption of Mephedrone has risen exponentially across Mumbai, Thane and Navi Mumbai. There is little the government can do to stop it, as its sale is not illegal.

The drug costs Rs 150 per gram (\$2.40 U.S.), which is much cheaper than cocaine, which costs at least Rs 3,000 per gram (\$47.50 U.S.). Unlike other drugs which are bought from peddlers and dealers, meow meow can be ordered online via Internet pharmacy websites (see box). Once payment is received, it is supplied at the customer's address. It is also sold in few grams as plant fertilisers, to avoid scrutiny from law enforcers. "Mephedrone users enjoy increased energy, self-confidence and talkativeness, euphoria, mental and physical stimulation, an enhanced sense of touch and empathy and a bit of sensory distortion. They also frequently enjoy a strong craving for more of the drug. It appears as a white or off-white powder, which is primarily either snorted or swallowed. It is usually mistaken for cocaine," explained Dr Merchant.



Source: UNODC Reports anual y otras fuentes oficiales



Synthetic Piperazines



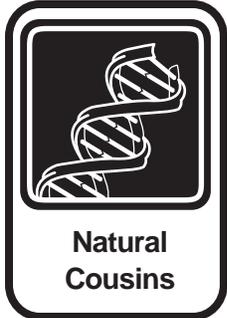
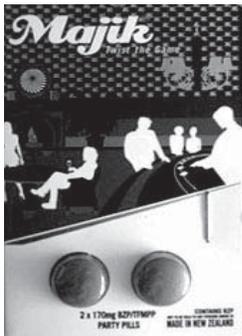
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- NIDA, Drug Facts, drugabuse.gov



Synthetic Piperazines

- Benzylmethylpiperazine (MBZP)
- MethylBenzylpiperazine (BZP)
- Dibenzylpiperazine(DBZP)
- Chlorophenylchloropropylpiperazine (mCPCPP)
- Chlorophenylpiperazine (mCPP)
- Chlorophenylpiperazine (pCPP)
- Fluorophenylpiperazine (pFPP)
- Methoxyphenylpiperazine (oMeOPP)
- Methoxyphenylpiperazine (oMeOPP)
- Methylphenylpiperazine (mMPP)
- Methylphenylpiperazine (pMPP)
- Trifluoromethylphenylpiperazine (TFMPP)



Natural Cousins



Users sometime claim piperazines are made from pepper, but they are not.

Synthetic piperazines really have no natural cousin.



Common Effects

- Euphoria
- Very Stimulating
- Mild Hallucinations
- Paranoid Hallucinations

Different types of piperazines have varied effects.

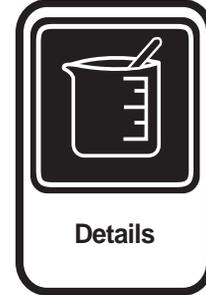


Dangers Epidemiology

Among drug-related fatalities reported in DAWN from 2006 to 2010, BZP was identified in four deaths. Two additional piperazines (mCPP, TFMPP) were each noted in four or fewer deaths. The negative effects of mCPP, often typical of a serotonin syndrome, include anxiety, dizziness, confusion, shivering, sensitivity to light and noise, fear of losing control, migraine and panic attacks.

Piperazine Poisoning

- | | | |
|--------------|------------|----------------|
| Agitation | Paranoia | Hallucinations |
| Diaphoresis | Vomiting | Abdominal pain |
| Palpitations | Chest pain | |



Details

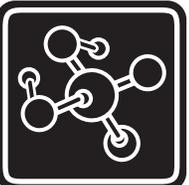
Piperazine drugs have no natural cousins. People often claim they are "natural" and derived from pepper. They are not. The name Piperazine was assigned because of its chemical similarity to piperine in the Piper genus of plants like pepper. Piperine and piperazine have vastly different effects in the human body. Piperazines were created in the 1950's, investigated as anti-parasitics, then later researched as anti-depressants in the 1970's.

They never made it to market because of extreme amphetamine like side effects. Piperazines, and 2C's are often referred to as "molly." Animal studies have demonstrated that BZP stimulates the release and inhibits the reuptake of dopamine and serotonin. Following oral administration of mCPP to healthy human male volunteers, the elimination half-life ranges from 2.6 to 6.1 hours with a wide variation in peak blood levels. According to Simpson's Forensic Medicine, piperazines are increasingly used as cocaine adulterants.

Figure 6.2 Piperazine Reports to NFLIS, by State, 2010



National Forensic Laboratory Information Systems



Synthetic tryptamines

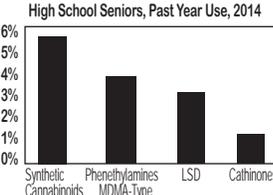


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High School Seniors, Past Year Use, 2014



Substance	Percentage
Synthetic Cannabinoids	~5.5%
Phenethylamines MDMA-Type	~4.0%
LSD	~3.0%
Cathinones	~1.5%



Synthetic Tryptamines

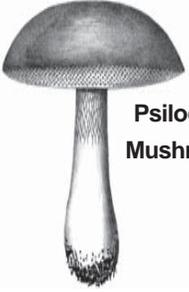
Dimethyltryptamine (DMT)
 Alphaethyltryptamine (AET)
 Alphamethyltryptamine (AMT)
 Diallyltryptamine (DALT)
 Diethyletryptamine (DIT)
 5-MeO-DIPY
 Hydroxydiethyltryptamine
 Hydroxydiisopropyltryptamine
 Methoxydiisopropyltryptamine
 DPT
 4-ACO-DMT
 5-MeO-DMT5-MeO-AMT
 5-MeO-DET
 4-MeO-MIPT
 5-MT
 5-MeO-DPT



FoxyMethoxy (5-MeO-DPT)



Natural Cousins



Psilocybin Mushrooms



Ayahuasca



Common Effects



Psychologically Stimulating, Pupil Dilation
 Muscle relaxation, Dissociation "out of body"
 Mild Euphoria
 Psychedelic Geometric Patterns
 Emotional introspection & abstract thoughts
 Synthetics have more diverse effects



Details

Mushrooms, Piptadenia Perigrina leaves, Ayahuasca, Chacruna, Ibogaine, and Yohimbine are all natural plants containing various forms of tryptamine. Tryptamines have an indole chemical ring structure. They are chemically similar to the natural amino acid Tryptophan (from which the name is derived) and other trace amines. Tryptophan and Tryptamines are psychoactive. Tryptamines have a strong affinity for serotonin receptors.

Research is ongoing. Tryptamines are thought to act on the 5-HT2A and TAAR1 receptors. Tryptamine containing plants have long been used in spiritual and religious ceremonies, especially in South America. In the 16th century, Christian missionaries from Spain and Portugal first encountered indigenous peoples using ayahuasca in South America. Hallucinogenic mushrooms were popular in mesoamerica, called "teonanacatl" by Aztecs.



Ancient Aztec Mushroom Statue



Dangers Epidemiology

Overdoses are characterized by nausea, vomiting, agitation, hypotension, mydriasis, catalepsy, tachycardia and hallucinations. While lethal overdoses on natural tryptamines are unheard of, cases of lethal overdoses on synthetic tryptamines do occur. Rhabdomyolysis and renal failure occurred in one young man and another one died 3-4 hours after an apparent rectal overdose. A 24 year old man also died of this compound being administered into the colon. Peranal suppository administration is a common route for individuals who are experiencing tolerance with enteral administration. According to the NSDUH, lifetime use of DMT, AMT, or 5-MeO-DIPT among persons aged 12 or older increased from 0.3% annually to 0.7% in 2013. Among persons aged 18 to 25, 2.3% were lifetime users in 2013, which was higher than the percentages in 2006 (0.9%).

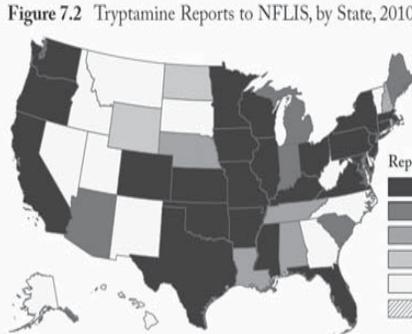


Figure 7.2 Tryptamine Reports to NFLIS, by State, 2010

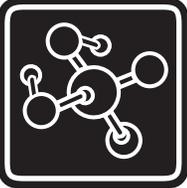
Reports per State

- 6-46
- 4-5
- 2-3
- 1
- 0
- No Data



National Forensic Laboratory Information Systems
 Tryptamines were popularized by R. Gordon Wasson in 1957. Sandoz marketed the first medical tryptamine "Indocymbin" for psychiatric use in the early 60's.

Eric Martin, MAC, CADC III, CRM, CPS, & Michael Razavi, MPH, CADC I, CRM, CPS



Illegal Synthetic Opiates



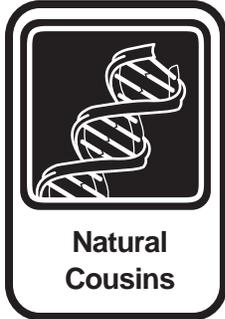
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- Krokodil (desomorphine)
- O-desmethyltramadol (Kratom)
- methylfentanyl
- MPPP
- para-flourofentanyl



Kratom containing O-desmethyltramadol tested by NIDA/DEA



Opium



- Typical opioid effects:
- analgesia
 - euphoria
 - drowsiness (the nods)
 - constricted pupils



Illicit Krokodil (desomorphine) is a semi-synthetic derivative of morphine with powerful, fast-acting opioid effects, such as sedation and analgesia. Desomorphine was first synthesized in 1932, used under the brand name Permonid and was described as having a fast onset and a short duration of action, with relatively little nausea or respiratory depression compared to equivalent doses of morphine.

Desomorphine (krokodil) is a Schedule 1 controlled substance, according to the FDA there are no legal medicinal uses for desomorphine in the U.S. It has maintained this status as a controlled substance in the United States since 1936.

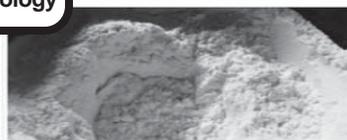


Krokodil Lab in Russia



The NFLIS has detected two seizures of desomorphine in the U.S. At this time it does not appear that Krokodil has widespread use in the U.S.

Tramadol has recently been placed as Schedule IV by the DEA. Illicit O-desmethyltramadol has been detected in packages of Kratom, according to NIDA and the DEA. Kratom is a natural opiate like plant from Thailand, containing mitragynine and 7-hydroxymitragynine.



Buy O-Desmethyltramadol 50g Online

Condition New
O-Desmethyltramadol (O-DT) or 3-(2-(1-Amino-1-methylpiperidin-4-yl)propanoic acid) is an opioid analgesic and the main active metabolite of tramadol.

Tweet Share Google+ Pinterest

This item has been sold

\$682.00

Quantity: 1

Add to cart



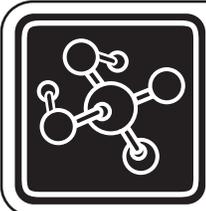
POSTED: OCTOBER 22, 2014

FDA Orders Seizure of Opioid-like Botanical

The botanical Kratom was marketed with drug claims; now it appears that the demand for the substance may be drug-like as well.

The recent seizure of a massive amount of kratom—which is claimed by online vendors to have opioid-like analgesic effects, as well as psychoactive properties—by U.S Marshalls paints a vivid picture of the growing danger it represents. The marshalls, acting under direction of the FDA, seized 500 cartons of kratom bottles, weighing 25,000 pounds and worth an estimated \$5 million, from Rosefield Management of Van Nuys, Calif. in September.





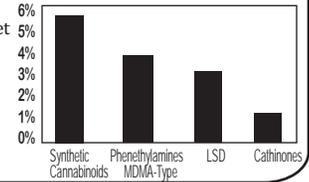
C Synthetic Cannabinoids



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High School Seniors, Past Year Use, 2014



Synthetic Cannabinoids

Some Examples:
 JWH-007, JWH-015,
 JWH-018, JWH-019,
 JWH-030, JWH-051,
 JWH-073, JWH-081,
 JWH-098, HU-211,
 HU-243, HU-308,
 HU-320, HU-331,
 HU-336



Natural Cousins



Common Effects

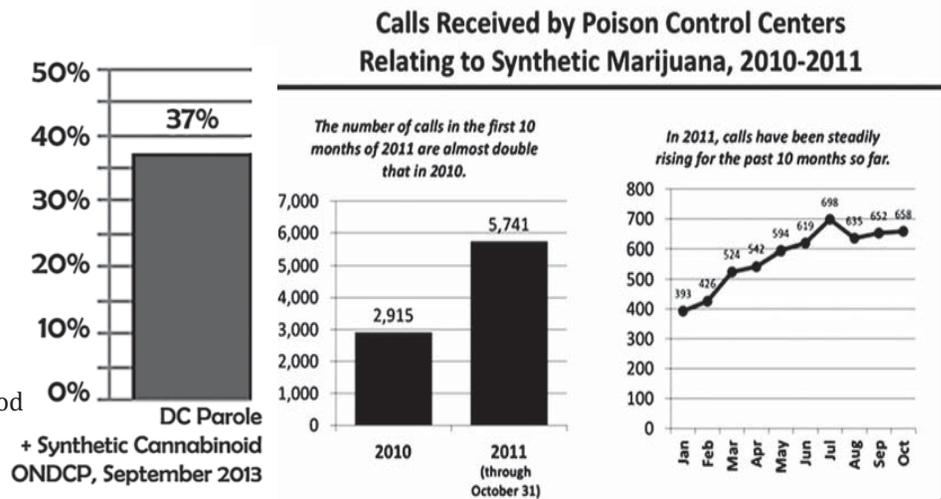
Euphoria
 Disorienting
 Initially stimulating then sedating
 Warm physical sensation, warm feeling in head
 Sometimes used by those with tolerance to THC



Dangers Epidemiology

Use of synthetic marijuana is alarmingly high. According to data from the 2011 Monitoring the Future survey of youth drug-use trends, 11.4 percent of 12th graders used Spice or K2 in the past year, making it the second most commonly used illicit drug among seniors.

The effects of synthetic marijuana include agitation, extreme nervousness, nausea, vomiting, tachycardia (fast, racing heartbeat), elevated blood pressure, tremors and seizures, hallucinations, and dilated pupils.



Eric Martin, MAC, CADC III, CRM, CPS, & Michael Razavi, MPH, CADC I, CRM, CPS