

# Designer Drugs And Their Different Aspects

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## Abstract

Nowadays people mainly abuse designer drugs, which are harmful to them. These drugs are prepared in clandestine laboratory and are sold in market. The person wilfully started taking these designer drugs due to any reason and then gets addicted to them, when they didn't get the desired dose withdrawal symptoms start to appear which include shakiness, vomiting, muscle pain and etc. During initial stages when a person started taking drug he/she feel happy joy full but later on they get addicted towards that drug and after sometime they increase the dose as depends on drug tolerance. People without knowing the harmful effects of the drug they started taking because they only know that they will get desired effect when they will take that drug. The drug abuser doesn't know how that drug will affect him/her in future. This paper will focus on various designer drugs, their effects and metabolism including their legal status.

Keywords: Designer drugs, Flakka, Salvia, Ice

## Introduction

Drug can be defined as non-food chemicals which alter body function physically or psychologically.

The psychoactive drugs act onto central nervous system and leads to changes in physical or mental condition of person who are taking them. The use of these drugs may bring changes in mood, some of them may induce sleep, and some drugs may bring alertness in individual. The legal use of the drug is that they are used for medical purposes, but some people use them for illegal purposes (drug misuse), such as for homicidal, suicidal, some use it for feeling good, people may use it to perform better in sports, peer pressure can be one of the reason for the illegal use of drug. The person who started taking drug on regular basis they get addicted towards that drug. The addiction is chronic disease which is difficult to control, if that person don't take that drug dose then the person gets withdrawal symptoms, which include sweating, shakiness, anxiety, muscle pain and many more. [1]

A number of new drugs are being added also known as "legal highs". Some of these new drugs are briefly discussed in this paper.

## **FLAKKA**

“Flakka” is derived from “la flaca”, mean skinny girl. Word originated from south Florida, Spain. Flakka is a designer drug. It is typically made from synthetic version of an amphetamine- like stimulant in the cathinone class called alpha-PVP (pyrrolidinopentinophenone). Earlier it was sold as bath salt but later on it was found it has worse effects than bath salts. [2]

### **Route of administration**

When flakka is heated up it gives foul- smelling smoke, which can be characterized as smell of dirty socks. The effect of drug can be seen by smoking it. Flakka can be caped through e-cigarette, it can be directly injected or crystals of flakka can be swallowed through mouth.

### **Effects**

Person who consumes flakka, they get sense of euphoria. The heart beat and body temperature of the person gets increases. one may have suicidal thoughts, he/she may behave aggressive, person may have seizures and agitation. Person may feel hallucinated.

Patients come in medical emergency state called “excited delirium”. Patients struggle to free themselves, scream as someone is chasing them.

Together hyperthermia and extreme muscle leads to metabolic problems and rhabdomyolysis occur (muscle tissue breaks and its protein and other cellular products are released into blood stream). The struggling causes dehydration. The rhabdomyolysis and dehydration disrupts the kidney function and forms renal failure and death occur [3].

### **Legal status of flakka**

When it is consumed it shows the effects of cocaine and meth. flakka comes under schedule 1 drugs and there is ban on it by DEA. It cannot be used for medical purposes.

### **Trends of abuse**

Flakka is sold illegally in the form of crystals of color white, pink, or blue. It is in the form of tablets, powder, and liquid state. The drugs are so cheap that anybody can buy it from street and the detection for these drugs by law enforcement if very difficult [4].

### **Methamphetamine (ice)**

It is stimulant; Alternate name for ice can be shard, crystal, glass, shard. This gives sense of excitement and alertness by releasing three chemicals to our brain i.e. dopamine, serotonin and nor-adrenaline [5]. Recrystallization of methamphetamine leads to formation of crystal meth or ICE.

### **Route of administration**

Generally for its immediate effects it is smoked, the drug can be directly injected into the body with the help of syringes. The ice can be swallowed by mouth or the drug can be snorted.

Dopamine, serotonin and noradrenaline the release of these chemicals is triggered by ice, which gives sense of alertness and excitement to person who is taking it. But when too much of these chemical is released into the brain it leads to overloading of chemicals and those person have symptoms of psychosis and they cant sleep for days.

Reabsorption of these chemical is stopped by ice which leads to low formation of chemicals and people become irritated and feel low.

Regular use destroys dopamine receptors in brain and person taking can't leave normal life

### **Effects**

Depends on the amount of ice consumed, usually the effects are shown within the fraction of time only. When drug get kick in, it brings more alertness to the person who is consuming it. Headache is also its one of the effect. Person who is consuming ice, his/her pupil's size increases and the vision of person gets blurred; the heart rate or heart beat of the individual increases. Person feel dehydrated, person show aggressive behavior. Once drug get kick in it bring feeling of pleasure and confidence to the person, it can bring risk of blood borne viruses.

Sometimes overdose of ice can lead to chest pain, fits, stroke, heart attack, or death [6].

### **Legal Status**

There is not any legal use of these drugs, as it leads to death. There is no medicinal use of these drugs [7].

### **Trends of abuse**

These drugs are mainly abused in parties, some people also use it for weight loss because the use leads to sudden loss in weight. The sense of euphoria is more as compared to cocaine and other drugs. People in depression may use to enhance their mood. Due to its libido and sexual pleasure one may use it [8].

### **Synthetic cathinones (bath salts)**

These are designer drugs which mimics the effect of cocaine and MDMA. Now the drug has been categorized as schedule 1 drug. These are distributed under the trade name of ivory wave, white lightning and vanilla sky, dove, super coke and on every drug it is labeled that, not for human consumption.

### **Source**

Majority of production of bath salt is in china and south East Asian countries. Bath salts are produced in powder form then converted into tablets or in pill form [9].

Main component in bath salts are alpha PVP (pyrrolidinopentiophenone), methylone and MDPV or MDPK (methylenedioxypropylvalerone). Bath salts are derived from cathinones these are the found in the khat plant [10]

### **Route of administration**

Bath salts can be in powder, pill or in tablet form. Powder form of bath salt is snorted or inhaled by the nose, but due to agitation in nose bath salt can be smoked with the help of pipes, the pill or tablet form of bath salt is swallowed by mouth or can be taken through rectal

also, or can also be injected directly into the body either in veins or in muscle. As its crystal forms is soluble in water it can be ingested by mixing in beverages also [11].

### **Effects**

Once person take its dose he get relaxed and enters into the state of euphoria. The stimulant effect of bath salts usually lasts for 2-3 hours. Once these drugs are taken by the person, the body temperatures rises and muscle spasm increase in blood pressure, panic attacks start to appear. Person losses his or her bowel control, he/she will show aggression and hallucinations occur. Overdose may lead to death of the person. The long term effect usually are insomnia, kidney failure may occur, muscle can get damaged person may get anxiety problems.

**Legal status**  
bath salts are placed in schedule 1 of control substances act. These drugs are illegal to use but the people who make it they sell it with different names, to prevent themselves from law [12].

### **Trend of abuse**

The abuse of these drugs can be social or economic depending on the person using them. Men who are employed or are in school they abuse bath salt. These drugs are abused in house party. Some people abuse it for gaining concentration, to bring sexual desire; some people abuse it to share feelings with other people [13].

## **SALVIA DIVINORUM**

### **Source**

Mainly these drugs were used for rituals purposes by mazatec Indians. Active constituent in this drug is salvinorine A and is only non-nitrogenous k- opioid receptor against. this drug is the member of mint family (lamiaceae) and the drug is originated from Mexico. the drug is mainly used for recreational purposes, and it is extracted from the leaves of the plant [14].

Streets names for salvia are sally-D, lady salvia, lady sally, purple sticky, the female and etc[15].

### **Route of administration**

The leaves of the plant are crushed mixed with juices and tea then they drinks. Some people chew the leaves and then swallow it. Oral consumptions of the leaves show late effect (10-20 min) but salvinorin gets inactive when it gets in contact with gastrointestinal system so people prefer quid chewing. The salvia can be smoked in pipes by heating salvia, the salvinorin is produced, some people also ingest salvia in tincture form.

### **Effects**

People mainly use this drug for recreational purposes, as this drug is less harmful than other drugs and it is considered less addictive. This drug shows effects like nausea, difficult in focusing, the coordination power decreases, the person who is taking this may get feeling of tiredness and memory of person may get loose. Things that are not present person will start dreaming of that.

### **Legal status**

The salvia till now has no medicinal use, but can be used in appropriate way by adults as this drug is not habit forming or addictive. Countries like Australia Belgium Denmark Italy japan new zeland spain, south korea Ukraine united states banned salvia whereas in countries or state like hungary, south Africa, netherland, Myanmar, Malaysia the salvia is legal.

### **Trend of abuse**

Salvia drugs are mainly used for recreational purposes, and the drug is less addictive but the LD50 time is more. Usually this drug is abused by younger people for its desired effect. This drugs is also used for rituals purposes by mazatec people [16].

## **3-4 Methylenedioxymethamphetamine (MDMA)**

### **Source**

Common name is ecstasy, other name are XTC, Pingers, bikkies, molly and etc. It is synthetic, psychoactive drug. This drug is prepared chemically with the help of four precursor; safrole, isosafrole, piperonal and 3-4- methylenedioxyphenyl-2-propanone (PMK).

### **Route of administration**

The pill form of the drug is ingested, but if the drug is in powder form then the drug can be snorted or inhaled through nose or it can be smoked through pipes or the drug can be injected into the body with the help of syringes [17].

The brain activity is increased when MDMA is taken in body; dopamine (it is neurotransmitter which sends messages between nerve cells) activity is increased to reinforce the behavior. Norepinephrine (regulates blood pressure and blood glucose level) level is increased so that heart rate and blood pressure increases, which can be risky to some people. Serotonin level is also increased which accelerates the hormone which affect sexual arousal. Release of large amount of serotonin can cause emotional closeness, elevated mood [18].

### **Effects**

The effect can be seen from 20 min to an hour when the drug is consumes sometime the effect can last up to 6 hours. effect can be different on the basis of health weight and size of the person, the amount of drug person is taking, depends on strength of drug, whether person already takes that drug or not.

The effect can be, a person may feel energetic, his/her pupils size increases, the rate of heart beat increases, person may feel dehydrated, reduce in appetite, person can experience excessive sweating, pain in body or muscle pain. The perception power changes. A person may experience hallucinations, anxiety vomiting, the body temperature of person may get increased. [19]

### **Legal status**

The production of MDMA is legally controlled in many countries under UN convention on psychotropic substances. The illegal use, sale or manufacturing of these drugs are considered to be criminal offence. Australia and United Kingdom has declared MDMA as illegal substance. United States and Canada has placed this drug under schedule 1 of control substance act

### **Trend of abuse**

It is found that student of high school, teen and adults are more into the use of this drug. Previously it was only abused in night clubs but now many more people started abusing it. People in age between 18-25 years were using this drug more [20]

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