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STREET DRUGS AS FROM THE HEIGHT OF ECSTASY TO THE DEPTHS OF HELL; AS QUICK AS A FLASH

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ABSTRACT

From the height of ecstasy to the depths of hell. As quick as a flash. Then brain damage for the rest of your life. This is what some street drugs can do to you and even after you've stopped, these drugs may have scorched the delicate tissue of your brain and changed you into a monster, capable of the most horrifying acts of violence. Or you might be left in a dark well of depression, from which nothing can save you. It doesn't matter which drug you try, even if it's only once - you have to know you're playing with fire. The stuff you're smoking, sniffing or shooting up is going to hit your brain with the force of a lightning bolt. It's not the moral custodians, teachers and religious ministers who say so. It's hardened policemen, chemical scientists and psychiatrists who have witnessed the effects of these drugs with bewilderment. Forget everything you thought you knew about drugs. Nothing can prepare you for the havoc caused by Charlie and crystal, hot ice, china white and liquid ecstasy and it's not happening somewhere else; it's happening here in our neighbourhoods, schools and universities, to normal teenagers who "just wanna have fun" and adults who should know better. It makes the drugged-hippie era look like a Sunday school picnic. Modern drugs are so much more powerful, so much more intense, taking you to ecstatic peaks of euphoria and energy - then dropping you into the depths of despair. No wonder it's called a crash. Until recently no one knew the extent of the devastation caused in your brain by this chemical violence.

KEYWORDS: Uppers, Downers, Hallucinogens, Euphoria, Psychedelics.

OVERVIEW

Street drugs are defined as any illegal substance taken for non-medical purposes. The dangers and side effects of taking illegal drugs depend on the type of drug, the method of taking them, the dose and the circumstances. Street drugs may also contain harmful impurities. For example, a chemical in mandrax tablets can cause lung cancer. In the wake of drug use, one can follow the crimes associated with it. Violent crime in the Western Cape has increased enormously and is attributed to the dramatic rise in the use of tick. Tick changes the brain chemistry and numbs the moral reaction of users. Killing or raping someone is nothing to them.[1]

The most common street drugs

There are three main classes: **uppers (stimulants), downers (depressants) and hallucinogens (which cause you to see strange things).**

Uppers (stimulants): Uppers include cocaine, crack, Ecstasy, tick, crystal meth or methamphetamine, amphetamines, ephedrine and khat. These substances stimulate the brain and increase the heart rate. Young people use them to feel stronger, more energetic and more decisive. Typical signs of stimulant use are a reduced appetite, high energy levels, insomnia, dilated pupils, talkativeness, irritability, anxiety, increased excitability and hyperactivity, abrupt mood changes, impatience and nervousness.

Stimulants, sometimes called “uppers,” temporarily increase alertness and energy. The most commonly used street drugs that fall into this category are cocaine and amphetamines. Prescription stimulants come in tablets or capsules. When abused, they are swallowed, injected in liquid form or crushed and snorted.

SHORT-TERM EFFECTS

The short-term effects of stimulants include exhaustion, apathy and depression—the “down” that follows the “up.” It is this immediate and lasting exhaustion that quickly leads the stimulant user to want the drug again. Soon he is not trying to get “high,” he is only trying to get “well”—to feel any energy at all.

LONG-TERM EFFECTS

Stimulants can be addictive. Repeated high doses of some stimulants over a short period can lead to feelings of hostility or paranoia. Such doses may also result in

dangerously high body temperatures and an irregular heartbeat.

Downers (depressants): Sometimes called "downers," these drugs come in multicolored tablets and capsules or in liquid form. Some drugs in this category, such as Zyprexa, Seroquel and Haldol, are known as "major tranquilizers" or "antipsychotics," as they are supposed to reduce the symptoms of mental illness. Depressants such as Xanax, Klonopin, Halcion and Librium are often referred to as "benzos" (short for benzodiazepines). Other depressants, such as Amytal, Numbutal and Seconal, are classed as barbiturates—drugs that are used as sedatives and sleeping pills.

SHORT-TERM EFFECTS

Slow brain function, Slowed pulse and breathing, Lowered blood pressure, Poor concentration, Confusion, Fatigue, Dizziness, Slurred speech, Fever, Sluggishness, Visual disturbances, Dilated pupils, Disorientation, lack of coordination, Depression, Difficulty or inability to urinate, Addiction.

Higher doses can cause impairment of memory, judgment and coordination, irritability, paranoia and suicidal thoughts. Some people experience the opposite of the intended effect, such as agitation or aggression. Using sedatives (drugs used to calm or soothe) and tranquilizers with other substances, particularly alcohol, can slow breathing and the heart rate and even lead to death.

LONG-TERM EFFECTS

Tolerance to many depressants can develop rapidly, with larger doses needed to achieve the same effect. The user, trying to reach the same high, may raise the dose to a level that results in coma or death by overdose. Long-term use of depressants can produce depression, chronic fatigue, breathing difficulties, sexual problems and sleep problems. As a dependency on the drug increases, cravings, anxiety or panic are common if the user is unable to get more. Withdrawal symptoms include insomnia, weakness and nausea. For continual and high-dose users, agitation, high body temperature, delirium, hallucinations and convulsions can occur. Unlike withdrawal from most drugs, withdrawal from depressants can be life-threatening. These drugs can also increase the risk of high blood sugar, diabetes, and weight gain (instances of up to 100 pounds have been reported). In a study conducted by USA Today, based on Food and Drug Administration data over four-year period, antipsychotics (a type of depressant) were the prime suspects in forty-five deaths caused by heart problems, choking, liver failure and suicide.[2]

Hallucinogens

Hallucinogens can be divided into three broad categories: psychedelics, dissociatives, and deliriants. They can cause subjective changes in perception, thought, emotion and consciousness. Unlike other psychoactive drugs such as stimulants and opioids, hallucinogens do not merely amplify familiar states of mind but also induce experiences that differ from those of ordinary consciousness, often compared to non-ordinary forms of consciousness such as trance, meditation, conversion experiences, and dreams. Psychedelics, dissociatives, and deliriants have a long worldwide history of use within medicinal and religious traditions. They are used in shamanic forms of ritual healing and divination, in initiation rites, and in the religious rituals of syncretistic movements such as União do Vegetal, Santo Daime, Temple of the True Inner Light, and the Native American Church. When used in religious practice, psychedelic drugs, as well as other substances like tobacco, are referred to as entheogens.

Starting in the mid-20th century, psychedelic drugs have been the object of extensive attention in the Western world. They have been and are being explored as potential therapeutic agents in treating depression, post-traumatic stress disorder, Obsessive-compulsive disorder, alcoholism, and opioid addiction. Yet the most popular, and at the same time most stigmatized, use of psychedelics in Western culture has been associated with the search for direct religious experience, enhanced creativity, personal development, and "mind expansion". The use of psychedelic drugs was a major element of the 1960s counterculture, where it became associated with various social movements and a general atmosphere of rebellion and strife between generations.

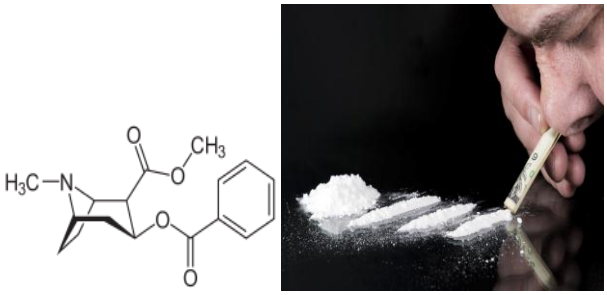

Figure-1: Cocaine.

1. Cocaine

It is available as a white powder, which is insufflated ("sniffed" into the nostrils) or converted into a solution with water and injected. A popular derivative, crack cocaine is typically smoked. When transformed into its freebase form, crack, the cocaine vapour may be inhaled

directly. This is thought to increase bioavailability, but has also been found to be toxic, due to the production of methylecgonidine during pyrolysis. This white powdery substance is commonly abused for its euphoric stimulant effects. Some street names include:

Street names: *Blow, Charlie, Coke, Bump, C, Charlie, Snow, Toot, Coca, Soda Cot.* This mind-altering drug, extracted from the coca bush in Peru, Bolivia and other mountainous countries, was once the glamour drug of the rich and famous but now more and more children are experimenting with it.

The heaven: A feeling of exhilaration, euphoria, hyperactivity, self-confidence, heightened awareness and boundless energy. The rush occurs five to 10 minutes after snorting cocaine.

The hell: Some users will experience headaches, tremors, apprehension and insomnia after a single dose. Larger doses may lead to teeth grinding and compulsive acts such as scratching and finger tapping. Users may hear voices and suffer from extreme paranoia, extreme anxiety, irrational ideas and aggression. An overdose can result in a seizure, panic attack, cardiac arrest, stroke, difficulty breathing and death.

Effects on the body: Your pulse rate increases, your blood pressure rises and your pupils dilate. After long-term use, you'll look emaciated, your sex drive will decrease, your nose will always be running and you'll get frequent colds. Cocaine is psychologically and physically addictive. Once the high wears off, addicts are left craving more stimulation.

Effects on the brain: Cocaine interferes with the natural secretion of dopamine and serotonin, two of the brain's chemical messengers that transmit feel-good sensations. As a result, these neurotransmitters accumulate and trigger the trademark "high". The scary fact is cocaine eventually depletes the level of neurotransmitters to such an extent that depression, apathy, fatigue, anxiety and suicidal depression can set in and may last for months. If the depletion is total and permanent, even the best antidepressants will be futile and the user may never be able to escape from the darkest depression. Some also develop Parkinson's disease which leaves them with a tremor at an early age.

Figure-2: Crack.

2. Crack

While the use of coca leaves as an intoxicant dates back three thousand years, crack cocaine, a crystallized form of cocaine, was developed during the cocaine boom of the 1970s and its use spread in the mid-1980s. The yellowish rock known as “crack” is a version of cocaine that is smoked to produce an intense, immediate, and short-lasting high. It will share some street names with the powder form, as well as specific names like:

Street names: *Candy, Flake, Rock, Freebase*. Crack is a cheap and deadly form of cocaine, turned into smokeable "rocks" with the use of additives. Crack is cocaine intensified and kicking a crack habit is three times as difficult.

The heaven: Feelings of wellbeing, mental exhilaration and euphoria. The high is intense but lasts little over 10 minutes.

The hell: The euphoric feeling is quickly followed by devastating depression equal in intensity, creating the need to smoke again and again. This cycle of highs and lows causes an addiction that takes hold faster than with any other drug.

Effects on the body: The same as for cocaine but intensified. Users may see snowlights or halos. Their heart rate may become irregular, increasing the risk of a heart attack.

Effects on the brain: Because it's smoked it delivers a high dose of the drug to the brain in less than 10 seconds - with a potency five to 10 times greater than snorted cocaine. The assault on the brain is quicker and more profound. It alters the biochemical state of the brain by changing the dopamine and serotonin receptors and depleting the stores of these two feel-good neurotransmitters. This damage can be permanent, leading to severe paranoia, lasting suicidal depression or murderous rage.[3]

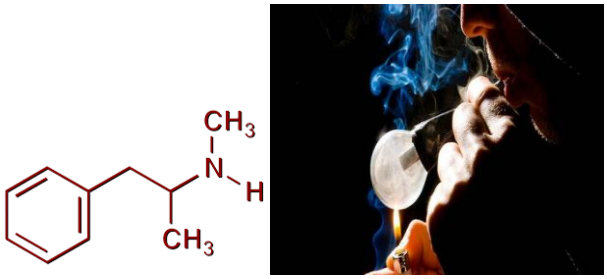

Figure-3: Ice (Crystal methamphetamine).

3. Ice (Crystal methamphetamine)

Street names: *crystals, crystal, meth, rock, candy, batu, glass, LA glass, super ice, hot ice, LA crystal, Hawaiian salt.* This newer and deadlier form of crystallized methamphetamine is nearly 100 per cent pure methamphetamine. Odourless and smoked in glass pipes, it is more lethal than crack and cocaine and seemingly more addictive.

The heaven: Within seconds smokers feel an intense wave of physical and mental exhilaration. The effects may last from four to 14 hours.

The hell: Intense feelings of anxiety, depression, sleeplessness and fatigue, and eventually psychosis. Toxic psychosis similar to paranoid schizophrenia can also result from heavy, short- or long-term use.

Effects on the body: Users need ever-heavier doses to reach the same high. Prolonged use damages the lungs, liver and kidneys.

Effects on the brain: Brain damage is similar to tick, but to a greater degree.

Figure-4: Ecstasy (3,4-methylenedioxy-methamphetamine)

4. Ecstasy(3,4-methylenedioxy-methamphetamine)

3,4-methylenedioxy-methamphetamine (MDMA)—This stimulant substance has combined effects of increasing energy/alertness as well as creating hallucinogenic effects. Commonly called "ecstasy" but may be also be referred to as:

Street names: *XTC, E, Adam, MDMA, Beans, Clarity, Disco Biscuit, Eve, Molly, Lover's Speed, Peace, STP, X, Uppers.* Ecstasy is a rave or party drug and is often taken to enable the user to dance through the night. It's knocked together like tick. Why does it have such a cool-sounding name? Because methylenedioxymethamphetamine (MDMA) is somewhat of a tongue-twister.

The heaven: There's an enhanced sense of pleasure, increased self-confidence and loads of energy, peacefulness, acceptance and empathy. The high lasts between four and six hours.

The hell: Users may develop blurred vision, sweat a lot, clench their teeth or bite the inside of their cheeks and suffer seizures, nausea and vomiting. Used regularly for a long time or in large doses it can make you extremely depressed and paranoid and cause panic attacks.

Effects on the body: Even in small doses Ecstasy can be dangerous to people with heart disease and asthma. Large doses can lead to overheating of the body and brain, dehydration, water retention, stroke and heart attack.

Effects on the brain: Ecstasy affects your brain by increasing the release and activity of at least three neurotransmitters (serotonin, dopamine and norepinephrine), and when it depletes these stores, especially the serotonin stores, it can lead to chronic depression. Psychiatrists say they are experiencing an increase in psychotic episodes and permanent brain damage among Ecstasy users.

Danger: Many knocked-together street drugs are sold as heroin or cocaine substitutes to naive or desperate users under the misleading name of designer drugs. Chances of an overdose are high because you don't know what you're buying.

Commonly known as ecstasy, it is a common club drug in the rave scene.

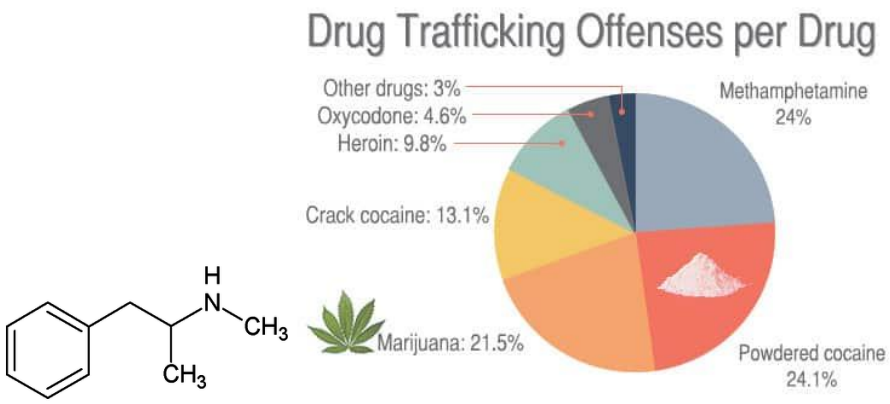

Figure-5: Methamphetamine.

5. Methamphetamine (N-methylamphetamine)

In the Western Cape there are already young tick users who have Parkinson's. Psychiatrists are also worried about the increase in cases of schizophrenia and psychosis among tick users. It seems as if tick damages the human brain to such an extent that users start acting like extremely aggressive psychopaths. This is reflected by the Narcotics Bureau's observation that murders and rapes committed by tick abusers are becoming a lot more senseless and aggressive. Babies born to moms who used tick during pregnancy have a greater risk of developing Parkinson's disease in their childhood years. Much worse: the birth of babies with intestines outside their tiny bodies is a regular occurrence at some Cape Peninsula hospitals. This powerful stimulant increases energy and activity levels while decreasing the need for sleep. This substance is associated with poor decision-making, violence, and dangerous, erratic behaviors. Users are often called "tweakers," while the substance is commonly called:

Street names: *Tick, Tic-tac, Crystal, Meth, Crystal meth, Crank, Uppers, Speed, Batu, Bikers' Coffee, Black Beauties, Chalk, Chicken Feed, Fire, Glass, Go Fast, Ice, Methlies Quick, Shards, Speed, Stove Top, Tina, Trash, Tweak, Whiz.* Tick is also a knocked-together drug and is sold in the form of powders, pills and capsules that are sniffed, smoked or injected. It can be manufactured at home from medicines that are available over the counter.[4]

The heaven: Like cocaine and crack, tick leads to increased alertness, energy and self-confidence, a heightened sense of sexuality and euphoria.

The hell: Aggression, violence, psychotic behaviour, memory loss and heart and brain damage. Long-term users face insomnia, psychotic episodes, paranoia, hallucinations and collapse.

Effects on the body: Trembling hands, increased heart rate and sweating. An overdose can result in stroke and heart failure. Long-term use leads to an increased risk of hepatitis C and HIV as the drug is injected and often prompts risky sexual behaviour.

Effects on the brain: Tick acts as a stimulant, similar to cocaine - but stays in the system for longer. The exhaustion of the brain's dopamine supply is extremely worrying. A tick addict loses up to half his dopamine supply every two years, compared with the 5-10% every 10 years for the average person. Dopamine helps to regulate coordinated movement and as soon as its levels drop by 15%, the victim develops Parkinson's disease, characterized by head and hand tremors.

Downers (depressants): These suppress or delay certain brain functions. Depending on which part of the brain is being suppressed, they are divided into sub-groups: either narcotic or tranquillizing substances such as heroin or substances that make you sleepy such as mandrax. Used recreationally to provide alertness and a sense of energy, whether for all-night studying or all-night dancing. Prescribed for ADHD, narcolepsy, depression and weight loss. A potent central nervous system stimulant, in the 1940s and 50s methamphetamine was used by Axis and Allied troops in World War II, and, later on, other armies, and by Japanese factory workers. It increases muscle strength and fatigue resistance and improves reaction time. Methamphetamine use can be neurotoxic, which means it damages dopamine neurons. As a result of this brain damage, chronic use can lead to post acute withdrawal syndrome.

6. Heroin (Diacetyl morphine)

This substance, which is essentially a modified form of the morphine alkaloid derived from opium poppies, can be consumed numerous ways (e.g., snorting, smoking, or injection) leading to an intense and addictive high.

Street names: *smack, mud, china white, brown, Mexican brown, brown sugar, gear, H, horse, junk. Brown Sugar, Chiva, Dope, Hell Dust, Negra, Skag, Skunk, Tar, Thunder, White Horse, Heroin w/ OTC Cold Meds & Antihistamine: Cheese* Heroin is produced from the resin of the opium poppy and is the most dangerous and addictive narcotic. Pure heroin is a white, odourless crystalline-like powder with a bitter taste. The browner the colour, the more impurities it contains. It is often diluted with starch, sugars such as glucose, powdered milk, baby powder, washing powder, strychnine or other poisons before being sold. It is smoked, snorted or injected.

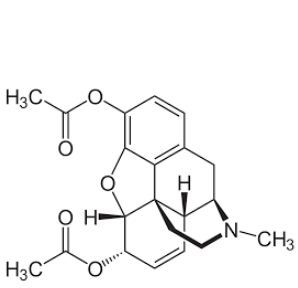


Figure-6: Heroin (Diacetyl morphine)

The heaven: A profound sense of warmth and wellbeing envelops the user and blocks feelings of pain and insecurity.
The hell: Within six to eight hours symptoms such as nausea, vomiting, chills, excessive sweating and muscle and bone pain may follow. The real hell starts with the withdrawal symptoms which can set in within two days after the last fix.
Effects on the body: First it leads to suppression of pain, drowsiness, heaviness of the limbs, shallow breathing, a weak pulse, dry mouth and pinpoint pupils. Long-term use causes liver damage, poisoning as a result of additives, bacterial infections, abscesses, arthritis and infection of the heart lining and valves. High dosages can result in a seizure, coma and death. Babies born to mothers who abuse heroin during their pregnancy may be born addicted.
Effects on the brain: Heroin is quickly changed to morphine in the brain, which acts on certain receptors to give that feeling of utter bliss. But the brain reacts by creating fewer of its own feel-good endorphins. Heroin destroys the chemical balance in the brain to such an extent that the user starts to experience pain in the absence of any injuries. Rapid mood changes and confusion are the result of the chemical changes in the brain.[5]

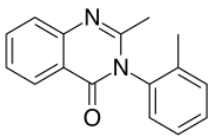


Figure-7: Mandrax (Methaqualone).

7. Mandrax (Methaqualone)
Street names: *whites, buttons.* South Africa has the highest per capita mandrax abuse in the world. Mandrax (methaqualone) tablets are usually powdered and smoked with a mixture of cannabis or tobacco in a bottleneck pipe called a "white pipe" or "witwyf".
The heaven: You feel totally laid back, at peace and without a care in the world. You're giving the world the proverbial finger.
The hell: Take too much of it and you'll feel nauseous, lose consciousness or fall into a stupor.
Effects on the body: Mandrax users can develop physical and psychological dependence on the drug, constantly craving its effects, but needing more and more to get the desired high.
Effects on the brain: Mandrax use alters the brain chemicals, suppressing brain function so that the user becomes like a zombie.
Hallucinogens: These psychedelic drugs distort reality, plunging the user into a dream world where everything is distorted and colours become audible and sounds visible. Taken in large quantities they scramble your brain, resulting in delusions and hallucinations. They also rev up the brain, causing mood swings that can vary from euphoria to the deepest depression or violence. Sometimes the loss of self and depression can be so severe that suicide may happen.

8. Cannabis (Tetrahydrocannabinol)
Street names: dagga, weed, marijuana, dope, grass, pot, ganja, hash, hashish. In South Africa cannabis is grown in rural areas and sold as a means to put food on the table. Cannabis contains more than 426 known chemicals, including the mind-altering substances known as THCs (tetrahydrocannabinols).

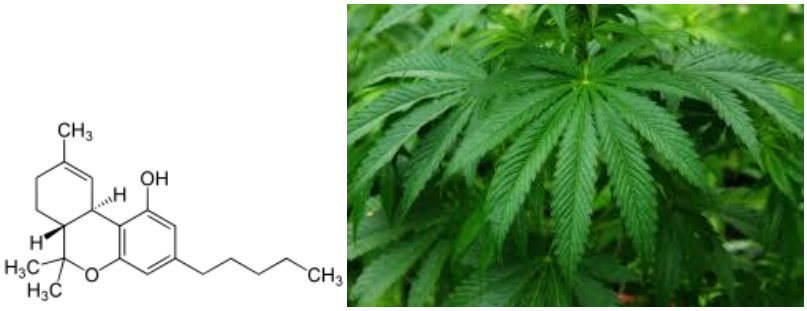

Figure-8: Cannabis (Tetrahydrocannabinol)

The heaven: You feel euphoric and relaxed.
The hell: Panic attacks, hallucinations, flashbacks and memory loss.
Effects on the body: It causes frequent sinusitis and bronchitis and may cause infertility in men and women. Lung cancer is a real risk. It may harm an unborn baby, leading to miscarriage, stillbirth or early death. Foetal marijuana syndrome - characterized by lower birth weight and developmental abnormalities - is five times more common than foetal alcohol syndrome.
Effects on the brain: THC changes the brain chemistry that governs feelings, memory, the senses and co-ordinated movement.

Its common forms include marijuana and hashish, which are smoked or eaten. It contains at least 85 cannabinoids. The primary psychoactive component is THC, which mimics the neurotransmitter anandamide, named after the Hindu ananda, "joy, bliss, delight." The review article Campbell & Gowran (2007) states that "manipulation of the cannabinoid system offers the potential to upregulate neuroprotective mechanisms while dampening neuroinflammation. Whether these properties will be beneficial in the treatment of Alzheimer's disease in the future is an exciting topic that undoubtedly warrants further investigation."

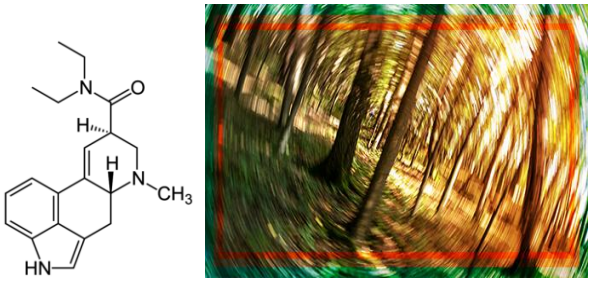

Figure-9: LSD (Lysergic acid diethylamide).

9. LSD (Lysergic acid diethylamide)
A popular ergoline derivative that was first synthesized in 1938 by Hofmann. However, he failed to notice its psychedelic potential until 1943. In the 1950s, it was used in psychological therapy, and, covertly, by the CIA in Project MKULTRA, in which the drug was administered to unwitting US and Canadian citizens. It played a central role in 1960s 'counter-culture', and was banned in October 1968 by US President Lyndon B Johnson. This hallucinogenic substance distorts reality and can produce drug-induced psychosis. Profoundly negative effects are often referred to as “bad trips.”

Street names: *Acid, Blotter acid, Microdot, White lightning, Blue Heaven, Cubes, Dots, Mellow Yellow, Window Pane, Yellow Sunshine.* LSD is an odourless and colourless drug available in two forms: paper stamps impregnated with LSD or micro-tablets ("microdots") containing LSD in very low concentrations per tablet.
The heaven: It seems as though you have your senses crossed, giving you the feeling of hearing colours and seeing sounds. Taken in large enough doses, LSD produces delusions and visual hallucinations.
The hell: Mental disorders such as schizophrenia and severe depression.
Effects on the body: Increased heart rate, increased blood pressure, numbness and weakness.

LSD affects a large number of chemicals in the brain, including the neurotransmitters dopamine and serotonin. The drug may also increase the levels of a substance called glutamate in very specific parts of the brain, over-stimulating the brain cells and causing an "electric storm". Each electric storm causes hallucinations, and can lead to permanent changes.

Effects on the brain: Spying on your brain: New technology has allowed doctors to pinpoint the areas of the brain most affected by drug abuse. One method is the brain Spect (single photon emission computed tomography) which uses gamma rays to construct two- or three-dimensional images of active brain regions. With a brain Spect doctors can look at the damage done by impaired blood flow caused by various drugs, explains Dr Pieter Botha of the department of radiology at Tygerberg Hospital in Cape Town. Drugs such as

alcohol, cocaine or marijuana impair the effectiveness of blood vessels in the brain, constricting blood flow to certain areas. On scans these affected areas show up as "holes" in the brain.[6]

10. Alcohol: This is the most commonly used substance by adults. Slang terms may refer to the brand or variety of alcohol or may be more general. *Street names: Booze, Juice, Hooch, Sauce, Rotgut*

Most drinking alcohol is ethanol, CH_3CH_2OH. Drinking alcohol creates intoxication, relaxation and lowered inhibitions. It is produced by the fermentation of sugars by yeasts to create wine, beer, and distilled liquor (e.g., vodka, rum, gin, etc.). In most areas of the world, apart from certain countries where Muslim sharia law is used, it is legal for those over a certain age (typically 18–21). It is an IARC 'Group 1' carcinogen and a teratogen. Alcohol withdrawal can be life-threatening.

11. Dimethyltryptamine: A hallucinogenic substance derived from plants in South America, it is known for its short but intense effects. *Street names: DMT, Dimitri, Businessman's Trip.*

Primary ingredient in ayahuasca can also be smoked in a crack pipe; briefly (c. 30 minutes) causes a "total loss of connection to external reality".

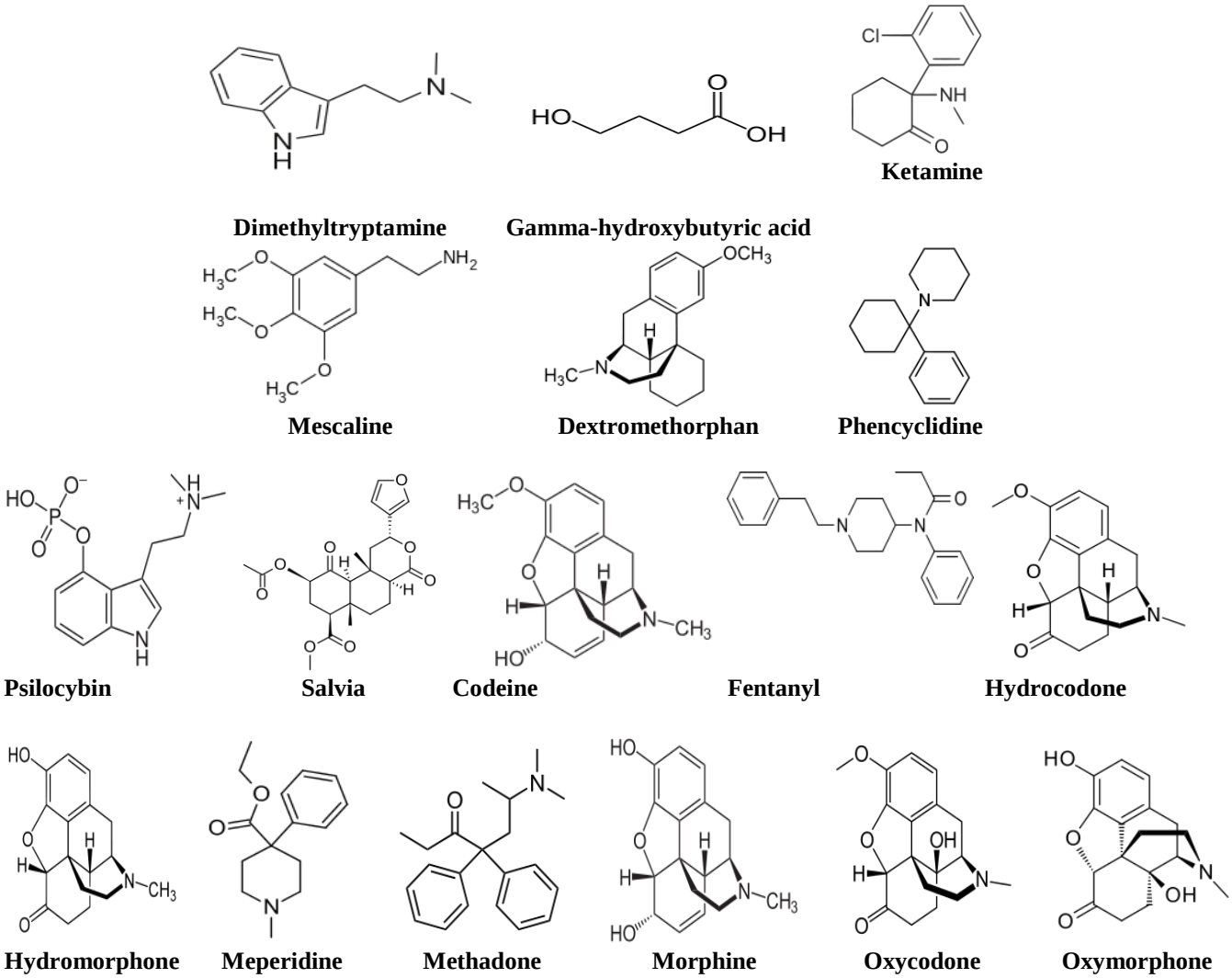

Figure-10: Hallucinogens

Oxymorphone

12. Gamma-hydroxybutyric acid (GHB)

This medication is used to treat narcolepsy but may be abused for its ability to induce euphoria. It is sometimes used as a date rape drug. *Street names: G, Georgia Home Boy, Goop, Grievous Bodily Harm, Liquid Ecstasy, Liquid X, Soap, Scoop.*

13. Inhalants

A group of abused substances that comprises a wide range of solvents, glues, and other volatile products often found around the home. Inhalants give off fumes or vapors, which are then inhaled by the user, providing them with a short-lived but dangerous high. *Street names: Dusters, Gluey, Huff, Laughing Gas, Poppers, Rush, Snappers, Whippets.*

Nitrous oxide: legally used by dentists as an anxiolytic and anaesthetic, it is also used recreationally by users who obtain it from whipped cream canisters, as it causes perceptual effects, a "high" and at higher doses, hallucinations.

14. Ketamine
This dissociative drug is mainly used in veterinary medicine and results in feelings of detachment from reality. *Street names: Cat Tranquilizer, Cat Valium, Jet K, K, Kit Kat, Purple, Special K, Vitamin K.*

An anesthetic used legally by paramedics and doctors in emergency situations for its dissociative and analgesic qualities and illegally in the club drug scene.[7]

15. Khat
This plant grown in Africa and the Middle East can be chewed to produce a sense of euphoria and increased energy. *Street names: Abyssinian Tea, African Salad, Catha, Chat, Cat, Oat.*

Figure-11: Khat.

16. Marijuana
This psychoactive drug substance with the active ingredient delta-9-tetrahydrocannabinol (THC) is used frequently with increased legal status. *Street names: Aunt Mary, Blunt, Bud, Chronic, Dope, Ganja, Grass, Green, Herb, Hydro, Indo, Joint, Kif, Mary Jane, Pot, Reefer, Sense, Sinsemilla, Skunk, Smoke, Trees*

17. Hashish
A concentrated form of delta-9-tetrahydrocannabinol (THC) produced from the same plants that produce marijuana, it is available as an oily substances or a hard resin. *Street names: Boom, Dabs, Gangster, Hash, Hemp*

18. Mescaline
Found in varieties of cacti, this substance induces perceptual disturbances and pleasurable mood changes. *Street names: Peyote, Buttons, Cactus. Mesc.*

19. Dextromethorphan
Found in certain over-the-counter cough and cold medicines, this substance produces hallucinations and paranoia when taken in large doses. *Street names: CCC, Dex, Poor man's PCP, Robotripping, Robo, Skittles, Triple C, Velvet.*

20. Phencyclidine (PCP)
Previously used as a surgical anesthetic, PCP can create a sense of profound dissociation and can sometimes elicit psychotic symptoms such as delusions and hallucinations. *Street names: Angel Dust, Boat, Hog, Love Boat, Peace Pill, Sherm, Mixed with marijuana: Zombie Weed.*

21. Psilocybin
Grown in North and South America, these mushrooms can trigger hallucinations, the inability to track time, and an altered sense of reality. *Street names: Little Smoke, Magic Mushrooms, Purple Passion, Shrooms.*

This hallucinogenic drug was an important drug in the psychedelic scene. Until 1963, when it was chemically analyzed by Albert Hofmann, it was completely unknown to modern science that *Psilocybe semilanceata* ("Liberty Cap", common throughout Europe) contains psilocybin, a hallucinogen previously identified only in species native to Mexico, Asia, and North America.

22. Salvia
A naturally-occurring herb (*Salvia divinorum*) that is native to Mexico, this substance results in feelings of separation from the body and confusion. *Street names: Magic Mint, Maria Pastora, Sally-D, Shepherdess's Herb, Diviner's Sage.*
This hallucinogenic Mexican herb in the mint family; not considered recreational, most likely due to the nature of the hallucinations (legal in some jurisdictions).

23. Steroids
Legally available to treat hormone deficits, anabolic steroids are abused by those looking to add muscle mass or aid recovery following exercise. *Street names: Arnolds, Juice, Gym Candy, Pumpers, Roids, Stackers, Weight Gainers.*

24. Synthetic Cannabinoids
A combination of herbs with chemicals added to produce a "high," this "synthetic marijuana" can be more potent and more problematic than marijuana. *Street names: K2,*

Spice, Black Mamba, Bliss, Bombay Blue, Fake Weed, Fire, Genie, Moon Rocks, Smacked, Yucatan, Zohai.

Spice/K2 is a mixture of herbs and spices with effects similar to marijuana. It arrived on the market in 2008 as a widely-available alternative to marijuana. Spice/K2 is typically sprayed with synthetic compounds chemically similar to THC. The synthetic drug was deemed unsafe and is currently illegal. Spice/K2 attaches and binds more strongly to the same cell receptors as THC. This can lead to a much more powerful and unpredictable effect. Because the chemical composition of many products sold as Spice/K2 is unknown, some varieties may contain substances which produce dramatically different effects than the user might expect. The effects of Spice/K2 include relaxation and altered perception. It can cause psychotic effects such as extreme anxiety, paranoia and hallucinations. Spice/K2 can cause rapid heart rate/blood pressure, vomiting, agitation, confusion, hallucinations, myocardial ischemia and heart attack. Regular users can experience addiction and withdrawal symptoms. Contrary to popular belief, Spice/K2 is not a safe alternative to marijuana. The chemicals used for the production of synthetic pot can be more potent than natural THC and may have more dangerous side effects.

25. Synthetic cathinones (bath salts)

These substances are man-made chemicals that are related to the natural substances found in khat. They can produce a strong sense of euphoria as well as dangerous and erratic behaviors. Bath salts are generally referred to by their many brand names, including:

Street names: *Bloom, Cloud Nine, Cosmic Blast, Flakka, Ivory Wave, Lunar Wave, Scarface, Vanilla Sky, White Lightning.*[8]

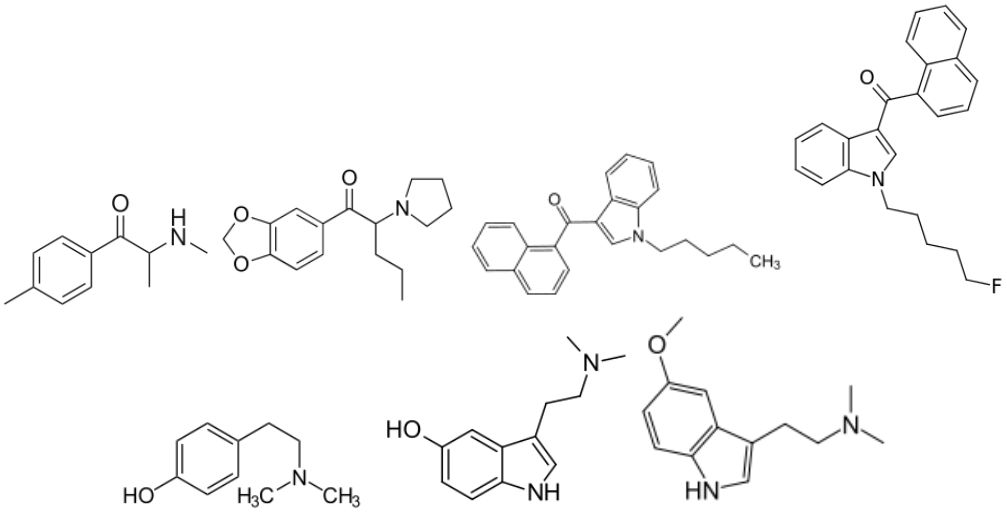

Figure-12: Mephedrone, Methylenedioxypyrovalerone, JWH-018, AM-2201, Hordenine, 5-hydroxy-dimethyltryptamine, 5-methoxy-N,N-dimethyltryptamine

26. Prescription Opioids (Painkillers)

This segment covers a large amount of substances with tremendous variability. Some of the terms will be used interchangeably or called "pain pills" or "painkillers" in a generic sense. Though this group produces similar effects of decreased perceptions of pain and a pleasurable "high," the strength and specific effects may vary somewhat. Prescription narcotics include:

a. Codeine

Street names: Captain Cody, Cody, Schoolboy

Codeine syrup mixed with alcohol: Lean, Sizzurp and Purple Drank Codeine mixed with the sedative glutethimide: Doors and Fours, Loads, Pancakes and Syrup.

b. Fentanyl

Street names: Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder 8, Tango and Cash, TNT.

c. Hydrocodone

Street names: Hydro, Narco, Vickies, Vike, Watson-387, Vicodin, Lorcet, Lortab.

d. Hydromorphone (Dilaudid)

Street names: D, Dillies, Dust, Footballs, Juice, Smack

e. Meperidine

Street names: Demmies, Pain killer.

f. Methadone

Street names: Amidone, Fizzies, Wafer Methadone mixed with MDMA: Chocolate Chip Cookies.

g. Morphine

Opiates and opioids: Available by prescription for pain relief. Commonly abused opioids include oxycodone, hydrocodone, codeine, fentanyl, heroin, and morphine. Opioids have a high potential for addiction and have the ability to induce severe physical withdrawal symptoms upon cessation of frequent use. Heroin can be smoked, insufflated or turned into a solution with water and injected.

Street names: Dreamer, Emsel, First Fine, God's Drug, Hows, M, M.S, Miss Emma, Mister Blue, Monkey, Morf, Morpho, Unkie, White Stuff

h. Oxycodone
Street names: Hillbilly Heroin, Kicker, O.C, Oxycet, Oxycotton, Oxy, Percs, Roxy
i. Oxymorphone (Opana)
Street names: Biscuits, Blue Heaven, Blues, Mrs. O, O bomb, Octagons, Stop signs
j. Caffeine
Often found in coffee, black tea, energy drinks, some soft drinks (e.g., Coca-Cola, Pepsi and Mountain Dew, among others), and chocolate. It is the world's most widely consumed psychoactive drug, it has no dependence liability.

37. Tobacco: *Nicotiana tabacum*. Nicotine is the key drug contained in tobacco leaves, which are either smoked, chewed or snuffed. It contains nicotine, which crosses the blood–brain barrier in 10–20 seconds. It mimics the action of the neurotransmitter acetylcholine at nicotinic acetylcholine receptors in the brain and the neuromuscular junction. The neuronal forms of the receptor are present both post-synaptically (involved in classical neurotransmission) and pre-synaptically, where they can influence the release of multiple neurotransmitters.

38. Tranquilizers: barbiturates, benzodiazepines (commonly prescribed for anxiety disorders; known to cause dementia and post acute withdrawal syndrome).[9]

39. Bath salts: this is the street name for Mephedrone/Methylenedioxypyrovalerone (MDPV)

40. Peyote: This hallucinogen contains hordenine, native to southwestern Texas and Mexico.

41. Synthetic cannabis: JWH-018 (1-pentyl-3-(1-naphthoyl)indole), AM-2201 (1-(5-fluoropentyl)-3-(1-naphthoyl)indole),

Figure 13: Just wanna have fun.

Routes of administration
Drugs often associated with a particular route of administration. Many drugs can be consumed in more than one way. For example, marijuana can be swallowed like food or smoked, and cocaine can be "sniffed" in the nostrils, injected, or, with various modifications, smoked.

1. ***Inhalation*:** all intoxicative inhalants that are gases or solvent vapours that are inhaled through the trachea, as the name suggests.
2. ***Insufflations*:** also known as "sniffing", or "snorting", this method involves the user placing a powder in the nostrils and breathing in through the nose, so that the drug is absorbed by the mucous membranes. Drugs that are "sniffed", or "snorted", include powdered amphetamines, cocaine, heroin, ketamine and MDMA. Additionally, snuff tobacco.
3. ***Intravenous injection*:** the user injects a solution of water and the drug into a vein, or less commonly, into the tissue. Drugs that are injected include morphine and heroin, less commonly other opioids. Stimulants like cocaine or methamphetamine may also be injected. In rare cases, users inject other drugs.

***Oral intake*:** caffeine, ethanol, cannabis edibles, psilocybin mushrooms, coca tea, poppy tea, laudanum, GHB, ecstasy pills with MDMA or various other substances (mainly stimulants and psychedelics), prescription and over-the-counter drugs (ADHD and narcolepsy medications, benzodiazapines, anxiolytics, sedatives, cough suppressants, morphine, codeine, opioids and others)

1. ***Sublingual*:** substances diffuse into the blood through tissues under the tongue. Many psychoactive drugs can be or have been specifically designed for sublingual administration, including barbiturates, benzodiazepines, opioid analgesics with poor gastrointestinal bioavailability, LSD blotters, coca leaves, some hallucinogens. This route of administration is activated when chewing some forms of smokeless tobacco (e.g. dipping tobacco, snus).
2. ***Intrarectal*:** administering into the rectum, most water-soluble drugs can be used this way.
3. ***Smoking*:** tobacco, cannabis, opium, crystal meth, phencyclidine, crack cocaine and heroin diamorphine as freebase) known as chasing the dragon.
4. ***Transdermal*:** patches with prescription drugs: e.g. methylphenidate (Daytrana) and fentanyl.

Many drugs are taken through various routes. Intravenous route is the most efficient, but also one of the most dangerous. Nasal, rectal, inhalation and

smoking are safer. The oral route is one of the safest and most comfortable, but of little bioavailability.[10]

TYPES

1. *Depressants*: Depressants are psychoactive drugs that temporarily diminish the function or activity of a specific part of the body or mind. Colloquially, depressants are known as "downers", and users generally take them to feel more relaxed and less tense. Examples of these kinds of effects may include anxiolysis, sedation, and hypotension. Depressants are widely used throughout the world as prescription medicines and as illicit substances. When these are used, effects may include anxiolysis (reduction of anxiety), analgesia (pain relief), sedation, somnolence, cognitive/memory impairment, dissociation, muscle relaxation, lowered blood pressure/heart rate, respiratory depression, anesthesia, and anticonvulsant effects. Depressants exert their effects through a number of different pharmacological mechanisms, the most prominent of which include facilitation of GABA or opioid activity, and inhibition of adrenergic, histamine or acetylcholine activity. Some are also capable of inducing feelings of euphoria (a happy sensation). The most widely used depressant is by far alcohol.

2. *Stimulants*: These are "uppers", such as amphetamines or cocaine, which increase mental or physical function, have an opposite effect to depressants.

3. *Antihistamines*: These inhibit the release or action of histamine. "Antihistamine" can be used to describe any histamine antagonist, but the term is usually reserved for the classical antihistamines that act upon the H1 histamine receptor. Antihistamines are used as treatment for allergies. Allergies are caused by an excessive response of the body to allergens, such as the pollen released by grasses and trees. An allergic reaction causes release of histamine by the body. Other uses of antihistamines are to help with normal symptoms of insect stings even if there is no allergic reaction. Their recreational appeal exists mainly due to their anticholinergic properties, that induce anxiolysis and, in some cases such as diphenhydramine, chlorpheniramine, and orphenadrine, a characteristic euphoria at moderate doses. High dosages taken to induce recreational drug effects may lead to overdoses. Antihistamines are also consumed in combination with alcohol, particularly by youth who find it hard to obtain alcohol. The combination of the two drugs can cause intoxication with lower alcohol doses.

4. *Hallucinations*: These are possibly delirium resembling the effects of *Datura stramonium* can result if the drug is taken in much higher than therapeutical dosages. Antihistamines are widely available over the counter at drug stores (without a prescription), in the form of allergy medication and some cough medicines. They are sometimes used in combination with other substances such as alcohol. The most common unsupervised use of antihistamines in terms of volume and percentage of the total is perhaps in parallel to the medicinal use of some antihistamines to stretch out and intensify the effects of opioids and depressants. The most commonly used are hydroxyzine, mainly to stretch out a supply of other drugs, as in medical use, and the above-mentioned ethanolamine and alkylamine-class first-generation antihistamines, which are - once again as in the 1950s - the subject of medical research into their anti-depressant properties.

5. *Analgesics*: Analgesics (also known as "painkillers") are used to relieve pain (achieve analgesia). The word analgesic derives from Greek "αν-" (an-, "without") and "άλγος" (álgos, "pain"). Analgesic drugs act in various ways on the peripheral and central nervous systems; they include paracetamol (para-acetylaminophenol, also known in the US as acetaminophen), the nonsteroidal anti-inflammatory drugs (NSAIDs) such as the salicylates, and opioid drugs such as hydrocodone, codeine, heroin and oxycodone. Some further examples of the brand name prescription opiates and opioid analgesics that may be used recreationally include Vicodin, Lortab, Norco (hydrocodone), Avinza, Kapanol (morphine), Opana, Paramorphan (oxymorphone), Dilaudid, Palladone (hydromorphone), and OxyContin (oxycodone).

6. *Tranquilizers*: GABAergics, Barbiturates, Benzodiazepines, Ethanol (drinking alcohol; ethyl alcohol), Nonbenzodiazepines

7. *Others*: carisoprodol (Soma), chloral hydrate, diethyl ether, ethchlorvynol (Placidyl; "jelly-bellies"), gamma-butyrolactone (GBL, a prodrug to GHB), gamma-hydroxybutyrate (GHB; G; Xyrem; "Liquid Ecstasy", "Fantasy"), glutethimide (Doriden), kava (from *Piper methysticum*; contains kavalactones), ketamine, meprobamate (Miltown), methaqualone (Sopor, Mandrax; "Quaaludes"), phenibut, propofol (Diprivan), theanine (found in *Camellia sinensis*, the tea plant), valerian (from *Valeriana officinalis*), Stimulants.

Figure-14: Height of ecstasy to the depths of hell; as quick as a flash.

Cocaine is a commonly used stimulant: Stimulants, also known as "psychostimulants", induce euphoria with improvements in mental and physical function, such as enhanced alertness, wakefulness, and locomotion. Due to their effects typically having an "up" quality to them, stimulants are also occasionally referred to as "uppers". Depressants or "downers", which decrease mental or physical function, are in stark contrast to stimulants and are considered to be their functional opposites. Stimulants enhance the activity of the central and peripheral nervous systems. Common effects may include increased alertness, awareness, wakefulness, endurance, productivity, and motivation, arousal, locomotion, heart rate, and blood pressure, and a diminished desire for food and sleep. Use of stimulants may cause the body to reduce significantly its production of natural body chemicals that fulfill similar functions. Until the body reestablishes its normal state, once the effect of the ingested stimulant has worn off the user may feel depressed, lethargic, confused, and miserable. This is referred to as a "crash", and may provoke reuse of the stimulant.[11]

Examples include: Sympathomimetics (catecholaminergics)—e.g. amphetamine, methamphetamine, cocaine, methylphenidate, ephedrine, pseudoephedrine, Entactogens (serotonergics, primarily phenethylamines)—e.g. MDMA, Eugeroics, e.g. modafinil

Others: arecoline (found in *Areca catechu*), caffeine (found in Coffea spp.), nicotine (found in *Nicotiana* spp.), rauwolscine (found in *Rauvolfia serpentina*), yohimbine (Procomil; a tryptamine alkaloid found in *Pausinystalia yohimbe*).

EUPHORIANTS

Alcohol: "Euphoria, the feeling of well-being, has been reported during the early (10–15 min) phase of alcohol consumption" (e.g., beer, wine or spirits).

Catnip: Catnip contains a sedative known as nepetalactone that activates opioid receptors. In cats it elicits sniffing, licking, chewing, head shaking, rolling, and rubbing which are indicators of pleasure. In humans, however, catnip does not act as a euphoriant.

Cannabis: Tetrahydrocannabinol, the main psychoactive ingredient in this plant can have sedative and euphoric properties.

Stimulants: "Psychomotor stimulants produce locomotor activity (the subject becomes hyperactive), euphoria, (often expressed by excessive talking and garrulous behaviour), and anorexia. The amphetamines are the best known drugs in this category".

MDMA: The "euphoriant drugs such as MDMA (‘ecstasy’) and MDEA (‘eve’)" are popular amongst young adults. MDMA "users experience short-term feelings of euphoria, rushes of energy and increased tactility."

Opium: This "drug derived from the unripe seed-pods of the opium poppy produces drowsiness and euphoria and reduces pain. Morphine and codeine are opium derivatives."

Figure 15: Hallucinogens (psychedelics, dissociatives and deliriants).

Deliriants: atropine (alkaloid found in plants of the Solanaceae family, including datura, deadly nightshade, henbane and mandrake), dimenhydrinate (Dramamine, an antihistamine), diphenhydramine (Benadryl, Unisom, Nytol), hyoscyamine (alkaloid also found in the Solanaceae), hyoscine hydrobromide (another Solanaceae alkaloid), myristicin (found in *Myristica fragrans* ("Nutmeg"), ibotenic acid (found in *Amanita muscaria* ("Fly Agaric"); prodrug to muscimol), muscimol (also found in *Amanita muscaria*, a GABAergic).

Dissociatives: dextromethorphan (DXM; Robitussin, Delsym, etc.; "Dex", "Robo", "Cough Syrup", "DXM"), "Triple C's, Coricidin, Skittles" refer to a potentially fatal formulation containing both dextromethorphan and chlorpheniramine, ketamine (K; Ketalar, Ketaset, Ketanest; "Ket", "Kit Kat", "Special-K", "Vitamin K", "Jet Fuel", "Horse Tranquilizer") methoxetamine (Mex, Mket, Mexi), phencyclidine (PCP; Sernyl; "Angel Dust", "Rocket Fuel", "Sherm", "Killer Weed", "Super Grass"), nitrous oxide (N_2O; "NOS", "Laughing Gas", "Whippets", "Balloons").

Psychedelics: Phenethylamines, 2C-B ("Nexus", "Venus", "Eros", "Bees"), 2C-E ("Eternity", "Hummingbird"), 2C-I ("Infinity"), 2C-T-2 ("Rosy"), 2C-T-7 ("Blue Mystic", "Lucky 7"), DOB, DOC, DOI, DOM ("Serenity, Tranquility, and Peace" ("STP")), MDMA ("Ecstasy", "E", "Molly", "Mandy", "MD", "Crystal Love"), mescaline (found in peyote, Peruvian torch cactus and San Pedro cactus), Tryptamines (including ergolines and lysergamides), 5-MeO-DiPT ("Foxy", "Foxy Methoxy"), 5-MeO-DMT (found in various plants like chacruna, jurema, vilca, and yopo), alpha-methyltryptamine (αMT; Indopan; "Spirals"), bufotenin (secreted by Bufo alvarius, also found in various Amanita mushrooms), dimethyltryptamine (DMT; "Dimitri", "Disneyland", "Spice"; found in most plants and animals as it is a common metabolite), lysergic acid amide (LSA; ergine; found in morning glory and Hawaiian baby woodrose seeds), lysergic acid diethylamide (LSD; L; Delysid; "Acid", "Sid". "Cid", "Lucy", "Sidney", "Blotters", "Droppers", "Sugar Cubes"), psilocin (found in psilocybin mushrooms), psilocybin (also found in psilocybin mushrooms; prodrug to psilocin), ibogaine (found in *Tabernanthe iboga* ("Iboga")), Atypicals, salvinorin A (found in *Salvia divinorum*, a trans-neoclerodane diterpenoid ("Diviner's Sage", "Lady Salvia", "Salvinorin"))

Inhalants: Inhalants are gases, aerosols, or solvents that are breathed in and absorbed through the lungs. While some "inhalant" drugs are used for medical purposes, as in the case of nitrous oxide, a dental anesthetic, inhalants are used as recreational drugs for their intoxicating effect. Most inhalant drugs that are used non-medically are ingredients in household or industrial chemical products that are not intended to be concentrated and inhaled, including organic solvents (found in cleaning products, fast-drying glues, and nail polish removers), fuels (gasoline (petrol) and kerosene), and propellant gases such as Freon and compressed hydrofluorocarbons that are used in aerosol cans such as hairspray, whipped cream, and non-stick cooking spray. A small number of recreational inhalant drugs are pharmaceutical products that are used illicitly, such as anesthetics (ether and nitrous oxide) and volatile anti-angina drugs (alkyl nitrites).[12]

The most serious inhalant abuse occurs among children and teens that live on the streets completely without family ties. Inhalant users inhale vapor or aerosol propellant gases using plastic bags held over the mouth or by breathing from a solvent-soaked rag or an open container. The effects of inhalants range from an alcohol-like intoxication and intense euphoria to vivid hallucinations, depending on the substance and the dosage. Some inhalant users are injured due to the harmful effects of the solvents or gases, or due to other chemicals used in the products that they are inhaling. As with any recreational drug, users can be injured due to dangerous behavior while they are intoxicated, such as driving under the influence. Computer cleaning dusters are dangerous to inhale, because the gases expand and cool rapidly upon being sprayed. In some cases, users have died from hypoxia (lack of oxygen), pneumonia, cardiac failure or arrest, or aspiration of vomit.

Examples include: Chloroform, Ethyl chloride, Diethyl ether, Ethane and ethylene, Laughing gas (nitrous oxide), Poppers (alkyl nitrites), Solvents and propellants (including propane, butane, freon, gasoline, kerosene, toluene) and the fumes of glues containing them.

List of drugs which can be smoked

Plants: tobacco, cannabis, salvia divinorum, opium, datura and other Solanaceae (formerly smoked to treat asthma), possibly other plants, Substances (also not necessarily psychoactive plants soaked with them): methamphetamine, crack cocaine, black tar heroin phencyclidine (PCP), synthetic cannabinoids, dimethyltryptamine (DMT), 5-MeO-DMT.
many others, including some prescription drugs.

List of psychoactive plants, fungi and animals

1. Minimally psychoactive plants which contain mainly caffeine and theobromine: Coffee, tea (caffeine in tea is sometimes called theine) – also contains theanine, guarana (caffeine in guarana is sometimes called guaranine), yerba mate (caffeine in yerba mate is sometimes called mateine), cocoa, kola.
2. Most known psychoactive plants: Cannabis: cannabinoids, tobacco: nicotine and beta-carboline alkaloids, coca: cocaine, opium poppy: morphine, codeine and other opiates, salvia divinorum: salvinorin A, khat: cathine and cathinone, kava: kavalactones, nutmeg: myristicin, Solanaceae plants—contain atropine, hyoscyamine and scopolamine, datura, deadly nightshade *Atropa belladonna*, henbane, mandrake (Mandragora) other Solanaceae.
3. Cacti with mescaline: peyote, Peruvian torch cactus, San Pedro cactus.
4. Other plants: kratom: mitragynine, mitraphylline, 7-hydroxymitragynine, raubasine and corynantheidine, **ephedra**: ephedrine damiana, Calea zacatechichi, Silene capensis, **valerian**: valerian (the chemical with the same name), various plants like chacruna, jurema, vilca, and yopo – 5-MeO-DMT, Morning glory and Hawaiian Baby Woodrose – lysergic acid amide (LSA, ergine), Ayahuasca, Tabernanthe iboga ("Iboga")—ibogaine, Areca catechu (betel and paan)—arecoline, **Rauvolfia serpentina**: rauwolscine, **yohimbe** (*Pausinystalia yohimbe*): yohimbine, corynantheidine probably many others.
5. Fungi: psilocybin mushrooms: psilocybin and psilocin, **various Amanita mushrooms**: muscimol, ***Amanita muscaria***: ibotenic acid and muscimol, *Claviceps purpurea* and other **Clavicipitaceae**: ergotamine (not psychoactive itself but used in synthesis of LSD).
6. Psychoactive animals: Hallucinogenic fish, psychoactive toads: bufotenin (5-hydroxy-N,N-dimethyltryptamine), *Bufo alvarius* (Colorado River toad

or Sonoran Desert toad) also contains 5-MeO-DMT (5-methoxy-N,N-dimethyltryptamine).[13]

CONCLUSION

Illegal drugs are drugs which have legal limitations on their ownership or use. They are illegal in certain situations (meaning a person is not allowed to have them). A drug is any chemical that affects the human body or mind when it is swallowed, breathed in, or consumed in another way. A psychoactive drug is a drug that affects the brain. Most laws against drugs are against psychoactive drugs. Some controlled drugs are allowed if you have permission (called a "prescription") from doctor. Other drugs are illegal—meaning you are never allowed to have them. Individual countries and places have different laws about different drugs, and there are also international treaties against some drugs. The most used drugs are not illegal, for example tobacco.

There are many categories (types) of psychoactive drugs. These categories have subcategories (categories within categories). For example, benzodiazepines and opiates are both subcategories of depressants. Some drugs such as ketamine have elements of two categories (hallucinogens and depressants). Every drug is different, so it is important to know the effects of each individual drug, not just the general group.

Hallucinogens: Hallucinogens change the way people see, hear, feel or think. The three main groups of hallucinogens are: psychedelics, dissociatives and deliriants. Each group has different effects. They may cause hallucinations, when a person imagines something that is not really there.

Stimulants: Stimulants speed up the central nervous system. People using stimulants may feel happy and excited, and have more energy, concentration or motivation. Stimulants make it difficult to sleep.

Depressants: Depressants are drugs which slow down the central nervous system. People using depressants may feel happy and content, as well as sleepy and relaxed. Depressants often slow down bodily functions such as breathing and heart rate, and may make it hard to speak (slurred speech) or move properly in large enough doses, in which case they may be harmful.

Anti-psychotics: Antipsychotics are drugs which balance people's moods or stop hallucinations. Many anti-psychotics are legal prescription drug such as anti-depressants (which are used to help to stop people feeling depressed).

People might use drugs as medicine if they are sick and the drugs help make them better. People might also use drugs recreationally (to have fun). These usually are illegal drugs. Some people use drugs to make they more productive or to help themselves stay awake- in this case they would use a stimulant such as amphetamines or caffeine. Some people use drugs for spiritual or religious reasons - some Christians use small doses of wine (alcohol) as part of their religious ceremonies, and members of the Native American Church use Peyote (a type of cactus that contains the drug mescaline). Some Hindus use cannabis (a plant that contains two main chemicals called THC and CBD) as part of their religious rites. Some people also use drugs because they are addicted.

Drugs can have many different effects on a person's health. Some drugs such as tobacco (a plant that contains a drug called nicotine) and alcohol directly cause hundreds of thousands of people to die every year. Other drugs such as cannabis or psilocybin mushrooms (sometimes called "magic mushrooms") cause no deaths. However even if a drug doesn't cause any deaths directly, there are other health effects to be aware of. Someone who has taken a drug and is experiencing its effects is said to be "intoxicated". People who are intoxicated may do things they otherwise would not do, and they may be unable to safely drive or operate machinery. If an intoxicated person does drive a car/vehicle or operate machinery it may cause accidents, depending on how much of the drug they have had and how affected they are.

Overdosing is when a person takes too much of a drug at once and it becomes very dangerous for their health - they might even die. Some drugs (such as heroin, alcohol and aspirin) are easy to overdose on, while others are nearly impossible to overdose on (LSD, cannabis). Many drugs can cause long term health effects separate from just their short term effects, for instance smoking tobacco can cause cancer, and abusing alcohol can cause liver damage. Many drugs are used as medicine to help make sick people better. For instance opiates (like morphine, heroin and codeine) are analgesics (pain killers). Nitrous oxide and ketamine are used as anaesthetics to put people and animals to sleep during a surgical operation. Amphetamines can even be legally prescribed by a doctor for attention disorders in some countries, such as the United States. Using two drugs together can sometimes cause positive or negative reactions (including life-threatening ones). Generally it is best to ask a medical professional such as a doctor before combining two drugs.

Addiction and dependence: Addiction is when a person takes a drug constantly because they think they need it and find it very hard to stop. Dependence is when a person's body adapts to a drug so that the body is more resistant and starts craving the drug all the time - if a dependent person stops taking that drug, they may feel very sick, or rarely, even die without medical help. Addiction and dependence can happen separately to each other, and people can become addicted to things that are not drugs (such as gambling, sex or just about any activity). Addiction and dependence can sometimes make it very hard for a person to live a normal life. Some psychoactive drugs are known to be very addictive (they often cause addiction: such as alcohol, heroin, tobacco, methamphetamine and cocaine) whereas other drugs are

known to be slightly less addictive (such as khat, cannabis and caffeine) or not addictive at all (such as LSD and Psilocybin mushrooms).

Using drugs: Drugs, legal or not, may be taken many ways. Different drugs can be used in different ways, depending on the drug. Some drugs are available in different forms and each form can only be used a certain way - for instance crack cocaine (cocaine in a base form) is more powerful when smoked or vaporized, and powder cocaine (cocaine in a salt form) is usually snorted. Drugs can be taken: Orally - This means they are put into the mouth and swallowed, for instance a pill. Smoked - This means the drug is burned and then the smoke that is produced is inhaled in by the user, for instance through a pipe, bong, cigar or cigarette. Insufflated - This means the drug is snorted up a person's nose. Vaporized - This means a drug is heated up until it turns into a vapour, then the vapour is breathed in. Sublingually - This means the drug is absorbed through the vein under a person's tongue.
Buccally - This means the drug is absorbed through a person's cheek. Intravenous - Also called IV - this means a drug is injected into a person's veins using a needle. Intramuscular - Also called IM - the drug is injected into a person's muscle using a needle. Rectally - This means the drug is put into someone's anus and absorbed there - usually via something called a suppository. Transdermally - A few drugs, such as nicotine and fentanyl, can even be absorbed through a person's skin. Orally is the slowest method of using a drug as it must be digested in the stomach first. Injecting a drug (IV) is the fastest and the most likely to lead to an overdose. It is important to always use clean needles when injecting - injecting with used or dirty needles can spread deadly infections such as Hepatitis C or HIV.
Depending on the drug, smoking can lead to cancer (for instance smoking can cause cancer). Smoking can also sometimes lead to emphysema (a disease of the lungs), depending on what is being smoked. Insufflating a drug can lead to ear, nose and throat conditions depending on the drug being used. Eating a drug can sometimes cause mouth-related problems such as tooth decay.

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