

**WELCOME
TO
OUR PRESENTATION**

Presentation on drug abuse

Presented by-

1. Asraful Islam Rayhan
2. Md. Shafiul Islam
3. Md. Arman Ahmed
4. Md. Suhin Hossain
5. Mohammud Ali

Dept . Of pharmacy,

JESSORE UNIVERSITY OF SCIENCE & TECHNOLOGY.

habits
rehab
TREATMENT
schools
methadone
smoking
ALCOHOL
depression
injection
USERS
HEROIN
DRUG
HIGH
issue
USE
MARIJUANA
suicide
PROBLEMS
HEALTH
mental
ABUSE
BODY
dangerous
medicine
effects
need
DRUGS
SCHOOL
patients
addiction
providers
substance
OVERDOSE
emergency room

Overview

- **What is drug abuse ?**
- **Physical & mental dependence,**
- **Cause of drug abuse,**
- **Route of administration,**
- **Sign & symptoms of drug abuse,**
- **How drug addiction occur,**
- **Categories of drug abuse,**
- **Various types of abused drug , their side effect & mechanism of action,**
- **Prevention & control of drug abuse.**



What is drug?

A drug is any substance that, when absorbed into the body of a living organism, alters normal bodily function. Drugs are chemicals that change the way a person's body works by altering emotions and thoughts.

Drugs have been part of our culture since the middle of last century.



WHAT IS DRUG ABUSE



Drug abuse may be defined as the habitual use of drugs not needed for therapeutic purposes, solely to alter one's mood, affect of state of consciousness, or to affect a body function unnecessarily.

Continued use of drugs can lead to drug dependence, a state of physical & mental dependence.

Commonly abused drugs :

Marijuana, Cocaine, Heroine, Alcohol.

(Sometimes sedatives, coffee and cigarettes can all be used to harmful excess.)

Sign & Symptoms of drug abuse

✓ Physical warning :

- Bloodshot eyes,
- Pupils larger or smaller than usual,
- Changes in appetite or sleep patterns,
- Sudden weight loss or weight gain,
- Deterioration of physical appearance,
- Unusual smells on breath,
- Impaired coordination.

✓ Behavioral warning :

- Poor work,
- Decline in performance,
- Financial Problems,
- Secretive behaviors,
- Sudden change in friends and associates,
- Accident or trouble prone,
- Lack of motivation and withdrawn,
- Unexplained anxiety.



Effects of drug abuse:

Drug abuse leads to:

- Loss of coordination
- Poor judgment
- Slowed reflexes
- Distorted vision
- Memory loss



Age based statistics

Almost 5.8% of the adult population

Nearly 25% of youth population



The Progression of Drug Abuse



MAJOR PROBLEMS

Drugs

Drug Abuse

Drug Dependence

**Physical
dependence**

**Mental
dependence**



Physical & Mental Dependence

In **physical dependence**, the body has been altered in ways that create cravings for the drug & manifests withdrawal symptoms.

In **mental dependence** individual believes that optimal state of well being is achieved only through action of drug .



Causes of Drug Abuse

- Unemployment
- Financial Burdens
- Socio-civilization culture
- Curiosity/ Experimentation
- Peer pressure
- Addiction
- Sexual Involvement
- Failure in exam
- Break- up Relationship
- Depression
- Illegal Relationship
- Others.....



Route of Administration

Oral



Snorting



Injection



Smoking



Categories of drug of abuse

Narcotics

Hallucinogens

Depressants

Stimulants





Cocaine



Nicotine

STIMULANTS



Amphetamine

Stimulants

Stimulants are drugs that

- > stimulate the brain and the central nervous system
- > increase the state of mental alertness
- > decrease appetite

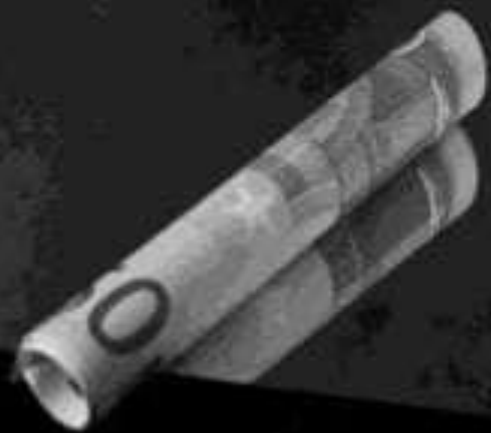
- A) Amphetamines
- B) Cocaine
- C) Nicotine

Effects of Stimulants

- Wakefulness
- Alertness
- Increased energy
- Restlessness
- Euphoria
- Confusion
- Reduced appetite, increased talkativeness
- Increased breathing and heart rate
- Elevated blood pressure



COOLIDGE



Cocaine

(*Erythroxylon coca* , local anesthetic & CNS stimulant)

Street name : Crack, Snow , Star dust, Charlie, Nose candy .



Sign & symptoms of cocaine abuse :

- Increase agitation .
- Disinhibition
- Change in concentration & focus .
- Common cold like symptoms .
- Increase movement .

Side effects of chronic use of Cocaine

Brain:

- Increased risk of strokes
- Reduced attention
- Insatiable hunger
- Insomnia/Hypersomnia
- Lethargy

Systemic:

- Fever
- Eosinophilia

Nose:

- Rhinorrhea (discharge)

Throat:

- Soreness
- Hoarse voice

Teeth:

- Bruxism (abrasion)

Lungs:

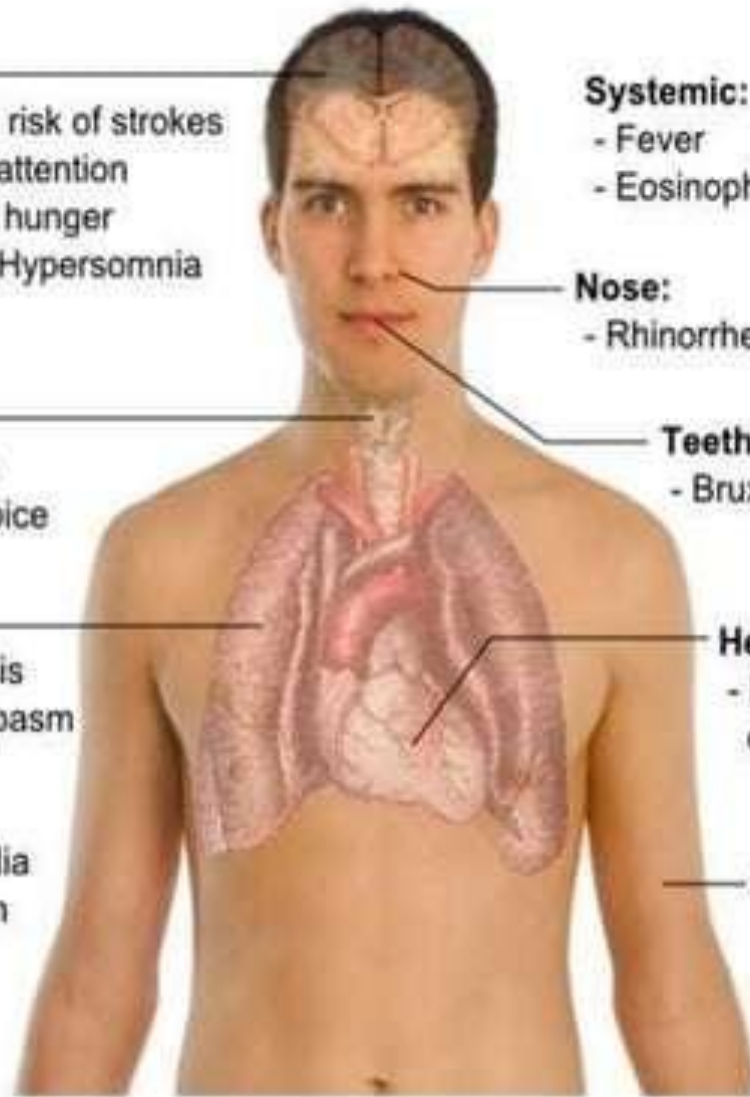
- Hemoptysis
- Bronchospasm
- Dyspnea
- Infiltrates
- Eosinophilia
- Chest pain
- Asthma

Heart:

- Increased risk of infarction

Skin:

- Pruritus



COCAINE

↑ Sympathetic output
↑ catecholamines

↓ Na transport
Local anesthetic effect

↑ Heart rate
↑ Blood pressure
↑ Contractility

Coronary spasm /
vasoconstriction
↑ Platelet adherence /
thrombus

↑ O₂ demand

↓ O₂ supply

Ischemia

↓ LV function

Arrhythmia
QRS prolongation
QT prolongation

Infarction

DEATH

Heroin

- *Most infamous product of opium poppy*
- Current resurgence in use: white powder & black tar heroin
- High purity and skyrocketing profits
- *Cheaper than "Oxy" and other pain meds*





NICOTINE



Nicotine

(*Nicotiana tabacum*, most addictive drug, potent parasympathomimetic stimulant)



How is nicotine addictive :

Over time, nicotine affects the neurotransmitter in the brain changing the way certain brain cells work.

When one stops using nicotine the changes remains for a while until the brain can revert back to normal state.

These change are what cause the withdrawal symptoms characteristics of addiction.

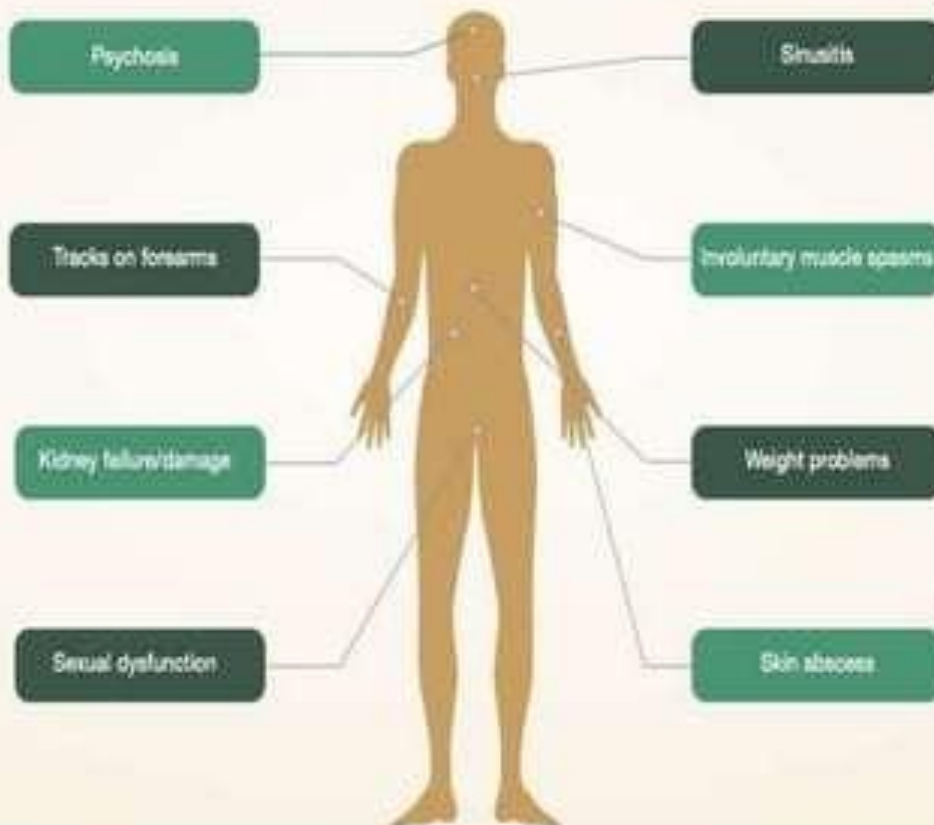


Amphetamine

(Potent CNS stimulant, phenyl amine derivative, used in attention deficit hyperactivity disorder, Street name: Black beauties, co-pilots, crystal meth, heart)

Amphetamine Long-Term Effects

Abusing amphetamines over a long period of time can cause many mental and physical problems.



Sign & symptoms of amphetamine abuse :

- Increased body temperature
- Dry mouth
- Increased blood pressure
- Faster breathing
- Decreased appetite
- Euphoria



ALILA MEDICAL MEDIA

www.AlilaMedicalMedia.com

A collection of various pills and capsules scattered on a dark surface. The pills are in various colors including purple, yellow, red, orange, blue, white, and green. Some are round, some are oval, and some are capsules. The word "DEPRESSANTS" is overlaid in large white letters on a dark horizontal band across the center of the image.

DEPRESSANTS

Depressant

Depressant is a substance that reduces the normal body activity, function or an instinctive desire such as appetite for food. It is also known as “downers”.

Classification of depressants:

- Alcohol
- Barbiturates
- Cannabis
- Opioids
- Benzodiazepines



Effects of Depressant

- Highly addictive
- Produces sedation,
- Dizziness,
- Hypnosis, anxiety
- Permanently damage the developing fetus



ALCOHOL



Chronic alcohol use may result in:

Memory loss, impaired judgment, headaches, depression, anxiety, blackouts, insomnia

Cancers of the esophagus, mouth, throat

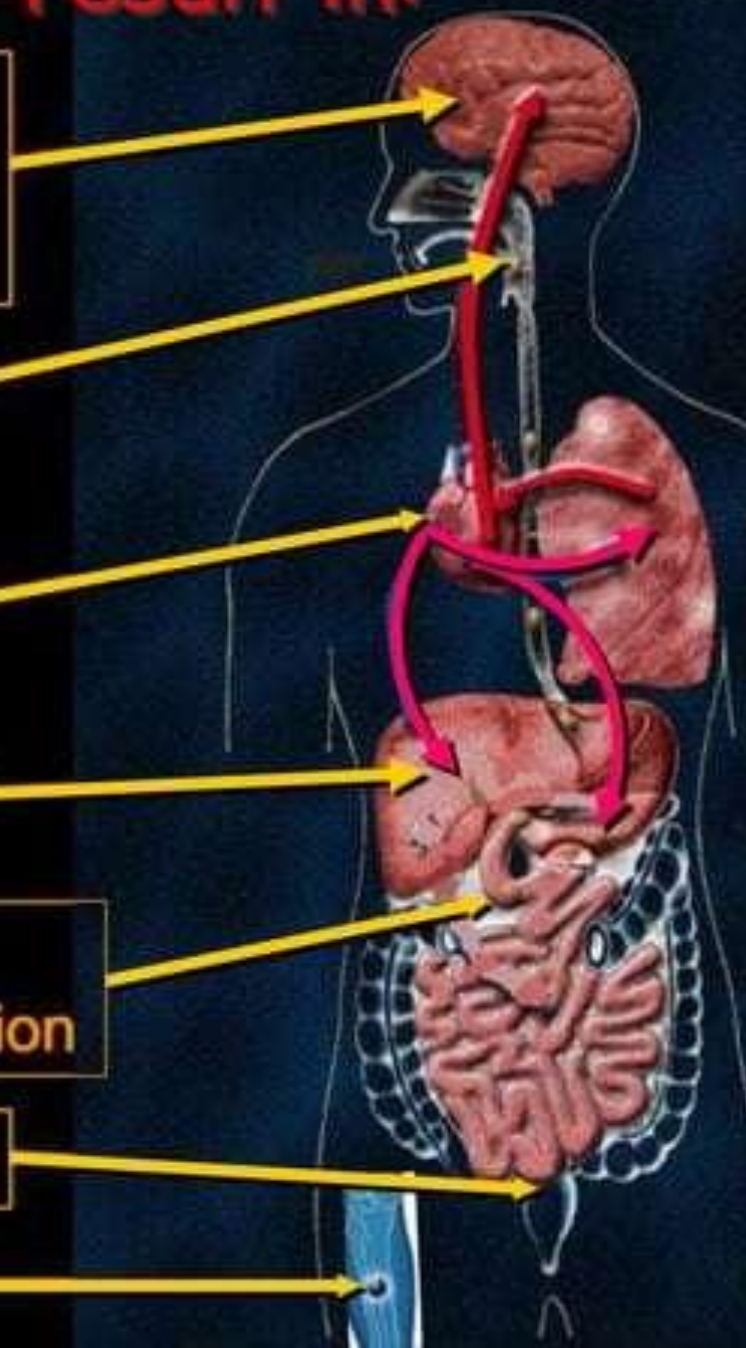
Heart disease, high blood pressure, stroke

Liver disease, liver cancer

Chronic stomach problems, GI bleeding, diarrhea, ulcers, malnutrition

Impotency, reproductive disorders

Muscle damage, osteoporosis



BENZODIAZEPINES

(Anxiolytic drug & have sedative, hypnotic ,anti convulsant properties)

Street name : Benzos, Downers, Goofballs



Effects of benzodiazepines:

Normal therapeutic dose:

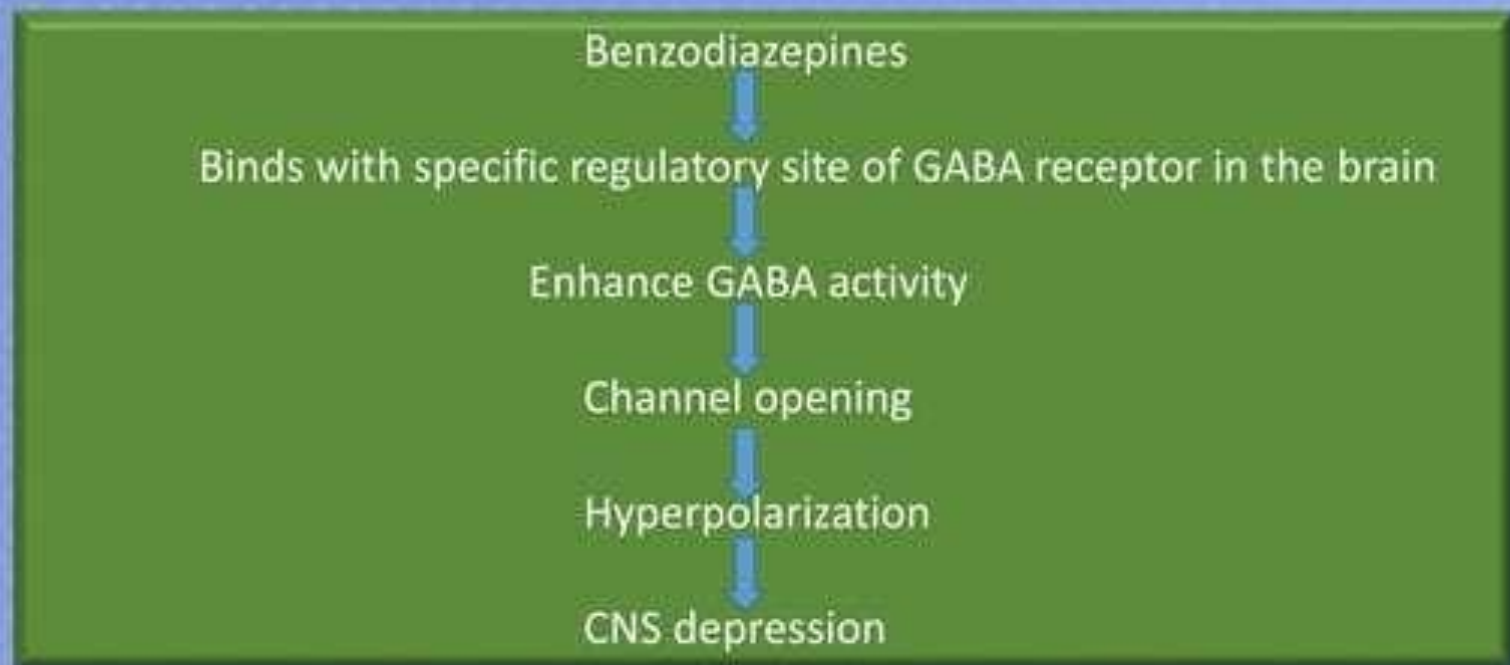
Dry mouth, light headache, confusion.

Acute overdose :

- Prolong sleep.
- Decrease libido.
- Erection problem.



Mechanism of action:



OPIOIDS

(Synthetic & semisynthetic compounds, used as analgesic & suppress diarrhea, cough

Street name : Dope , Painkillers , Oxy)

Effects of opioids :

Common :

- Constipation
- Dry mouth
- Sedation
- Sweats

Less common :

- Delirium
- Seizures
- Urinary retention
- Hallucinations



Morphine

(Analgesic & narcotic drug act on CNS , isolate from crude opium
Street name: Smack, Dragon , H , Dope .

Side Effects of Morphine

If you can't remember much about Morphine...
...think of **MORPHINE** :

Miosis

Out of it (sedation)

Respiratory depression

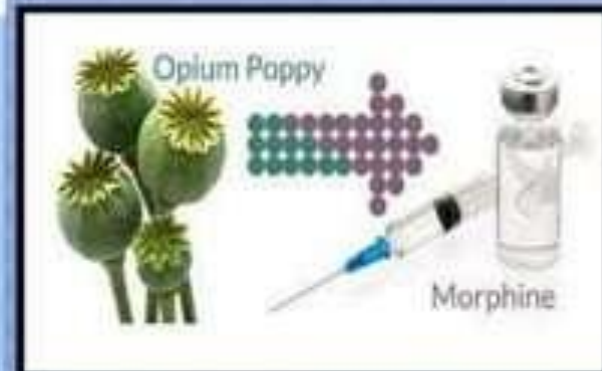
Pneumonia (aspiration)

Hypo-tension

Infrequency (constipation, urinary retention)

Nausea

Emesis

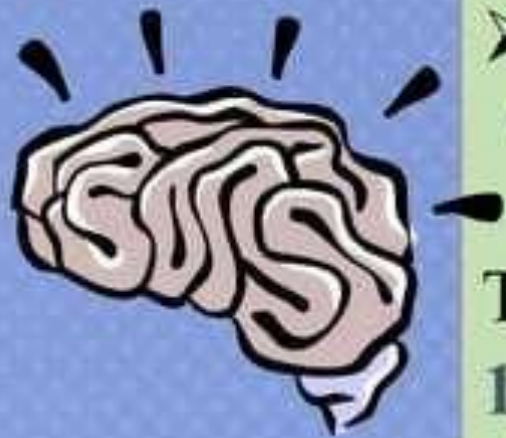


Copyright 2000 Publisher's Group

HALLUCINOGENS

DRUGS THAT CAUSE A PERSON TO SENSE THINGS THAT DON'T ACTUALLY EXIST.

Hallucinogen



Hallucinogens are substances that

- alter sensory processing in the brain,
- causing perceptual disturbances,
- changes in thought processing, and depersonalization.

Types of hallucinogen

1. Psychedelics (Ex: LSD, Peyote, mescaline)

2. Dissociative (Ex: Magic mushroom, ketamin, pcp)

3. Deliriant (Ex: Datura /Jimson Weed)



How Hallucinogens work

Hallucinogens can be used in many different ways. You can take it in a pill form, smoke it, eat it, or drink it. It all depends on the hallucinogen and the way it is formed. Once the hallucinogen is in your body, Chemicals like serotonin and acetylcholine interfere with neurotransmitters and cause hallucinations. A hallucinogen high can last as little as 30 minutes and as long as 4 hours, depending on the hallucinogen you take and the amount you take.



Lysergic acid diethylamide/LSD

(Psychedelic drug ,5HT-agonist,cause hallucination
Street name : Supper man , Dots, Zen , Golden dragon)



Side Effects

Systemic:

- Hypothermia
- Fever

Mouth:

- Saliva production

Jaw:

- Clenching

Blood:

- Elevated sugar levels

Muscles:

- Hyperreflexia
- Tremors
- Weakness

Pupils:

- Dilation

Mucous membranes:

- Mucus production

Skin:

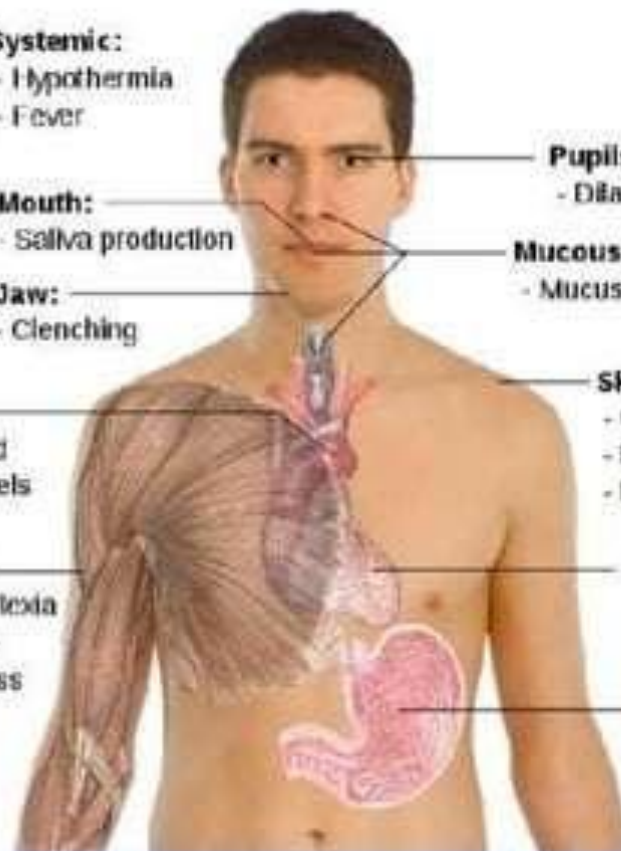
- Goose bumps
- Perspiration
- Paresthesia

Heart:

- Increased heart rate

Gastric:

- Possible nausea



Mechanism of action: LSD

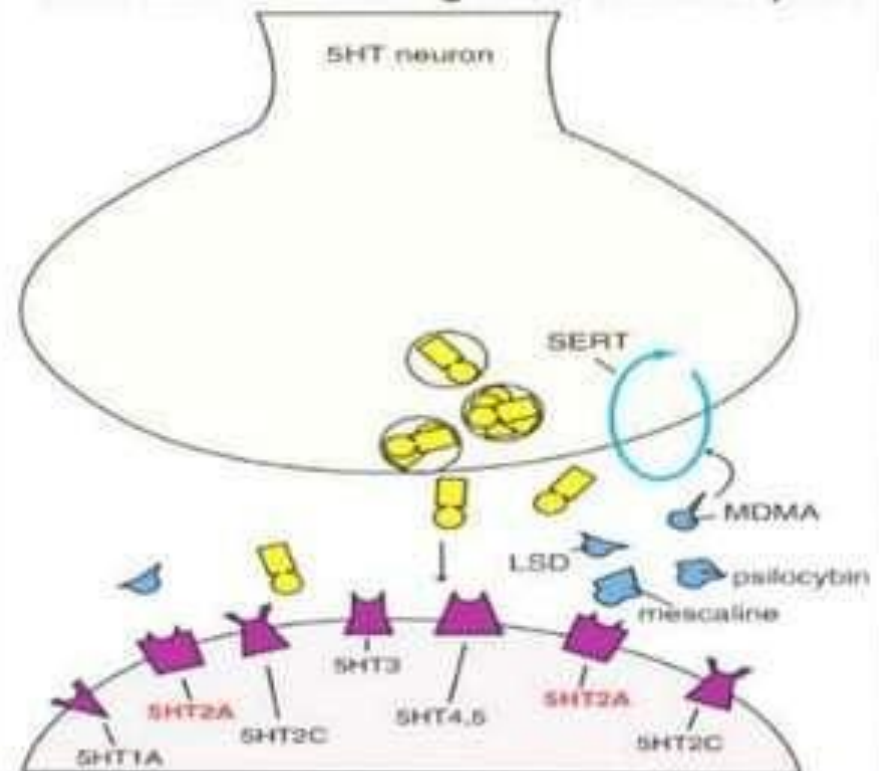


Agonism and/or antagonism at 5-HT receptors subtypes

Lysergic Acid Diethylamide (LSD)

- 5-HT agonist at pre synaptic receptors in CNS
- Activation of Sympathetic NS
- Hallucination with Brilliant Colors
- Mood alteration
- Tolerance & Physical dependence occurs
- No True dependence
- S/E ... Hyper reflexia.
- Nausea, Muscle weakness, Psychotic changes

Mechanism of Hallucinogens at 5HT2A receptors



Marijuana

(*Cannabis sativa* ,delta-9-tetrahydrocannabinol/ THC , common illicit drug . Street name : Ganja, Hashish , Bhang)

Most common

- Dizziness, Dry mouth & Drowsiness
- Lower concentration



Common

- Euphoria , Blurred vision , Red eye , Headache .

Rare

- Anxiety , Ataxia , Tachycardia



Mechanism of action : (Marijuana)



ALILA MEDICAL MEDIA

www.AlilaMedicalMedia.com

Treatment for drug addiction:



- ✓ Hospitalization,
- ✓ Behavioral Therapies,
- ✓ Occupational Therapy,
- ✓ Change in addict's social environment.



Prevention is better than cure

Prevention and Control of Drug Abuse

✓ Requires knowledge of :

- Causes of drug-taking behavior,
- Sources of illicit drugs,
- Drug laws,
- Treatment programs,
- Community organizing skills.

✓ Persistence and cooperation of various individuals and agencies.

Elements of Prevention

- Education,
- Treatment,
- Public policy,
- Law enforcement.



- ✓ **Education and treatment goals same:**
Reduce demand for drugs
- ✓ **Public policy and law enforcement goals same:**
Reduce supply and availability of drugs.



References

- 1) <https://www.drugabuse.gov/publications/drugfacts/marijuana>
- 2) <https://en.wikipedia.org/wiki/Cocaine>
- 3) www.drugfree.org
- 4) www.marijuana/drug/controlled.com
- 5) www.projectalert.com
- 6) www.theantidrug.com



THANK YOU

