

# Drug use and abuse

Mustapha Mneimne, MD. ABS.FACS.MBA

General & colorectal surgery

-BHLT-LAU-2012-2013

# Outline

- Drugs: generalities
- Usage of drugs
- Drug abuse and addiction
- Common abused drugs

# Drugs -Generalities

- Drugs are usually classified according to the particular physiological system on which they exert a primary effect (central nervous system, gastrointestinal system, etc..)
- or by the principal physiologic effect they produce (lower blood pressure, relieve pain, stop cough, etc...).

# Drugs -Generalities

- Antibiotics, analgesics, antidepressants ,etc..
- **OTC**: Over The counter drugs = *access without prescription.*

Ex: Panadol, Advil,

# Route of administration

Drugs can be taken as:

- *Oral*= tablets, drops or syrup
- *Injections*: Intravenously, Intramuscular
- *Suppository*: rectal, vaginal
- *Locally applied*: Creams or lotions
- *Inhaled*: puffs

# Drugs: cont'd

- **Interaction of Drugs:** Food and alcohol affect the absorption and efficacy of drugs. Also drug –drug interaction: sedatives and antihistamines
- **Drug dependence** This refers to the continuous need of the body of the drug. The person would not be able to perform unless he receives the drug.
- **Drug Tolerance** This occurs when the continuous use of a drug in a certain amount does not produce the desired effect; and higher doses are needed to establish the same effect.
- **Drug abuse:** *Referred to uncontrolled use of drugs.*

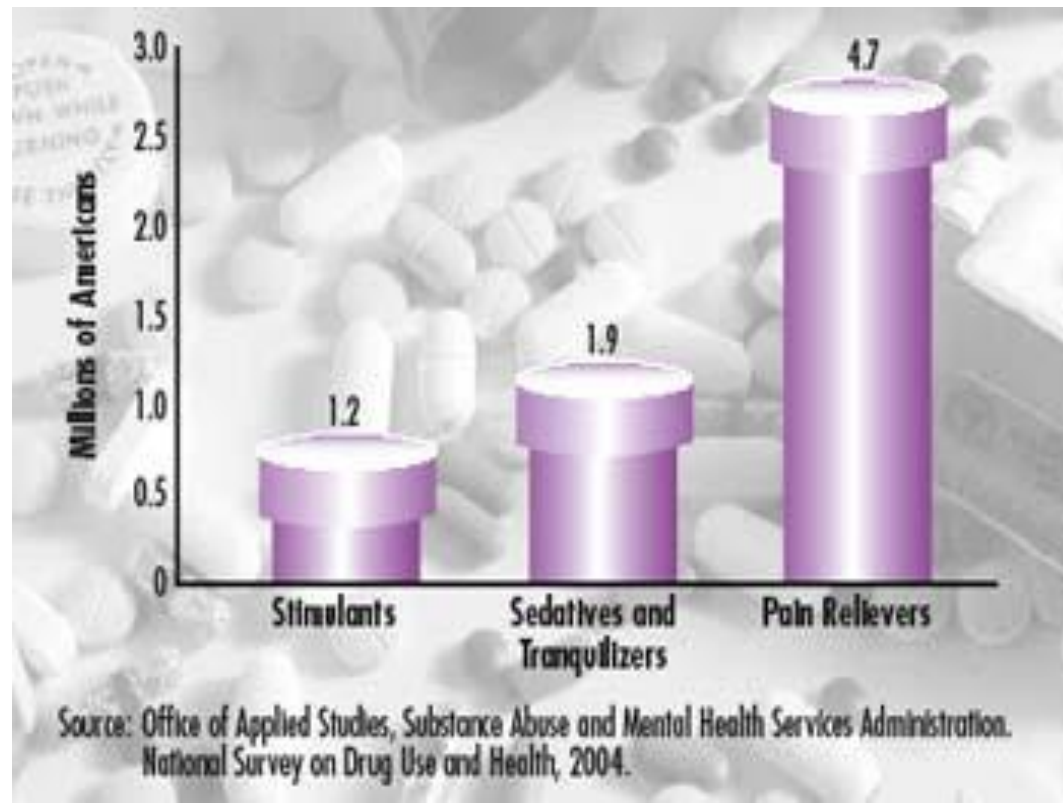
# What types of prescription drugs are misused or abused?

Three types of drugs are misused or abused most often:

- **Opioids**—prescribed for pain relief
- **CNS depressants**—barbiturates and benzodiazepines prescribed for anxiety or sleep problems (sedatives or tranquilizers)
- **Stimulants**—prescribed for attention-deficit hyperactivity disorder (ADHD), the sleep disorder narcolepsy, or obesity.

# Facts About Prescription Drug Abuse

- In 2003, approximately 15 million Americans reported using a prescription drug for nonmedical reasons at least once during the year.





# Common substances Abused

(Nonprescription drugs)

- **Depressants:** Opiates, heroin
- **Stimulants:** cocaine, amphetamines, caffeine, and nicotine:
- **Mind affecting:** Marijuana, LSD, MDMA
- **Other drugs:** bezexol, capthagon...

# Heroin

- **Brief Description:**  
An addictive drug that is processed from morphine and usually appears as a white or brown powder.  
Very powerful addictive drug
- **Street Names:** Smack, H, ska, junk, and many others.
- **Effects:** Short-term effects include a surge of euphoria followed by alternately wakeful and drowsy states and cloudy mental functioning.

# Heroin

- **Death due to overdose may be the result of respiratory depression.**
- Social consequences of heroin addiction include crime, interruption of employment, and personal and family neglect.
- When the addicts supply of heroin is exhausted, ***violence may be resorted to in order to obtain the drug.***
- **HIV and Hepatitis B can be acquired through injections.**

# Signs of heroin addiction

- Red eyes
- Lacrimation
- Anxiety
- Drowsiness
- Constricted pupils
- Agitation
  
- **Tx of addiction: Morphine derivatives**

# Cocaine

- **Brief Description:** A powerfully addictive drug that is snorted, sniffed, injected, or smoked. **Crack** is cocaine that has been processed from cocaine hydrochloride to a free base for smoking.
- **Street Names:** Coke, snow, flake, blow, and many others.
- **Effects:** cocaine usually makes the user feel euphoric and energetic. Large amounts can cause bizarre and violent behavior. **In rare cases, sudden death can occur on the first use of cocaine or unexpectedly thereafter.**

# Cocaine

- **One of the most expensive drugs, found in leaves of cocoa plant.**
- Neither physical dependence nor tolerance is usually known to develop to the prolonged use of cocaine.
- Euphoric excitement is rapidly produced when cocaine is sniffed. Capabilities are overestimated and strong sexual desire is often overused.

# Cocaine

- After injection, spontaneous ejaculation in the absence of genital stimulation has been reported.
- Symptoms of cocaine toxicity include visual, auditory and tactile hallucinations and paranoid delusions.
- **High cocaine doses lead to increased heart beats, irregular respiration, abdominal pain, vomiting and seizures.**
- Death may result from respiratory failure.

# What is hashish?

- **Hashish** (more commonly called hash) is a potent form of cannabis produced by collecting and processing the most potent material that **female marijuana** plants, naturally generate as part of their growth cycle.



# Marijuana

- **Brief Description:**
- a cheaper and less potent cannabis product, is the dried flower tops from female cannabis plants  
The most commonly used illegal drug in the U.S.
- **Street Names:** Pot, ganga, weed, grass, and many others.
- **Effects:** Short-term effects include memory and learning problems, distorted perception, and difficulty thinking and solving problems.

# Marijuana

- can be smoked. chewed or drunk by users.  
**Marijuana induces a dreamy state with altered consciousness, with feeling of detachment.**
- It is better enjoyed with a company where it leads to a tendency towards laughter. Libido is variably affected; **since sexual desire may be enhanced, marijuana is considered to be an aphrodisiac.**
- Appetite and appreciation of food are also enhanced, along with weight gain.

- The report also shows that cannabis remains the world's most widely produced and used illicit substance – grown in almost all countries, and smoked by 130 to 190 million people at least once a year.
- The [World Drug Report 2010](#), launched today by the UN Office on Drugs and Crime ([UNODC](#)), says that the number of users of synthetic drugs – estimated at around 30 to 40 million people worldwide – will soon exceed the number of users of opiates and cocaine combined.

# LSD (Acid)

- **Brief Description:**

One of the strongest mood-changing drugs. It is sold as tablets, capsules, liquid, or on absorbent paper.

- **Street Names:** Acid, blotter, and many others.

- **Effects:** Unpredictable psychological effects. With large enough doses, users experience delusions and visual hallucinations. Physical effects include increased body temperature, heart rate, and blood pressure; sleeplessness; and loss of appetite.

# LSD

cont'd

- Lysergic acid diethylamide was first made in Switzerland in 1938.
- Using LSD is described like "taking a trip". It is frequently called a mind expanding drug, but it actually decreases the ability to see and understand the real world.
- The nature of the trip is not predictable.

# Club Drugs

- MDMA (ecstasy), Rohypnol, GHB, and ketamine
- are among the drugs used by teens and young adults who are part of a nightclub, bar, rave, or trance scene.
- Available and cheap relatively

# MDMA (Ecstasy):

Club drugs

- **Brief Description:** MDMA(3-4 methylenedioxy methamphetamine)
- is a synthetic, psychoactive drug chemically similar to the stimulant methamphetamine .

**A drug that has stimulant and psychedelic properties.  
It is taken orally as a capsule or tablet.**

- **Street Names:** XTC, X, Adam, hug, beans, love drug.
- **Effects:** Short-term effects include feelings of mental stimulation, emotional warmth, enhanced sensory perception, and increased physical energy. Adverse health effects can include nausea, chills, sweating, teeth clenching, muscle cramping, and blurred vision.

# GHB: liquid Ecstasy

- The colourless, odourless drug, has been linked to **date-rape cases** where women have been sedated before being sexually assaulted.
- A few drops of gamma hydroxybutate (GHB) slipped into a drink can cause unconsciousness within 20 minutes and victims will often have no memory of what has happened.
- GHB affects self-control. It takes effect 10-20 minutes after it is ingested and its effects typically last up to four hours.



# GHB: Liquid ecstasy

- It also induces a state of emotional warmth making the person in need for physical touch.
- Its effect on sexual pleasure is variable.
- Since it induces loss of memory ,its unlikely for a victim to recall or identify her attacker.

# Methamphetamine

- **Brief Description:**
- An addictive stimulant that is closely related to amphetamine, but has longer lasting and more toxic effects on the central nervous system. It has a high potential for abuse and addiction.
- **Street Names:** Speed, **meth**, chalk, ice, crystal, glass.

# Effects of Methamphetamine

- Meth releases a surge of dopamine, causing an intense rush of pleasure or prolonged sense of euphoria.
- Over time, meth destroys dopamine receptors, making it impossible to feel pleasure.
- Although these pleasure centers can heal over time, research suggests that damage to users' cognitive abilities may be permanent.
- Chronic abuse can lead to psychotic behavior, including paranoia, insomnia, anxiety, extreme aggression, delusions and hallucinations, and even death.

# For example,

- in lab experiments done on animals, sex causes dopamine levels to jump from 100 to 200 units, and cocaine causes them to spike to 350 units. “
- methamphetamine causes a release from the base level to about 1,250 units, something that's about 12 times as much of a release of dopamine released from food and sex and other pleasurable activities,
- This really doesn't occur from any normally rewarding activity.
- That's one of the reasons why people, when they take methamphetamine, report having this euphoric [feeling] that's unlike anything they've ever experienced.
- **when the drug wears off, users experience profound depression and feel the need to keep taking the drug to avoid the crash.**

# Bad effects of the Meth

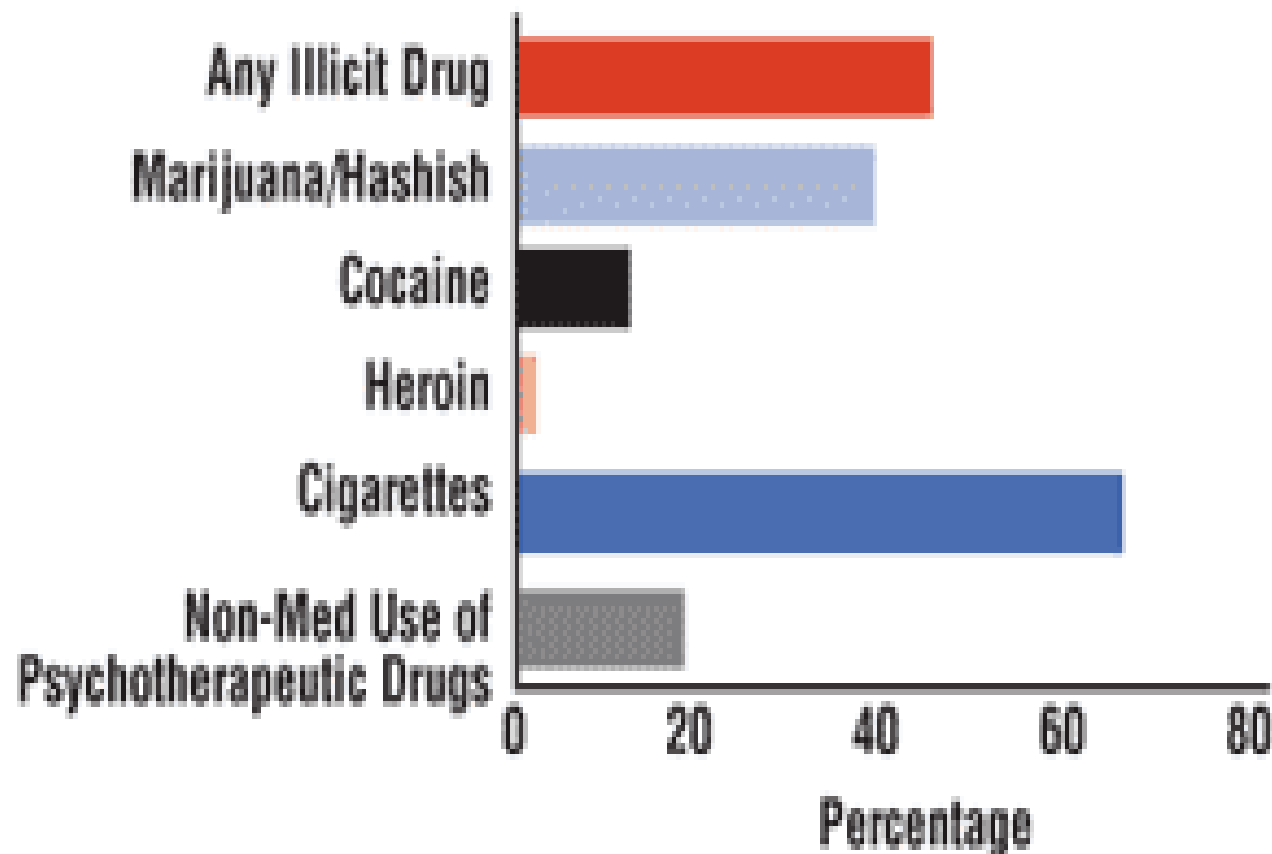




# PCP/Phencyclidine

- **Brief Description:** Illegally manufactured in labs and sold as tablets, capsules, or colored powder. It can be snorted, smoked, or eaten.
- Developed in the 1950s as an IV anesthetic, PCP was never approved for human use because of problems during clinical studies, including intensely negative psychological effects.
- **Street Names:** Angel dust, ozone, wack, rocket fuel, and many others.
- **Effects:** unpleasant psychological effects. In a hospital or detention setting, people high on PCP often become violent or suicidal.

## U.S. Population (Aged 12 and Over) Who Have Ever Used Illicit Drugs, Cigarettes, or Prescription Drugs for Non-Medical Purposes



Source: SAMHSA, National Survey on Drug Use and Health, 2005.



Other drugs:

# Benzhexol

- Benzhexol is an Antimuscarinic medication. It is also called Trihexyphenidyl.
- It is prescribed for Parkinson's disease. Main side effects are nausea, dry mouth and constipation.
- is *abused* due to a short acting mood-elevating and euphoric *effect*.

# Other drugs :Captagon

- Fenethylline, also spelled phenethylline, is a synthetic prodrug used as a stimulant and marketed under the brand name Captagon.
- Captagon contains the active ingredient Fenethylline, which is metabolized in the body to Amphetamine and Theophylline, therefore
- it works like the **Amphetamine stimulants** that are normally used to treat conditions such as ADHD (attention deficit hyperactivity disorder) and Narcolepsy.

# HISTORY AND MILESTONES Of Narcotics in Lebanon

- **1947** : Antinarcotic legislation
- **1975** : Beginning of lebanese war; increase of illicit cultivation and increase of substance **abuse** among militias
- **1990** : End of war; decision of lebanese government to eradicate illicit cultivations.
- **1998** : Amendment of 1947 law
- **1999** : Ecstasy introduced to **lebanon**
- **2002** : Application of the law concerning BZD
- **2011** : **No drugs should be dispensed without prescription.(Compliance is a problem).**

# Drug Addiction

- Young people of high school age and colleges are the primary target of drug addiction.
- Curiosity, a sense of rebellion against established authority,
- a desire to improve social relations, to find the "meaning of life", to be one of the group and to run away from reality and stress are some causes behind drug addiction.

# ***What is drug addiction?***

- *Addiction is a chronic, often relapsing brain disease that causes compulsive drug seeking and use despite harmful consequences to the individual that is addicted and to those around him.*
- **Drug addiction is a brain disease because the abuse of drugs leads to changes in the structure and function of the brain.**

*Why do some people become addicted and others do not?*

***Genetic and environmental Factors***

- Peer pressure, physical and sexual abuse,
- stress, and parental involvement.

# Principles of Drug Addiction Treatment

Multidisciplinary approach:

- Social workers
- Psychiatric specialist
- Medical professionals
- Rehabilitation programs
- Community, family support

# Concluding Remarks

- **It is Not worth trying**
- Drugs destroy persons and the community
- **Strictly prohibited by law in Lebanon**

Users- Traffickers, sellers, distributors, etc

**Penalty:** Jail-days to many years

- If you are a drug abuser of any type:

**We are here to help You**





# References

1. [www.nida.nih.gov](http://www.nida.nih.gov)
2. [www.drugabuse.gov](http://www.drugabuse.gov)
3. **National Institute On Drug Abuse: NIDA-USA**
4. *National Survey on Drug Use and Health*
5. *WHO*
6. *JAD*