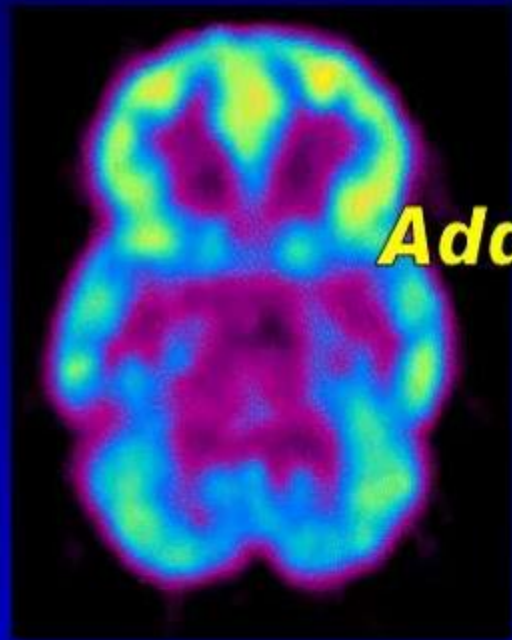




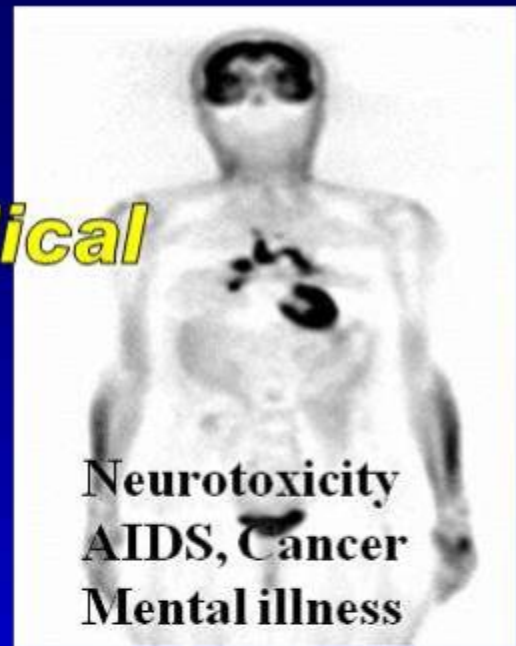
Drug addiction and drug abuse

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Addiction



Medical

**Neurotoxicity
AIDS, Cancer
Mental illness**



Social

**Homelessness
Crime
Violence**

DRUGS



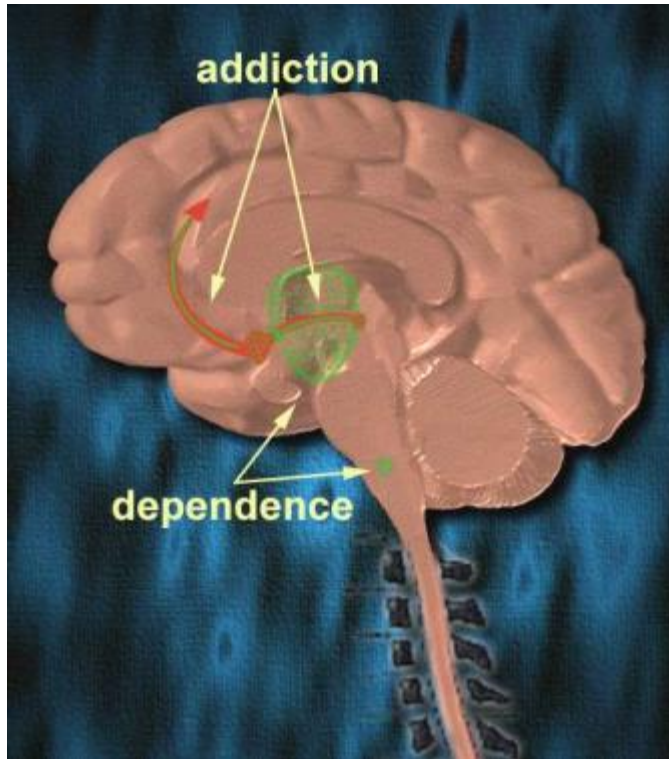
Economic

**Health care
Productivity
Accidents**

Drug addiction and drug abuse

- Drug addiction and drug abuse, chronic or habitual use of any chemical substance to alter states of body or mind for other than medically warranted purposes.
 - physical dependence
 - withdrawal
- Addiction: Compulsive nature of the drug use despite physical and/or psychological harm to the user and society and includes both **licit and illicit drugs**.
- Substance abuse: Frequently used broad range of substances (including alcohol and inhalants) that can fit the addictive profile.

Drug addiction and drug abuse



- Dependence:

- Psychological dependence is the subjective feeling that the user needs the drug to maintain a feeling of well-being. Eg: cocaine
- Physical dependence is characterized by tolerance (the need for increasingly larger doses in order to achieve the initial effect) and withdrawal symptoms when the user is abstinent.

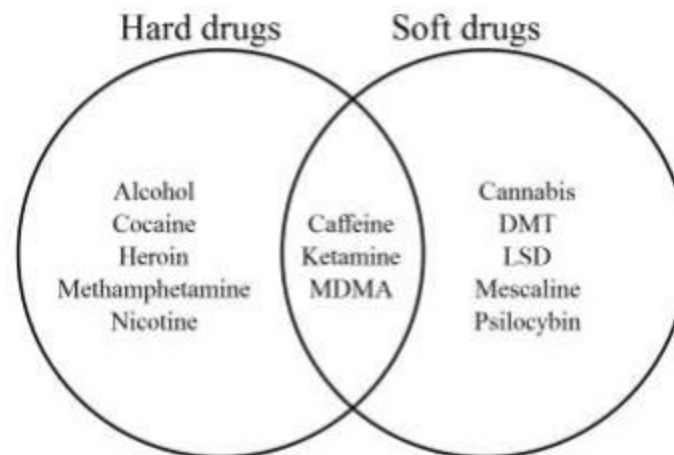
- addiction to morphine (reward pathway)
- dependence to morphine (thalamus and brainstem)

Drug use terms and descriptions

- **Drug:** In medicine, it refers to any substance with the potential to prevent or cure disease or enhance physical or mental well-being. In pharmacology, drug refers to any agent that alters the biochemical or physiological processes of tissue or organism.
- **Street drug:** Drug that is taken for non-medicinal reasons (usually for mind-altering effects); drug abuse can lead to physical and mental damage and (with some substances) dependence and addiction. Eg: Alcohol, heroin, methamphetamine, crack, cocaine and marijuana (Cannabis).
- Street drugs: <http://www.streetdrugs.org>

Drug use terms and descriptions

- **Hard drug** (lead to severe physical addiction):
 - Drug that is generally considered to be more dangerous, with a higher risk of dependence than soft drugs. Eg.: Heroin, methamphetamine, cocaine.
- **Soft drug** (do not cause physical addiction):
 - While they do not cause physical addiction, some of them may still lead to psychological dependency. Psychological dependency is a dependency of the mind. This means that people feel better when they have the drug. Eg: lysergic acid diethylamide (LSD), Cannabis



Drug use terms and descriptions

- **Illicit drug:** AN illegal drug, can't prescribed. Eg.: Cocaine, heroin, LSD, marijuana.
- **Designer drug:** A synthetic drug very similar in chemical makeup to an existing drug and thus exerting similar.
- **Club drug:** A drug whose use primarily occurs in clubs, bars and trance parties. E.g: Rohypnol, ketamine.
(<http://www.clubdrugs.org/>)
- **Recreational drugs:**
 - Recreational drugs are those used for non medicinal purposes, in particular, for fun or leisure.
 - Eg.: methamphetamine (potent psychostimulant of the phenethylamine), that is used to treat attention deficit hyperactivity disorder (ADHD), drive long distances and obesity

Drug use terms and descriptions

- Adulterants: drugs that are added to mimic or enhance the effects of the drug being offered. Example, sometimes amphetamines have been cut with caffeine or ephedrine
- Diluents: Compounds such as sugars or baking soda that are used to increase the bulk of the drug sample.

Types of Abused Substances

- **Legal Substances**

- Legal substances, approved by law for sale over the counter or by doctor's prescription, include caffeine, alcoholic beverages, nicotine, and inhalants (nail polish, glue, inhalers, gasoline).
- Prescription drugs such as **tranquilizers, amphetamines, benzodiazepines, barbiturates, steroids, and analgesics** can be knowingly or unknowingly overprescribed or otherwise used improperly.

Types of Abused Substances

- **Illegal Substances**

- Prescription drugs are considered illegal when diverted from proper use.
- Morphine, and synthetic opiates, such as fentanyl, are most often abused by people in the medical professions, who have easier access to these drugs.
- Other illegal substances include cocaine and crack, marijuana and hashish, heroin, hallucinogenic drugs such as **lysergic acid diethylamide**, **phencycline** or "**angel dust**", "**designer drugs**" such as **MDMA (Ecstasy)**, and "**party drugs**" such as **GHB (gamma hydroxybutyrate)**.

Motivations for Drug Use

- People take drugs for many reasons, and they may take stimulants to keep alert, or cocaine for the feeling of excitement it produces.
 - peer pressure
 - relief of stress
 - increased energy
 - to relax
 - to relieve pain
 - to escape reality
 - to feel more self-esteem, and for recreation.
- Athletes and bodybuilders may take [anabolic steroids](#) to increase muscle mass

Effects of Substance Abuse

- The effects of substance abuse can be on many levels:
 - on the individual,
 - on friends and family,
 - on society.

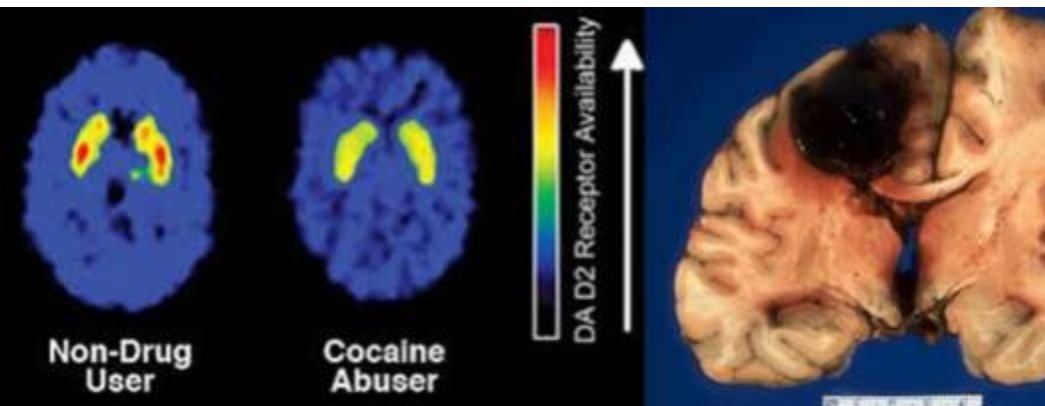


Effects of Substance Abuse- on individual

- Around 10000 death causes by drug abuse in USA every year.
- Many drug users engage in criminal activity, such as burglary and prostitution, to raise the money to buy drugs, and some drugs, especially alcohol, are associated with violent behavior.
- Cocaine: anxiety, fatigue, depression, and an acute desire.
- Marijuana and alcohol interfere with motor control and are factors in many automobile accidents.
- Users of marijuana and hallucinogenic drugs may experience flashbacks, unwanted recurrences of the drug's effects weeks or months after use.

Effects of Substance Abuse- on individual

- Sharing hypodermic needles used to inject some drugs dramatically increases the risk of contracting AIDS and some types of hepatitis.
- Heroin withdrawal can cause vomiting, muscle cramps, convulsions, and delirium.



Effects of Substance Abuse-on friends and family

- Marital problems and poor work performance
- Pregnant drug users, because of the drugs themselves or poor self-care in general, bear a much higher rate of low birth-weight babies than the average.

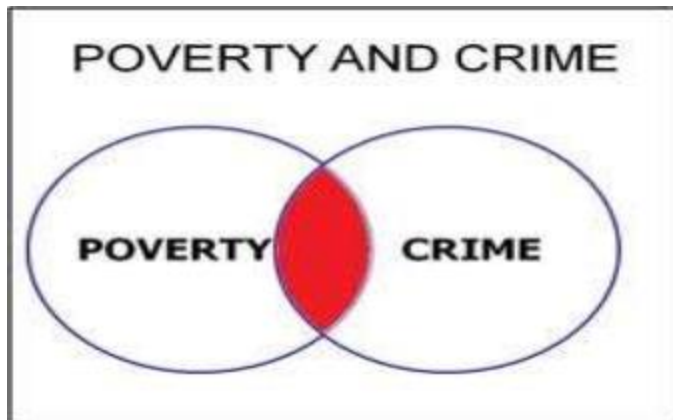


**ALCOHOL AND DRUGS CAN IMPAIR YOUR JUDGMENT
AND AFFECT YOUR ABILITY TO MAKE SAFE CHOICES,
PUTTING YOU AT GREATER RISK FOR HIV.**



Effects of Substance Abuse- on society

- Drug abuse affects society in many ways.
- In the workplace it is costly in terms of lost work time and inefficiency.
- Drug-related crime can disrupt neighborhoods due to violence among drug dealers, threats to residents, and the crimes of the addicts themselves.
- Half of the highway deaths in the United States involve alcohol.



Estimated Economic Cost to Society Due to Substance Abuse and Addiction:

Illegal drugs:	\$181 billion/year
Alcohol:	\$185 billion/year
Tobacco:	\$193 billion/year
Total:	\$559 billion/year

Symptoms

- Recurrent drug use may result in a **failure to fulfill major role obligations at work, school, or home**.
- Repeated absences, tardiness, poor performance, suspensions, or neglect of duties in major life domains suggests drug abuse.
- Recurrent drug use in situations in which it is **physically hazardous is a sign of abuse**.
- Operating machinery, driving a car, swimming, or walking in a dangerous area while under the influence indicates drug abuse.
- Recurrent **drug-related legal problems**, such as arrests for disorderly conduct or for driving under the influence, are indicative of abuse.
- Recurrent use despite having persistent or **recurrent social or interpersonal problems**, caused or exacerbated by the effects of the drug, is indicative of abuse.

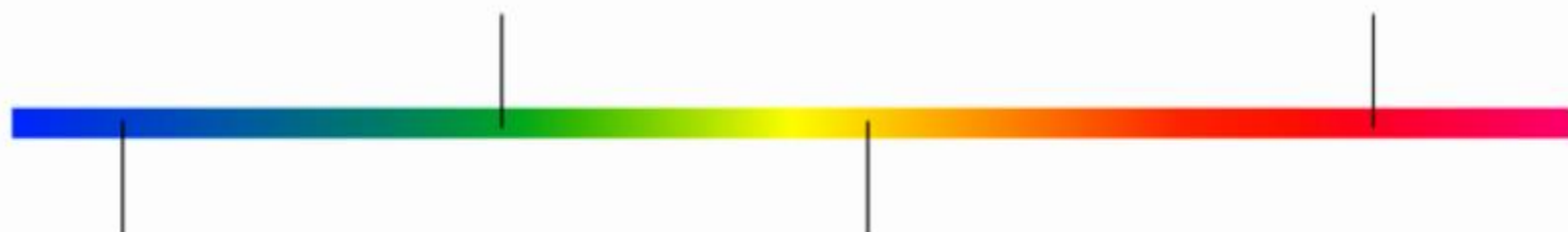
Spectrum of Psychoactive Substance Use

Casual/Non-problematic Use

- recreational, casual or other use that has negligible health or social effects

Chronic Dependence

- Use that has become habitual and compulsive despite negative health and social effects



Beneficial Use

- use that has positive health, spiritual or social impact:
- e.g. medical pharmaceuticals; coffee/tea to increase alertness; moderate consumption of red wine; sacramental use of ayahuasca or peyote

Problematic Use

- use that begins to have negative consequences for individual, friends/family, or society
- e.g. impaired driving; binge consumption; harmful routes of administration

Treatment

- *Treatment of substance abusers depends upon the severity and nature of the addiction, motivation, and the availability of services.*
- *Pharmacological treatment*
- *Fighting Substance Abuse*
- *Supply Reduction*
- *Reduction demand for drugs*
- *Legalization and decriminalization*



Multidimensional approaches to addiction treatment are the most

SUCCESSFUL

Treatment-Pharmacotherapy

- Both pharmacological and behavioral treatments are used, often augmented by educational and vocational services. Treatment may include detoxification, therapy, and support groups, such as the 12-step groups Alcoholics Anonymous, Narcotics Anonymous, and Cocaine Anonymous.
 - Disulfiram is a medicine used in the treatment of alcoholism.
 - methadone or buprenorphine maintenance programs for heroin addiction.

The main drugs of abuse

Type	Examples	Dependence liability
Narcotic analgesics	Morphine	Very strong
	Diamorphine	Very strong
General CNS depressants	Ethanol	Strong
	Barbiturates	Strong
	Methaqualone	Moderate
	Glutethimide	Moderate
	Anaesthetics	Moderate
	Solvents	Strong

The main drugs of abuse (continued)

Anxiolytic drugs	Benzodiazepines	Moderate
Psychomotor stimulants	Amphetamines	Strong
	Cocaine	Very strong
	Caffeine	Weak
	Nicotine	Very strong
Psychotomimetic agents	LSD	Weak or absent
	Mescaline	Weak or absent
	Phencyclidine	Moderate
	Cannabis	Weak or absent



Thank you