The Use and Abuse of Psychoactive Drugs

Major Psychoactive Drugs

- Opioids
- Central Nervous System Depressants
- Central Nervous System Stimulants
- Marijuana
- Hallucinogens
- Inhalants

Opioids

- Also known as narcotics
- Opioids are natural or synthetic drugs designed to relieve pain, cause drowsiness, and induce euphoria
- Reduce anxiety
- Can be injected, absorbed through the digestive tract, or inhaled
- Abuse often results in dependence
- Example = Heroin

Central Nervous System Depressants

- CNS depressants slow the activity of the CNS
- Effects range from mild sedation to death
- Eg. Alcohol, Barbiturates, & other sedatives
- Barbiturates can be taken orally or injected
  - Eg. Valium & Xanax
  - Usually addiction starts with a prescription

Central Nervous System Stimulants

- Speeds up activity of the nervous system
  - Heart rate increases
  - Blood pressure rises
  - Pupils dilate
  - Blood vessels constrict
  - Wakefulness
- Eg. cocaine, amphetamines, nicotine, ephedrine, & caffeine

Cocaine
• Inhaled or injected for the most intensive effects
• When processed with baking soda and water = crack
• Crack is a ready to smoke form of cocaine
• Cocaine provides immediate, intense, short lived effects including 5 to 20 minutes of euphoria, followed by irritability, anxiety, and depression

Cocaine
• Larger the dose and how rapidly it is absorbed depends on how great the effects
• Sudden death is the most common result of CNS stimulation
  – Convulsions
• Long term use causes paranoia and aggressiveness
• Must be taken frequently to produce desired effects and to counter withdrawal
• Causes very serious pregnancy complications

Amphetamines
• Synthetic chemicals that are CNS stimulants
• Eg. Speed, Crank, Ice
• Small doses increase alertness and decrease fatigue
  – Increase motor activity
  – Suppress the diet
• Abuse leads to bad judgment and sudden exhaustion
• Paranoia and unprovoked violence
• Severe pregnancy complications
• Hazards = malnutrition, weight loss, cardiovascular damage

Other CNS Stimulants
• Ritalin has similar effects of an amphetamine
• Ephedrine has amphetamine qualities
• Caffeine – most popular stimulant
  – Produces alertness
  – High doses – nervousness, irritability, headache, sleeplessness, peptic ulcers, hyperactivity
  – Does produce a dependence
  – Caffeine withdrawal – irritability, headache, or mild depression
Marijuana

- Most widely used drug in the U.S.
- 71 million Americans have tried it
- 30% of college students have used it
- Can be smoked or ingested
- Short term effects
  - Low doses – euphoria, heightened experiences, slowed sense of time, relaxation
  - Moderate doses – impaired memory function, lapses of attention, mind seems separated from the body
  - High doses – change in body image, sensory distortion, anxious, panic
- Long term use
  - Heavy users experience subtle impairments of attention and memory
  - Decreases testosterone levels and sperm count
  - Severe pregnancy complications
- Dependence does not develop in the same manner as with other drugs
- However, marijuana may become the focus of the user’s life to the exclusion of everything else

Hallucinogens

- Drugs that alter the user’s perception of feelings, and thoughts
- Eg. LSD, PCP (Angeldust), Mushrooms
- Effects of Hallucinogens
  - Altered sense of time, visual disturbances, improved hearing, changes in mood, distorted body perception, dilated pupils, dizziness, weakness, nausea
  - Alter the users perceived relationship between self and external reality
- Hallucinogens induce tolerance very quickly
- Hallucinogens do not produce drug-seeking behavior, physical dependence, or withdrawal symptoms
- Users are always subject to a panic reaction or “bad trip”
- Spontaneous flashbacks, perceptual distortions, and bizarre thoughts can occur long after the drug is eliminated from the body

Inhalants

- Inhaling certain chemicals can produce effects ranging from heightened pleasure to delirium
- 3 major groups of inhalants
• Volatile solvents
• Nitrates
• Anesthetics

• Methods of use
  – Sniffing, snorting, bagging, huffing
• Slow bodily functions
• Can lead to loss of consciousness, heart failure, nervous system impairment, hearing loss, damage to the liver, kidney, bone marrow, and death

Psychoactive Drugs
• Those drugs designed to alter:
  – A person’s experiences or consciousness
  – Their short and long-term effects
  – Have a potential for abuse and addiction
• Addictive Behavior – Habits that are out of control and negatively affect a person’s health

Abuse vs. Dependence
• A person may abuse a substance even if he or she is not physically dependent on it

Substance Dependence
• Diagnosed when an individual experiences a cluster of 3 or more of the following symptoms
  – Developing a tolerance to the substance
  – Experiencing withdrawal syndrome
  – Taking the substance in a larger amount or over a longer period than the substance was intended
  – Expressing a persistent desire to cut down substance use
  – Most time is spent getting, using, & recovering
  – Changing things due to substance use
  – Continuing use when knowing that it is a problem

Drug Users
• Risk factors associated with using drugs
  – Age
  – Gender
  – Personality
  – Peer group
  – Family Background
**Characteristics of Non Drug Users**
- High self esteem
- Strong family
- Open communication with parents

**Reasons for Drug Use**
- Curiosity, rebellious, vulnerable
- Appear daring
- Imitate role models
- Experimentation
- Escape boredom
- Psychological problems
- Anxiety

**Risk Factors Associated With Substance Dependence**
- Physical
  - Genetic
  - Prenatal exposure
  - Chronic Pain
- Psychological
  - Need for excitement
  - Immediate gratification
  - Feelings of rejection
  - Depression
  - Blot out emotional pain
  - Mental Illness
- Social risk factors
  - Drug abuse in the family
  - Poverty
  - Peer use
  - Health care professionals

**3 Determinants of How a Drug Will Effect the Body**
- Drug Factors – properties of the drug and how it is used
- User Factors
- Social Factors
**Drug Factors**
- Pharmacological Properties
- Dose-response function
- Time-action function
- Drug-use history
- Method of use

**User Factors**
- Pregnancy
- User expectations
- Body mass
- Biochemical states
- Genetic factors

**Social Factors**
- Setting
- Physical and social environment