MDMA (Ecstasy)
“Researchers that study the brain think that MDMA may affect neurons that use serotonin to communicate with other neurons. The serotonin system plays a direct role in controlling our mood, aggression, sexual activity, sleep, and sensitivity to pain. Another bit of bad news—researchers have seen memory loss among regular users of MDMA.” (“MDMA Ecstasy”)

Tobacco
“Tobacco can be smoked in cigarettes, cigars, or pipes. It can be chewed or, if powdered, sniffed. ‘Bidis’ are an alternative cigarette. They come originally from India and are hand-rolled. In the U.S., bidis are popular with teens because they come in colorful packages with flavor choices. Some teens think that bidis are less harmful than regular cigarettes, but in fact they have more nicotine, which may make people smoke more, giving bidis the potential to be even more harmful than cigarettes. Hookah—or water pipe smoking—practiced for centuries in other countries, has recently become popular among teens as well. Hookah tobacco comes in many flavors, and the pipe is typically passed around in groups. Although many hookah smokers think it is less harmful than smoking cigarettes, water pipe smoking still delivers the addictive drug nicotine and is at least as toxic as cigarette smoking.” (“Tobacco Addiction”)
Chapter 5 - Consciousness

The Big Idea:
- Consciousness includes many states, both waking and altered.

Essential Questions:
1. What is the relationship between drugs and consciousness?
Objectives

- To identify the dangers of depressants, stimulants, and hallucinogens.
- To explain how depressants, stimulants, and hallucinogens affect consciousness.
- To identify one drug’s effects.
- To identify formulate why you think one drug is or should be legally controlled.
Agenda

- **Section 4:** Drugs and Consciousness
- To prepare for class on Thursday, 5/31:
  - Nothing?
Depressants: Alcohol - cont

- NPR Article: Alcohol More Dangerous Than Heroin, Study Finds
Depressants

- slow the activity of the nervous system and give people a sense of relaxation but can have negative effects
  - Alcohol
  - Narcotics
    - Barbiturates (sleeping pills, sedatives, hypnotics)
    - Opiates (made from natural alkaloids of opium)
    - Opiates (made from synthetic derivatives of morphine)
Depressants: Narcotics

- Addictive depressants that have been used to relieve pain and induce sleep and can give the user a feeling of pleasure
  - Barbiturates (sleeping pills, sedatives, hypnotics)
    - Amobarbital, Pentobarbital, Secobarbital, Phenobarbital
  - Opiates (made from natural alkaloids of opium)
    - Morphine, codeine
  - Opiates (made from synthetic derivatives of morphine)
    - Heroin, methadone
Depressants: Narcotics - cont

- **Morphine**
  - Used during Civil War to deaden pain from wounds
  - “The Soldier's Disease”

- Real Stories: Prescription Narcotics
Depressants: Narcotics - Heroin

- **Real Stories: Heroin**
  - Introduced in 1800’s in the West
  - “Hero” to cure addiction to morphine
  - Named for making people feel “heroic”
  - Gives the user feelings of pleasure
  - Coming off can cause the user to fall into a deep depression
  - High doses
    - Impair judgment and memory
    - Cause drowsiness and stupor
    - Depress the respiratory system which can lead to a loss of consciousness, coma, and/or death
  - Taken intravenously
    - Needles shared among users can spread HIV and Hepatitis C
  - Withdrawal symptoms
    - Tremors, cramps, chills, rapid heartbeat, insomnia, vomiting, & diarrhea
Depressants

- What are some addictive drugs?
- From what source do many narcotics, such as codeine and heroin, come?
- Why is there so much concern over the effects of alcohol use in the United States?
Stimulants

- Increase the activity of the nervous system and speed up the heart and breathing rate.
- Nicotine
- Amphetamines
- Methamphetamines
- Cocaine
Stimulants: Nicotine

- **Nicotine and the Brain**
  - Nicotine is one of the most common stimulants.
  - It spurs release of adrenaline.
    - Heart rate increases
    - People feel more alert and attentive
    - Reduces appetite
    - Raises the rate at which the body changes food to energy
  - Research has shown that it does not improve the ability to solve complex tasks
  - Regular use can lead to addiction.
- Nicotine is found in tobacco.
- Cigarette smoking is as addictive as heroin.
- **Withdrawal symptoms:**
  - Nervousness, drowsiness, loss of energy, headaches, light headedness, insomnia, dizziness, cramps, heart palpitations, tremors, and sweating
Stimulants: Nicotine - cont

- **Smoking is associated with health risks**
  - Each year more than 400,000 Americans die from smoking-related diseases (This is more than the number who die from motor vehicle accidents, abuse of alcohol and all other drugs, suicide, homicide, and AIDS combined)
  - Smokers are 12 to 20 times more likely to die of lung cancer than nonsmokers
  - Cigarette smoke linked to other cancers in lab studies with animals
  - Cigarette smoking is linked to death from heart disease, chronic lung and respiratory disease, and other illnesses.
  - Pregnant women who smoke risk miscarriage, premature birth, and babies with birth defects
- **The percentage of American adults who smoke has declined from more than 40% in the 1960’s to less than 25% today.**
- **Secondhand smoke**
  - Increases health risk of nonsmokers
  - Is connected to lung cancer, breathing problems, and other illnesses
  - Thousands die from this each year
  - Caused several bans in public places
Stimulants: Amphetamines

- **Amphetamines** are stimulants often used for staying awake or reducing appetite.
- Made from alpha-methyl-beta-phenyl-ethyl-amine
  - A colorless liquid made up of carbon, hydrogen, & nitrogen
- First used in WWII to help soldiers remain awake and alert during the night
- AKA: “speed”, “uppers”
- Forms: pills (orally injected), liquid (injected intravenously)
- High doses can
  - Produce feelings of pleasure
  - Stay high for days = crash (deep sleep or depression…suicide)
  - Cause: restlessness, insomnia, loss of appetite, irritability
- They can cause **hallucinations**, perceptions that seem to be real but are not
  - Common hallucination reported by users: bugs crawling all over them
- They can cause **delusions**, false ideas that seem real.
  - That you can fly
- Overdoses can be connected to delusions of being in danger or of being chased by someone/something
Stimulants: Methamphetamines

- In recent years, one extremely addictive form is **methamphetamine**.
- AKA: meth, crystal, ice
- Form: white or yellowish white crystals called “rocks” that are crushed and then either smoked, injected, or snorted through the nose
- Cause people to feel intense effects: euphoria, loss of appetite, increased alertness, hyperactivity
  - These feelings create a false sense of confidence that = risky behavior
- Effects on the body:
  - Gum damage, advanced tooth decay (“meth mouth”)
  - Permanent brain, kidney, & liver damage
  - Death
- Extremely addictive
- Tolerance develops quickly
- Meth labs
  - By-products include: poisonous gas, toxic chemicals, and highly explosive substances
  - Often catch fire, endangering innocent people & their property
Meth before/after Mug Shots

- The Multnomah County Sheriff's Office of Portland, Oregon has developed a library of mug shots which show the shocking affects of methamphetamine on the faces of its victims after a few years of using the illegal drug.


Stimulants: Cocaine

- Cocaine is a stimulant derived from the leaves of the coca plant (South America)
- Effects: feelings of pleasure, reduces hunger, deadens pain, boosts confidence
- It raises blood pressure, increases heart rate, and decreases supply of oxygen. (Which can sometimes cause death.)
- Used as a pain killer since early 1800s
- Freud used it to overcome depression, then he realized the addictiveness
- Overdose symptoms: restlessness, insomnia, trembling, headaches, nausea, convulsions, hallucinations, and delusions
- One very harmful form is known as crack.
  - Crack is impure…can be more dangerous than cocaine
- Real Stories: Cocaine
Stimulants

- What are the affects of amphetamine use?

- In what way is the addictive stimulant nicotine a health hazard?

- Why would taking a stimulant such as nicotine not help someone who is trying to perform complex tasks such as a math problem?
Stimulants – cont.

- What type of danger does illegal methamphetamine use pose?

- What is the difference between a hallucination and a delusion?

- What is cocaine?

- Why are cocaine and crack fatal?
Works Cited