This Key Learning Guide is to be used as a study guide for the Course: “Drugs of Abuse.” Use this guide to take your personal notes. Review the material covered here as you read your text and complete any questions; then submit to your instructor. Use this Key Learning Guide as a study tool for your midterm and final exams.

**Introduction to Recovery Dynamics:**

In an average day, hundreds and hundreds of people begin their course of drug use. Man has used some form of mood-altering substance as far back as the beginning of recorded history. This course is a survey of the most commonly abused drugs. In this course you will learn the different classes of drugs, their schedules, methods of transmission and the effects they have on the brain and brain chemistry. Additionally, the etiology of addiction and treatment will be briefly discussed. Assignments will assist you in learning about these drugs and will help you come to understand the driving forces behind the addictive process.
Chapter 1: A Brief Overview of Drugs of Abuse (pages 1-17)

Read Pages 1-17 of chapter one in the Substance Abuse Counseling Text.

1. Substance use goes back to __________________________ times.

2. Alcohol is a chemical made from mashed fruit that has been exposed
to________________.

3. Cocaine was originally part of the __________________________ recipe.

4. Drugs such as alcohol and cocaine were used for ________________purposes.

5. Marijuana in its earliest form was grown in ____________.

6. Marijuana is now the fourth highest used drug following __________, __________,
________________ and ________________

7. What derivative of opium was used as a treatment of pain and dysentery during the
civil war?

8. Discovered in 1887, __________ was used during WWII so that soldiers would be
more alert, energetic and have more stamina.

9. LSD is a synthetic ____________.

10. This substance has been identified as the sophisticated drug of choice. ____________

The Addictive Process:

The addictive process involves use, misuse, abuse and dependence. Regardless of the
chemical, the process is the same. After use of a psychoactive chemical, the central
nervous system is affected and causes physiological and mental changes to take place.
It is the mental changes that produce the desired effect that moves a client from use to
misuse.

There are three factors that determine the effects chemicals will have. These are:
1. The methods by which people put psychoactive chemicals into their bodies
2. The speed of transmission to the brain
3. The attraction of the drug for the nerve cells, neurotransmitters and other brain
chemicals
Five Routes of Drug Administration
1. Inhalation
2. Injecting
3. Mucous Membrane absorption
4. Oral Ingestion
5. Contact Absorption (trans-dermal)

Inhaled Drugs
Inhaled Drugs have the following characteristics:
1. Effects are felt quickly: The time of transmission is approximately 60 seconds
2. It is easy to regulate the amount used
3. Only a small amount is adsorbed with each inhalation

The following are inhaled drugs:
1. Marijuana
2. Freebase cocaine
3. Glue
4. Aerosols
5. Cigarettes

Injected Drugs
There are three methods of Injecting
1. Intravenous Injecting – Called “Slamming.” The drug is injected directly into the blood stream by way of a vein
2. Intramuscular injecting – Called “muscling.” The drug is injected directly into the muscle mass
3. Subcutaneous – Called “Skin Popping.” The drug is injected just under the skin

Injected Drugs have the following Characteristics:
1. Large amount is absorbed at once
2. There is an instant “RUSH”
3. Nothing of the drug is wasted

Time of Transmission for Injected Drugs
1. 15-30 seconds in the vein
2. 3-5 minutes in the muscle or under the skin

The following Drugs are Injected:
1. Heroin
2. Cocaine
3. Methamphetamines
Snorted and Mucosal Absorbed Drugs

Types of Absorption:
1. Insufflation – absorption into the mucosa membranes in the nasal passages
2. Sublingual – absorption into the mucosa membranes under the tongue
3. Buccally – absorption into the mucosa membranes between the gum and the cheeks
4. Rectally – absorption into the mucosa membranes in the rectum
5. Vaginally – absorption into the mucosa membranes in the vagina

Drugs of Mucosal absorption:
1. Cocaine
2. Heroin
3. Nitroglycerin
4. Chewing Tobacco

Times of Transmission
From 3-15 minutes depending on the place of administration

Orally Administered Drugs

Process of Absorption
- Swallowed
- Passes through the esophagus into the stomach
- Absorbed into the capillaries of the stomach and enters the vein and liver
- Is pumped back to the heart and on to the rest of the body

Characteristics of Orally Ingested Drugs
1. Low concentration of absorption
2. First Pass metabolism drugs are most potent

Drugs of Oral Administration
1. Oxycontin
2. Xanax
3. Valium
4. Loratab
5. Robotussin
6. Alcohol
7. Triple C’s

Time of Transmission
20-30 minutes
Trans-dermal Administration

Trans-dermal Absorption – absorbed through the skin

- Lotions
- Eye drops
- Patches

Characteristics of Trans-dermal Administration

1. Usually by prescription
2. Measured amount of the drug
3. Seldom used for administration of illegal drugs

Drugs of Trans-dermal absorption

1. Nicotine
2. Fentanyl
3. Morphine
4. Clonidine
5. LSD
6. Cocaine

Time of Transmission

1-2 days for effects to be noticed and up to 7 days of absorption from one patch
Chapter 2: Drug Distribution: Getting To the Brain (pages 33-39)

Read Chapter 2, pages 33 to 39 in the text, Substance Abuse Counseling Text

1. The brain is divided into ____________ ______________.
2. The left side of the brain is the locus of ______________ thought.
3. The right side of the brain is the locus of ______________ thought.
4. Chemical messengers are called______________________.
5. Neurons have a central body with wispy tendrils called ________________.
6. ______________ are long slender on the neuron opposite the dendrites.
7. The brain consists of what three basic parts?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
8. Name 7 parts of the neuron.

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_________________________________________________________________
_________________________________________________________________
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_________________________________________________________________
9. What is a synapse or synaptic gap?

_________________________________________________________________
_________________________________________________________________
10. Define a receptor site.

11. What are vesicles?

12. What is the blood brain barrier?

13. What kind of substances can cross the blood brain barrier?

14. Drugs that can cross the blood brain barrier are called ___________________.

15. What two drugs are related to the neurotransmitter GABA?

16. Dopamine-containing neurons relay messages of _____________________.

17. All major drugs of abuse except hallucinogens have a ___________________ or enhancing effect on the brain.
The Central Nervous System affects the following systems:

- The Brain
- Respiration
- Digestion
- Excretory Function
- Endocrine Function
- Reproductive Function
- Enables us to reason and make judgments

The Autonomic Nervous System Controls:

- Circulation
- Digestion
- Respiration
- Glandular outputs
- Genital reactions
- Sympathetic responses

Somatic Nervous System Includes:

- Sensory neurons that reach the skin, muscles and joints
- Responsible for relaying information about muscles and limb position
- Transmits instructions back to skeletal

The process of message transmission:

- Incoming electrical signals force the release of neurotransmitters from the vesicle
- They are sent across the synaptic gap
- On the new neuron, the neurotransmitters fit themselves into receptor sites
- The receptor sites open the ion molecule gate
- This allows the electrical charge in or out
- When enough electrical charge is achieved, the next signal fires and the process continues
- Once the message is received, neurotransmitters return to the synaptic gap and are reabsorbed by reuptake ports
- Auto receptors monitor the amount of neurotransmitters needed for the transmission
Tolerance and Withdrawal

Psychoactive drugs disrupt the process of message transmission. Drugs that enhance the activity of the neurotransmitters and receptor sites are called agonist. Drugs that block activity are called antagonist.

The body regards any drug as a toxin, but if the use continues over a long time, it is forced to adapt and develop a “tolerance” for the drug. Increased tolerance is the need to use increasing amounts to get the same effect.

The Types of Tolerances are:

1. Dispositional Tolerance – the speeding up of metabolism in order to eliminate the drug
2. Pharmacodynamic Tolerance – nerve cells become less sensitive to the drugs
3. Reverse Tolerance – when the body systems are no longer able to metabolize drugs and the body can no longer tolerate the drug (alcohol absorption after liver destruction)
4. Acute Tolerance – an automatic acceptance of a drug by the body
5. Select Tolerance – When increased quantities of a drug are taken to overcome acute tolerance in order to produce a high
6. Inverse Tolerance – When a person becomes more sensitive to the effects of a drug as the brain’s chemistry changes

Withdrawal – the body’s attempt to rebalance itself

Types of Withdrawal:

1. Non-purposive withdrawal – physical withdrawal; objective physical signs that are directly observable when a drug is stopped.
2. Purposive withdrawal – psychological withdrawal resulting in behavioral changes exhibited by an addict when the drug is stopped.
3. Protracted Withdrawal – an environmentally influenced withdrawal that is stimulated by environmental triggers or cues.

Metabolism – the body’s mechanism for processing foreign substances

Excretion – the process of eliminating foreign substances from the body

Effects on Metabolism:

1. Age – after 30 the body produces less enzymes
2. Race – different ethnic groups have different levels of enzymes
3. Sex – males and females metabolize at different rates
4. Health – certain conditions affect metabolism
5. Emotional Health – Metabolism is affected by preexisting chemical imbalances
6. Other Drugs – Two or more drugs will have the body fighting for metabolism attention, making the process slower
Desired Effects of drug use:
- Curiosity Satisfaction
- To “get high” and be in a dreamlike state
- To self-medicate
- To have confidence
- To have energy
- Pain Relief
- Anxiety Control
- Peer Influence
- Social Confidence
- Boredom Relief

Levels of Use:
- Abstinence
- Experimentation
- Social/Recreational
- Habituation
- Abuse
- Addiction
Chapter 3: The Etiology of Addiction (pages 77-112)

Read chapter 3, pages 77–112 of the text.

1. What is the etiology of a disease?


9. Viewed from which theory is substance abuse a result of willful overindulgence?

10. Although many AA/NA groups view addiction as a disease, give three major limitations to this theory.

11. There is extensive research on alcoholism. List the possibilities as to how genetic components of alcoholism may be at work.
12. According to Doweiko, there are five ways that parental alcoholism impacts offspring. List them.

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13. Define Boundaries, Coalitions and Roles as they relate to structural characteristics of Alcoholic Families.

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________________________________________________________________________

14. Black identified several roles that were consistent in alcoholic/addicted families. List and define each.

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________________________________________________________________________

15. According to the Behavioral Theory of Addictions, addictive behavior is maintained by ____________________________.

16. Which theory is the most integrated in all aspects related to addiction?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
The Compulsion Curve: A method of measure to determine the risk for use and relapse.

1. Heredity  
2. Heredity + Environment  
3. Heredity + Environment + Use  
4. Heredity + Environment + long term use  
5. Heredity + Environment + addiction  
6. Detoxification and Abstinence (return to step three, once one is addicted there is no return to step one)  
7. Relapse
Schedule of Drugs (pages 39-40)

Read chapter 2, pages 39–40 of the text. Read the section on Controlled Substance Schedules on page 39 and review the chart on page 40. Then visit this website and review the information found there: http://www.usdoj.gov/dea/pubs/abuse/1-csa.htm

Schedule of Drugs
The Comprehensive Drug Abuse Prevention and Control Act became law in 1970. Title II of this law, the Controlled Substances Act, is the legal foundation of narcotics enforcement in the United States. The Controlled Substances Act regulates the manufacture, possession, movement and distribution of drugs in our country. It places all drugs into one of five schedules, or classifications, and is controlled by the Department of Justice and the Department of Health and Human Services, including the Federal Drug Administration. The schedules are discussed below and examples from each schedule are listed.

Schedule I Drugs
Schedule I drugs have a high tendency for abuse and have no accepted medical use. This schedule includes drugs such as Marijuana, Heroin, Ecstasy, LSD and GHB. Recent activists have tried to change the schedule for Marijuana citing the possible medical benefits of the drug. Pharmacies do not sell Schedule I drugs, and they are not available with a prescription by physician.

Schedule II Drugs
Schedule II drugs have a high tendency for abuse, may have an accepted medical use, and can produce dependency or addiction with chronic use. This schedule includes examples such as Cocaine, Opium, Morphine, Fentanyl, Amphetamines and Methamphetamine. Schedule II drugs may be available with a prescription by a physician, but not all pharmacies may carry them. These drugs require more stringent records and storage procedures than drugs in Schedules III and IV.

Schedule III Drugs
Schedule III drugs have less potential for abuse or addiction than drugs in the first two schedules and have a currently accepted medical use. Examples of Schedule III drugs include Anabolic Steroids, Codeine, Ketamine, Hydrocodone with Aspirin, and Hydrocodone with Acetaminophen. Schedule III drugs may be available with a prescription, but not all pharmacies may carry them.
**Schedule IV Drugs**
Schedule IV drugs have a low potential for abuse, have a currently accepted medical use, has a low chance for addiction or limited addictive properties. Examples of Schedule IV drugs include Valium, Xanax, Phenobarbital, and Rohypnol (commonly known as the "date rape" drug). These drugs may be available with a prescription, but not all pharmacies may carry them.

**Schedule V Drugs**
Schedule V drugs have a lower chance of abuse than Schedule IV drugs, have a currently accepted medical use in the US, and lesser chance or side effects of dependence compared to Schedule IV drugs. This schedule includes such drugs as cough suppressants with Codeine. Schedule V drugs are regulated but generally do not require a prescription.

1. In what year was the Control Act passed and why was it passed?

2. DEA stands for what agency?

3. The website lists eight criteria that are the bases upon which drugs are classified. List them and briefly explain them.
4. Marijuana is the most commonly used substance in the United States among children ages 12-18. In what schedule would this drug be found? Tell why based upon the eight criteria listed above.

5. Many prescription pain relievers are abused, most fall into schedule II and III. Explain why they are not a schedule I drug.
UPPERS/STIMULANTS (pages 39-76)

Read chapter 2, pages 39–76 of the text. Read pages 16, 34-48, 73-76 of the booklet, Street Drugs.

**Amphetamines: Synthetic Ephedrine** (Street Drugs p. 16, 48)

- Origin: United States
- Tolerance is to specific actions of the drug (euphoria, wakefulness, appetite suppression). High risk of both physical and psychological dependence
- Crosses the blood brain barrier
- Causes a release of Dopamine in the brain that produces the high
- Withdrawal: Depression, fatigue, increased appetite, prolonged REM sleep, convulsions, and circulatory collapse

1. What three drugs are jointly referred to as amphetamines?

2. Amphetamines were created to treat what clinical illnesses?

3. What are the signs of Amphetamine use?
4. What are the effects of Amphetamines on the body?

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5. How are amphetamines ingested?

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________________________________________

6. Stimulants generally increase__________________, __________________, and
______________________.

7. Ritalin and Adderal are the two most commonly prescribed_______________.

Methamphetamines: (Street Drugs, pg 35-40)

- Origin: Pacific and Southwest United States
- Risk of tolerance and addiction is high
- Crosses the blood brain barrier
- Causes a release of Dopamine in the brain that produces the high
- Common Names: Dust, chocolate, chalk, speed
- Withdrawal: Depression, fatigue, increased appetite, prolonged REM sleep, convulsions, and circulatory collapse

8. How can Methamphetamines be ingested?

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9. Define “euphoria.”

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10. Describe the effects of chronic methamphetamine abuse.

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11. What are the signs of methamphetamine use?

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12. Describe the new trends of crystal meth and infer why this could be a real risk to younger children.

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13. Explain why the meth lab is such a dangerous place.

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14. List and define the three types of methamphetamine.

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15. What are the differences between crystal meth and powdered methamphetamine?

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**Cocaine and Crack:** (pg. 42-46 Street Drugs booklet)

- Origin: South America
- Risk tolerance and dependence is high
- Crosses the blood brain barrier
- Intense high that blocks dopamine re-uptake
- Common Names: Snow White, Lines, Crank, Rock
- Withdrawal: Crash after a binge (sleeping, lack of energy, cravings return, emotional depression, relapse)

16. Cocaine is the most potent ________________ of natural origin.

17. What are the two forms of cocaine?

________________________________________________________________________
________________________________________________________________________

18. How is cocaine ingested?

________________________________________________________________________
________________________________________________________________________
19. What are the signs of cocaine use?

20. How does cocaine affect the body?

21. Rock crystal cocaine is heated and its vapors are__________________.

22. When alcohol and cocaine are used together, there is a conversion to

_________________________ which has a longer duration action time in the brain.

23. The coca plant is primarily found in what four geographic areas:

24. Once manufactured in conversion laboratories, cocaine is pressed into bricks called

_________________________.

25. ______________________ groups are the predominant distributors of wholesale

cocaine in the United States.

26. Central Florida is considered to be an HIDTA, which stands for

_________________________.

23
27. Cocaine is generally sold as a white, crystalline powder and is often diluted with other substances such as _________________.

28. Sometimes this additive is an active drug like ________________ or _________________.

29. ________________ cocaine is derived from the cocaine after it has been dissolved in ammonia or baking soda and water, then boiled.

30. The term “crack” comes from the _________________.

31. While cocaine is typically 70-78% pure, crack is usually _______% pure which has increased its addictive quality.

32. ________________ are the primary users of cocaine and crack in the United States.

33. While the high from smoking crack is almost instant, the high only typically lasts ________________ minutes.
**Tobacco:** (Pg. 73-76 Street Drugs Booklet)

- Origin: India
- Risk for tolerance and dependence is high
- Crosses the blood brain barrier
- Common Names: Smokes, sticks, chew, snuff
- Withdrawal: Increased anger, hostility, aggression, loss of social cooperation

34. Tobacco remains the ____________ ____________ cause of death in the United States.

35. Teenage tobacco smokers are ___________ times more likely to smoke marijuana than non-smoking peers.

36. Three to four cannabis cigarettes a day are associated with the same evidence of acute and chronic bronchitis and the same degree of damage to the bronchial mucous as ____________ tobacco cigarettes.

37. Smoking is responsible for ____________% of all lung cancers.

38. Describe the effects tobacco has on the body.

39. Nicotine can be both a ____________ and a ______________.
40. List at least five diseases that are linked to tobacco smoking.

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41. The active ingredient in tobacco is____________________; however, there are over 4,000 other chemicals found in tobacco smoke.

42. Nicotine that is smoked takes only a few seconds to reach the brain; however, it has a direct effect on the body for up to ________ minutes.

43. Smoking during pregnancy contributes to an elevated risk of what?

________________________________________________________________________

**Caffeine:** (Pg. 57, 58 of text)

- Origin: South America
- Risk tolerance and dependence is small
- Crosses the blood brain barrier
- Blocks the receptor sites for adenosine, a natural sedative, and stimulates the reward center of the brain
- Common Names: Coffee, chocolate, cocoa, teas
- Ingestion: Oral
- Withdrawal: Headaches, fatigue, nausea, anxiety, depression

44. ________________ is the most widely used psychoactive agent in the world.

45. **Caffeine** is or is not listed as a controlled substance on the Controlled Substance Schedule. __________________________
46. Peak absorption of caffeine into the gastrointestinal tract occurs within _____ to _____ minutes.

47. At levels of caffeine higher than 500 mg., the __________________________ of the brain are stimulated, causing increased heart rate, increased respiration and constriction of the blood vessels in the brain.

48. List the effects of caffeine on the body.

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________________________________________________________________________
________________________________________________________________________

49. A lethal dose of caffeine would be equal to _______ cups of coffee.
Downers/Depressants (pages 40-50)

Read pages 49-54, 59-60, and 78-79 of the booklet, Street Drugs. Pages 40-50 of the text.

Narcotics: Prescription

- Origin: Southeast Asia, Southwest Asia, and in the Western Hemisphere
- Risk tolerance and dependence is high
- Crosses the blood brain barrier
- Acts at the neural synapse causing the release of neurotransmitters
- Common Names: Morphine, Codeine, Darvon, Loratab, OxyContin, Dilaudid, Vicodin, Percocet, Darvocet
- Withdrawal: Severe bone and joint pain, muscle cramps, nausea, yawning, sweating, severe muscle pain, anxiety, high blood pressure, insomnia, diarrhea, chills, flu-like symptoms
- Medical uses – pain relief, cough suppressant and methadone is one of two opioids that are approved for treatment of heroin dependence.

1. Narcotics are known as narcotic analgesics or __________________________.

2. Prescription narcotics attach to specific proteins called ____________________
   ____________________, which are found in the brain, spinal cord, and gastrointestinal tract.

3. Long-term use of prescription narcotics can lead to ______________________
   ______________.
4. Those taking narcotics should be supervised when stopping use in order to reduce ________________ symptoms; therefore, detoxification is required under medical supervision.

5. Describe the signs of oxycodone use.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

6. True or False: Oxycodone may be snorted or injected.

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________________________________________________________________________
________________________________________________________________________

7. Hydrocodone is a legal opiate prescribed for ________________.

8. List at least three prescription brand names for hydrocodone.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

9. Morphine is the principal constituent of ________________.

10. ________________ is one of the most effective drugs known for the relief of severe pain.
11. ________________ has an analgesic potency about 80 times that of morphine.

12. True or False: _____ The biological effects of Fentanyl are indistinguishable from those of heroin.

13. Used illegally, Fentanyl ______________ patches are boiled to make a narcotic tea.

**Heroin:** (pg. 51-54, *Street Drugs*)

- Origin: Southeast Asia, Southwest Asia, and in the Western Hemisphere
- Risk tolerance and dependence is high and rapid
- Crosses the blood brain barrier
- Causes rapid changes in the dopamine neurons and actually acts as a neurotransmitter, blocking re-uptake sites
- Common Names: White China, Mexican Tar
- Withdrawal: Severe bone and joint pain, muscle cramps, nausea, yawning, sweating, severe muscle pain, anxiety, depressed heart rate, itching, constricted pupils

14. ________________ is the most powerful of the opiates, and is an illegal narcotic.

15. Heroin is derived from ________________.

16. ________________ accounts for about three-fourths of the opium produced in the world.

17. ________________ and ________________ have often been added to heroin, increasing unpredictability and risk associated with heroin use.
18. How may heroin be ingested?


19. What are the effects of heroin use on the body?


20. What is the secondary risk associated with heroin and why?


22. In regular users, how long before withdrawal symptoms appear?
23. __________________ remain the principal cause of death associated with illegal drug use in Europe.

Alcohol: (pg 77-78 Street Drugs, pg 40-44 of text)

- Origin: Prehistoric use with grapes fermented in a basket
- Risk tolerance and dependence is moderate
- Crosses the blood brain barrier
- Affects the cerebral cortex causing a lessening of inhibitions and activates the endorphin reward system in the brain
- Common Names: Beer, Wine, Coolers, Distilled Spirits
- Withdrawal: Delirium tremens, sweating, shakes, anxiety, nausea, diarrhea, transitional hallucinations

24. What is the name of the type of alcohol used to make alcoholic beverages?

____________________________

25. _______ percent of adults in the United States have consumed alcohol at some time.

26. Alcohol is metabolized in the__________.

27. What are the effects of alcohol on the body?

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________________________________________________________________________
________________________________________________________________________


________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
29. What is Blood Alcohol Concentration or Blood Alcohol Percentage?


30. The gender differences are what, regarding alcohol consumption?


31. Fetal Alcohol Syndrome results when what happens?


32. Ethanol is a ___________ ___________, producing defects in utero.

33. What is alcoholic hepatitis?


Barbiturates:

- Origin: United States
- Risk tolerance and dependence is moderate
- Crosses the blood brain barrier
- Depresses the central nervous system and inhibits neural activity
- Common Names: Amytal, Nembutol, Seconal, Phenobarbital
- Withdrawal: Anxiety, insomnia, nausea, vomiting, seizures and delirium
- Medical Uses: Treatment of insomnia and anxiety
34. From 1950 to 1970, Barbiturates were second in abuse only to _________________.

35. Barbiturates are _________________ compounds, which allow them to pass the blood brain barrier.

36. Like all sedative-hypnotics, barbiturates can create tolerance in _________________.

37. Discuss how barbiturates affect the body.

38. Describe the withdrawal from barbiturates.

Benzodiazepines: (pg. 19, Street Drugs, pg 46-47 text)

- Origin: From early Greek Culture
- Risk tolerance and dependence is low with supervision
- Crosses the blood brain barrier
- Makes the GABA receptors in the brain more sensitive to the neurotransmitter
- Common Names: Xanie-Bars, Valium, Vallies, Roofies, Rohypnol
- Withdrawal: Rebound anxiety, sleep disturbance, mood instability, seizures, depression, hallucinations
- Medical uses: treatment of anxiety or panic attacks
39. The text lists four reasons for overuse of benzodiazepines. List them here.

_________________________________________

_________________________________________

_________________________________________

_________________________________________

40. Benzodiazepines are rarely used alone and are often used to enhance the effects of ______________, ______________, or ______________.

41. Describe the effects on the body.

_________________________________________

_________________________________________

_________________________________________

42. Discuss the withdrawal from benzodiazepines.

_________________________________________

_________________________________________

_________________________________________

43. Discuss the effects of benzodiazepines on REM sleep.

_________________________________________

_________________________________________

_________________________________________

44. ______________ is a powerful benzodiazepine sedative reportedly to be 10 times stronger than Valium.
45. Benzodiazepines are considered to be the third most prescribed __________________.

46. Rohypnol is known as the ____________________________.

47. Signs of Rohypnol use include:

   __________________________________________
   __________________________________________
   __________________________________________

48. A dye has been added to the pills for what purpose?

   __________________________________________
   __________________________________________
   __________________________________________

Other Depressants: Club Drugs - GHB (Street Drugs, pg 59, 60)

- Origin: United States
- Risk tolerance and dependence is moderate
- Crosses the blood brain barrier
- Makes the GABA receptors in the brain more sensitive to the neurotransmitter
- Common Names: Goop, G-liquid, Sodas, Salty Water, Gator Aid
- Withdrawal: Tremors, insomnia, tachycardia, delirium, agitation

49. GHB is typically sold as a clear______________ or a ____________________________
     ____________________________.

50. GHB is usually sold in kits on the ____________________________.
51. GHB leaves the body relatively quickly and is therefore difficult to detect in routine__________________ or _______________________ screens.

52. GHB is often sold by the _________________ in plastic containers.

53. Describe the effects of GHB on the body.

____________________________________________________________

____________________________________________________________

____________________________________________________________
All Arounders (pages 62-68)

Read pages 62-68 of the text.

**Hallucinogens: PCP, LSD**

- Origin: Europe, Costa Rica, Mexico, Africa
- Risk tolerance and dependence is unknown
- Crosses the blood brain barrier
- Causes a serotonergic neurotransmission.
- Common Names: Acid, Boomers, Cube, Trips, Tabs, Hits, Dots, Angel Dust
- Withdrawal: Perceptual changes

1. LSD is the most ______________ and highly studied hallucinogen known to man.

2. What are the psychoactive effects of LSD?

3. LSD is metabolized primarily in the ______________.

4. PCP and LSD are what schedules of drug?

5. PCP can be ingested in what ways?

6. LSD stands for ____________________________.
7. PCP stands for ____________________________.

8. Describe a typical hallucinogenic “trip.”

________________________________________

________________________________________

________________________________________

9. Close observation of PCP detox must continue for ________________.

10. PCP shows a __________ potential for psychological dependency.

MDMA: Ecstasy (pg 64-65 text, pg 28-30)

- Origin: Netherlands and Belgium
- Risk tolerance and dependence is unknown
- Crosses the blood brain barrier
- Causes reduction in serotonergic neurotransmission
- Common Names: Date drug, “Intimacy”
- Withdrawal: Unknown

11. MDMA is a typical designer drug or synthesized ________________.

12. There is a growing number of tablets and capsules that are sold as Ecstasy, but contain_________________________.

13. Research indicates that people who use MDMA risk permanent problems with ________________ and ________________.

14. Users identify loosening up or ________________ ________________ as the primary benefit of MDMA use.
15. MDMA has been placed on the _______________ _______________ drug schedule.

16. Explain the effects of MDMA on the body.

________________________________________________________________________

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________________________________________________________________________

Inhalants: Huffing, bagging (pg 65-67 text, pg 28-30)

• Origin: Universal due to availability and not being illegal
• Risk tolerance and dependence is unknown
• Crosses the blood brain barrier
• Effects on the brain depend upon the chemical being inhaled
• Common Names: Sniff, Air Blast, Aroma of Men, Buzz Bomb, Laughing Gas, Moon Gas, Oz
• Withdrawal: Unknown

17. Huffing was first recognized in the 1950’s as a cheap high when youth were found to be sniffing ____________.

18. List at least 8 substances that are inhaled for the purpose of getting high.

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________

________________________________________________________________________
19. List the symptoms that are associated with the use of inhalants.

_________________________________________________________

_________________________________________________________

_________________________________________________________

20. Describe the effects of inhalant use on the body.

_________________________________________________________

_________________________________________________________

_________________________________________________________

21. The most devastating effect of inhalant abuse is __________ as a result of cardiac arrest.

22. Marijuana comes from the un-pollinated plant called ________________.

23. In what ways is marijuana ingested?

_________________________________________________________

_________________________________________________________

_________________________________________________________
24. Define “bhang.”

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

25. Describe the psychoactive effects of marijuana.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

26. Describe the effects marijuana has on the body.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

27. Marijuana is a schedule I drug. Why?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________


__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

29. What is the difference between marijuana and hashish?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
30. Define “cannabinoid.”

31. In the United States a pound of marijuana sells for what amount?

Anabolic Steroids (pg. 65 Street Drugs, 67-68 text)

- Origin: United States
- Risk tolerance and dependence is unknown
- Does not cross the blood brain barrier
- No neurotransmission effect
- Common Names: Roid, Andro
- Withdrawal: Possible suicidal thoughts upon cessation; depression, appetite and sleep disturbance
- Medical use: Typically prescribed for people with low testosterone

32. What is steroid cycling?

33. Two of the major side effects of steroid use include __________ and __________.
34. Because of the medical use of steroids, they are on what schedule of drug?

___________________________.

35. How may steroids be administered?

________________________________________________________________________

________________________________________________________________________

36. Discuss the gender specific side effects of steroid use.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Phases of Drug Addiction Treatment

Read pages 151 –178 of the text.

1. What is treatment?

2. Name at least four different treatment settings.

3. Discuss matching treatment options to treatment needs, including drugs of choice; i.e. what drugs might need detoxification.

4. What is treatment planning?

5. Indicate how a plan might differ based on the drug of choice.
A. Prevention: Goal to prevent abuse before it happens

- Scare tactics – are not effective
- Drug information – minimally effective
- Skill building – very effective
- Promotion of social support systems – very effective
- Environmental change program – moderately effective
- Public health models – user testimony – moderately effective

B. Treatment: Seeking to intervene in the process addiction

Components of Substance Abuse Treatment

- Medical and biological treatments
- Detoxification
- Diet and Nutrition
- Medication for Symptom Reduction
- Medication for Relapse Reduction
- Drug Screening
- Psychosocial Treatments
  - Psychotherapy
  - Relapse Prevention Planning
  - Development of recovery support community
    - 12 step programs
    - Celebrate Recovery
    - Self-help support groups

Stages of the Therapeutic Change Process

1. Intervention – a method of confronting an individual about substance abuse problems

2. Assessment Phase – learn the pattern of use

- Diagnostic Interview
- Assessment of Behavioral Characteristics
3. DSM IV diagnosis: Feedback phase

- **Differential diagnosis** – determining the correct level of addiction as well as determining any other conditions such as physical or mental conditions that may be complicating the addiction picture

- **Dual Diagnosis** – many individuals diagnosed with substance abuse problems are also diagnosed with psychological disorders

4. Treatment:

- **What setting is appropriate based on diagnosis**
  
  - Detoxification - Stabilization
  - Rehabilitation - Residential
  - Dual Diagnosis Inpatient
  - Partial Program
  - Intensive Outpatient
  - DUI Programs