

Aim: How does alcohol affect the human body?

Journal: Why do people drink alcohol?  
What are the differences between adult drinking behaviors and teen drinking behaviors?  
Do you think the USA should change the drinking age, why or why not?

Jan 6-10:31 AM

Aim: How does alcohol affect the human body?

What is Alcohol? What type of alcohol?

Alcohol is poison

Depressant drug- slows down body function

\* \*there are hundreds of different types of alcohol.

Ethyl alcohol- least toxic (in alcoholic drinks) ethanol

Methyl alcohol (toxic industrial solvent)

Isopropyl alcohol (rubbing alcohol) used in shaving cream, antifreeze, antiseptics

Butyl alcohol (used in many industrial processes)

Apr 21-11:18 AM

Alcohol is often measured in terms of "Drinks".  
Alcoholic beverages contain alcohol as well as sugar, water, and other substances. A drink supplies the user with  $\frac{1}{2}$  ounce of pure ethanol. A drink is measured as:

1.5 oz



1.5 oz

4-5 oz



4-5 oz

12 oz



12 oz

propanol 30% of alcohol



Dec 14-7:01 AM

**What is Blood Alcohol Concentration?**

The amount of alcohol in the blood or the # of grams of alcohol per 100 milliliters of blood expressed in a percentage (.08)

- The higher the BAC the greater the effect on a persons mind and behavior.

Police test BAC by: breathalyzer, urine, and blood tests (test behavior, and judgment by sobriety tests)

- About 1/2 oz. of pure alcohol per 1-1.5 hours
- 2 drinks are eliminated from the body every 3 hours
- DWI- Driving while intoxicated-.08 and above
- DWAI- Driving while ability impaired- .05-.07

Dec 14-6:59 AM

**What is intoxication?**

A state when someone drinks enough alcohol to affect his or her brain. This can be after 1 drink.

**What influences how alcohol is absorbed? (What makes people absorb alcohol differently?)**

Weight

Gender *SEX*

Body chemistry (metabolism)

Body fat

Food taken with alcohol

State of health

State of mind

Dec 14-6:53 AM

**What is the big difference between men and women when consuming alcohol?**

1. Women have a higher % of body fat.  
(Alcohol is water-soluble and doesn't need to be digested, so the water dilutes the alcohol)
2. Women have less alcohol dehydrogenase enzyme in the stomach to break down alcohol, so less alcohol is metabolized before getting to the blood.
3. Change in hormone levels during menstruation affects the rate of alcohol metabolism.

Dec 14-6:54 AM

When to HALT? UP

When you are hungry, angry, lonely, or tired.

What happens when alcohol is mixed with another drug?

Synergistic effect- When 2 or more substances present at the same time it equals a greater effect than the sum of the two substances. (2+2= 7)

Binge Drinking- consuming a large amount of alcohol in a short amount of time

Dec 14-6:57 AM

What is alcoholism?

- Alcoholism, also known as alcohol dependence, is a lifelong disease that includes the following four symptoms:
- **Craving**-A strong need, or urge, to drink.
- **Loss of control**-Not being able to stop drinking once drinking has begun.
- **Physical dependence**-Withdrawal symptoms, such as nausea, sweating, shakiness, and anxiety after stopping drinking.
- **Tolerance**-The need to drink greater amounts of alcohol to get "high."

May 23-7:25 AM

prefrontal Cortex

1<sup>st</sup> part of the Brain to be impair by alcohol

Medulla

last part

May 20-10:23 AM

**How does alcohol leave the system?**

The liver aids in detoxification. It acts as a cleansing station to rid the body of poisons.

The liver breaks down alcohol in the body at a rate of 1/2 ounce of pure alcohol per hour. This is called OXIDATION. Oxidation is the breakdown of alcohol into carbon dioxide and water.

NOTHING can change the rate of this process.

The excess use of alcohol can damage the liver and lead to a serious liver disease called cirrhosis.

Cirrhosis is when the liver becomes hard and scarred, causing the liver to not function properly.

Dec 14-7:12 AM

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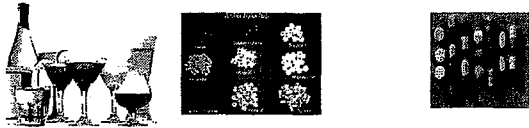
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Categories of drugs

Central nervous system depressants

- Examples are alcohol, barbiturates, and sedatives. ✓
- Some noticeable signs of the use of depressants include lethargy, lack of concentration, and excessive sleeping. ✓
- Mixing depressants is extremely dangerous and can be fatal.
- Withdrawal from barbiturate addiction can be very difficult. It requires medical supervision. Going "cold turkey" can be fatal.



May 7-7:19 AM

Central nervous system stimulants



Examples of stimulants- amphetamines (diet pills, Ritalin, Adderall), meth, cocaine, caffeine, nicotine, crack.

- Some signs of stimulant use include abnormal cheerfulness or talkativeness, frequent urination, sleeping difficulty, and loss of appetite.
- Withdrawal signs may include depression, drowsiness, weakness, lack of interest and hunger.



May 7-7:21 AM

← Narcotics

Opiates and Opiodes



- Examples of opiates are heroin, morphine, and oxycodone. Demerol, and methadone are examples of opiodes.
- Opiates occur naturally; opiodes are man made drugs that create the same effect.
- These substances - blocking out pain and problems.
- The user may experience drowsiness, lack of attention, and loss of appetite.



May 7-7:22 AM

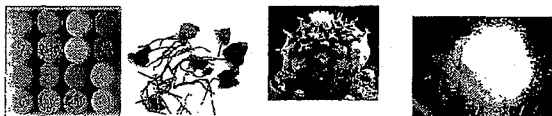
Hallucinogens

LSD, mescaline, PCP, Psilocybin *Salvia*

•These substances produce changes in perception, visual illusions, and alteration of the senses.

•A person under the influence of an hallucinogen may have difficulty concentrating, flights of disconnected ideas and wide mood swings.

These drugs (PCP) are extremely dangerous drug that can produce violent reactions, long-term psychological effects, and even brain damage.



May 7-7:23 AM

Commonly Abused Rx (Prescription) Drugs:

Commonly abused classes of prescription drugs include opioids (for pain), central nervous system (CNS) depressants (for anxiety and sleep disorders), and stimulants (for ADHD and narcolepsy).

Opioids include:

- > Fentanyl (Duragesic®)
- > Hydrocodone (Vicodin®)
- > Oxycodone (OxyContin®)
- > Oxymorphone (Opana®)
- > Propoxyphene (Darvon®)
- > Hydromorphone (Dilaudid®)
- > Meperidine (Demerol®)
- > Diphenoxylate (Lomotil®)

Central nervous system depressants include:

- > Pentobarbital sodium (Nembutal®)
- > Diazepam (Valium®)
- > Alprazolam (Xanax®)

Stimulants include:

- > Dextroamphetamine (Dexedrine®)
- > Methylphenidate (Ritalin® and Concerta®)
- > Amphetamines (Adderall®)

Jan 6-10:23 AM

Cocaine

A powerfully addictive stimulant drug made from the leaves of the coca plant native to South America. It produces short-term euphoria, energy, and talkativeness in addition to potentially dangerous physical effects like raising heart rate and blood pressure.

Jan 6-10:18 AM

**Methamphetamine**

is a central nervous system stimulant drug that is similar in structure to amphetamine. Due to its high potential for abuse, methamphetamine is classified as a Schedule II drug and is available only through a prescription that cannot be refilled. Although methamphetamine can be prescribed by a doctor, its medical uses are limited, and the doses that are prescribed are much lower than those typically abused.

Most of the methamphetamine abused in this country comes from foreign or domestic superlabs (clandestine), although it can also be made in small, illegal laboratories, where its production endangers the people in the labs, neighbors, and the environment

Jan 6-10:22 AM

**Nicotine-**

Tobacco is a leafy plant grown around the world, including in parts of the United States. There are many chemicals found in tobacco or created by burning it (as in cigarettes), but nicotine is the ingredient that can lead to addiction.

Other chemicals produced by smoking, such as tar, carbon monoxide, acetaldehyde, and nitrosamines, also can cause harm to the body.

Tobacco use is the leading preventable cause of disease, disability, and death in the United States. According to the Centers for Disease Control and Prevention (CDC), cigarette smoking results in more than 480,000 premature deaths in the United States each year—about 1 in every 5 U.S. deaths!—and an additional 16 million people suffer with a serious illness caused by smoking. In fact, for every one person who dies from smoking, about 30 more suffer from at least one serious tobacco-related illness

Jan 6-10:24 AM

**Steroids**

**Also known as:** Anabolic-androgenic steroids, "roids," or "juice"

**Common brand names:** Andro, Winstrol, Deca-durabolin, and Equipoise

Anabolic steroids are manmade substances related to testosterone (male sex hormone). Doctors use anabolic steroids to treat hormone problems in men, delayed puberty, and muscle loss from some diseases.

Bodybuilders and athletes may use anabolic steroids to build muscles and improve athletic performance, often taking doses much higher than would be prescribed for a medical condition. Using them this way is not legal—or safe.

Anabolic steroids are only one type of steroid. Other types of steroids include cortisol, estrogen, and progesterone. These are different chemicals and do not have the same effects.

Jan 7-10:18 AM

DXM (Dextromethorphan)	Methamphetamines		
PCP	Inhalants	Rohypnol	
Benzodiazepines	Hashish	Psilocybin	
Salvia	Heroin	Adderall	
Amphetamines	Nicotine	Ecstasy	
Ketamine	Cocaine	Crack	Marijuana
Anabolic Steroids	lysergic acid diethylamide (LSD)		
Salvia	Oxycodone		

May 15-2:31 PM

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