

<http://www.brainpop.com/health/nutrition/alcohol/zoom.weml>

# Ch. 9 ALCOHOL

## Lesson 1: Alcohol Use and Abuse

Words to know:

- alcohol-** a drug created by a chemical reaction in some foods, especially fruits and grains
- ☺ **intoxicated-** being drunk
- blood alcohol content/concentration (BAC) or blood alcohol level (BAL)-** the amount of alcohol in the blood
- cirrhosis-** the scarring and destruction of liver tissue
- ☺ **ulcer-** an open sore in the stomach lining
- ☺ **alcohol abuse-** using alcohol in ways that are unhealthy, illegal, or both
- ☺ **alcoholism-** a disease in which a person has a physical and psychological need for alcohol

Alcohol: What is it?

Consumable alcohol is a drug (wine, beer, liquor)

There are 4 types of alcohol

1. Ethyl/Ethanol: is what is found in wine, beer, and distilled spirits.
2. Methyl/ Methanol (wood alcohol): is used in paint products and as a fuel, it is poisonous.
3. Isopropyl alcohol (rubbing alcohol): is used as a disinfectant and poisons have been added to prevent drinking.
4. Denatured alcohol: is ethyl alcohol, w/ poisons added. It is used as a cleaner.

\*\*\*Both methyl and isopropyl alcohol can cause blindness.

Alcohol production:

A. Fermentation

1. Uses sugar + yeast to create alcohol and carbon dioxide
2. Wine is fermented

B. Brewing

1. Uses starch + malt + yeast + heat to produce alcohol and C02
2. Beer is brewed

3. Wine is 10-12% pure, sparkling wine is 19% pure

4. Distilled spirits (hard Liquor) is 40-50% pure NYS law no more than 75.5% pure

### C. Distillation

1. A fermented or brewed beverage that has been boiled.
2. We boil these beverages to create a purer form of alcohol
3. Rum, vodka, gin, whiskey, etc... are distilled.

#### Percentage of alcohol by volume

1. Beer is 3-5% pure alcohol
2. Wine coolers are 3-5% pure
3. Wine is 10-12% pure, sparkling wine is 19% pure
4. Distilled spirits (hard Liquor) is 40-50% pure NYS law no more than 75.5% pure

Hard liquor is not measured in % but in proof.

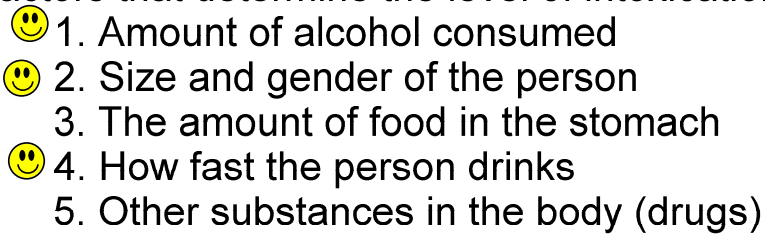
1. Proof is equal to twice the percent  
ex. 100 proof = 50% alcohol  
50 proof = 25% alcohol

#### Typical serving size

1. Beer 12 oz.
2. Wine cooler 12 oz.
3. Wine 5-6 oz.
4. Distilled spirits 1-1.5 oz.

***All of these are equal in alcohol content but not in volume!***

Factors that determine the level of intoxication

- 
- ☺ 1. Amount of alcohol consumed
  - ☺ 2. Size and gender of the person
  - 3. The amount of food in the stomach
  - ☺ 4. How fast the person drinks
  - 5. Other substances in the body (drugs)

Social problems linked to alcohol abuse

- 1. poor decision making
- ☺ 2. illness
- ☺ 3. losing friends
- ☺ 4. accidents
- 5. failing grades
- ☺ 6. injury
- ☺ 7. addiction
- 8. death
- 9. etc...

## How alcohol affects the body

### 1. Brain:

#### Short term effects

- impairs judgment, reasoning, memory, concentration, and reaction time
- coordination decreases, slurred speech, vision and hearing distortions
- eliminates peoples self control (behavior)

#### Long term effects

- ☺ -destroys brain cells, causes nervous system disorders, and memory loss

### 2. Blood vessels:

#### Short term effects

- dialates blood vessels causing a feeling of warmth and loss of body heat.

#### Long term effects

- ☺ -can cause high blood pressure and stroke

### 3. Heart:

#### Short term effects

- ☺ -heart rate and pulse rate are decreased

#### Long term effects

- can cause irregular heartbeat and damage to heart muscle

4. Liver Short term effects

☺ -liver poisoning from excessive alcohol

Long term effects

☺ -cirrhosis of the liver, and liver cancer

5. Stomach

Short term effects

-causes vomiting and choking if a person vomits while unconscious

Long term effects

☺ - causes ulcers and stomach cancer

6. Kidneys

Short term effects

-alcohol causes a diuretic effect (an increase in the flow of urine)

## Signs of Alcoholism

1. Drinks more and more, also becomes drunk often
- 😊 2. Drinks alone
3. Drinking replaces other activities
- 😊 4. Experiences blackouts
5. Personality changes while drunk
- 😊 6. Makes excuses for drinking

## Treatment for alcoholism

- ★ 1. Alcoholics Anonymous (A.A.) group therapy
- 2. Aversion Therapy: the alcoholic takes one of two medicines
  - a. anta-abuse: makes the person violently sick if they drink alcohol
  - b. naltrexone: blocks the craving and the high from the drug

## Treatment for friends and family of the alcoholic

- ★ 1. Al-anon: group therapy for the friends and family members
- 2. Alateen: help for teens of alcoholics
- 3. Alatot: help for kids 12 and under who have alcoholic parents
- 4. Adult children of alcoholics: help for adults raised in an alcoholic family.

Fetal alcohol syndrome (F.A.S.) is caused by a pregnant woman drinking alcohol which causes damage to an unborn baby.

Symptoms: mental retardation, birth defects, slow growth, slow to learn

# Lesson 2: The Nervous System

Words to know

- 😊 **neurons**- cells that make up the nervous system
- central nervous system (CNS)**- the brain and spinal cord
- peripheral nervous system (PNS)**- the nerves that connect the CNS to all parts of the body
- 😊 **brain**- the command center, or coordinator, of the nervous system
- spinal cord**- a long bundle of neurons that sends messages to and from the brain and all parts of the body

## Problems of the Nervous System

- A. injuries to your head, neck, or back
  - 1. a damaged spinal cord could lead to paralysis
- B. Disorders
  - 1. multiple sclerosis (MS)
  - 2. Alzheimer's disease
  - 3. Parkinson's disease
  - 4. etc...
- C. Infections
- D. Alcohol and Drug Abuse



### Taking Care of Your Nervous System

- 😊 A. eat nutritious foods
- 😊 B. 9 hours of sleep
- 😊 C. control stress
- 😊 D. vaccinations
- 😊 E. get exercise
- F. wear protective gear (helmet, seatbelt, etc..)

## Lesson 3: Alcohol Use and Teens

### Words to know

**binge drinking-** the consumption of several alcoholic drinks in a short period of time (usually 5 or more)

**minor-** a person under the age of adult rights and responsibilities

### Why Do Some Teens Use Alcohol

- 😊 1. to escape
- 😊 2. to fit in
- 3. peer pressure
- 😊 4. media
- 5. parents use
- 6. to be more adult
- 😊 7. bored
- 😊 8. addicted
- 9. depression
- 10. etc...

## **Alcohol Can Harm you Mentally/Emotionally** **Physically and Socially!**

Alcohol is illegal to purchase, possess, or consume if you are a minor!

### Lesson 4: Alcohol Use and Society

Word To Know

**violence-** an act of physical force resulting in injury or abuse

Social problems linked to alcohol abuse

- |   |                |
|---|----------------|
| 😊 1. poor decision making   | 😊 2. illness   |
| 3. losing friends   | 😊 4. accidents |
| 😊 5. failing grades   | 😊 6. injury    |
| 7. addiction  | 8. death       |
| 9. illegal activities (Drunk Driving, Date Rape, Abuse, Violence) |                |

### Lesson 5: Saying No to Alcohol Use

1. use refusal skills (S.T.O.P)
2. choose healthy alternatives
3. hang out with drug free friends
4. etc...

## Benefits of Being Alcohol Free

- 😊 A. increased self-respect
- B. high self-esteem
- 😊 C. good Friendships
- D. better Relationships with your family
- 😊 E. control over your life
- F. maintaining a high level of wellness
- 😊 G. a bright future