# ALCOHOL AND ITS EFFECTS

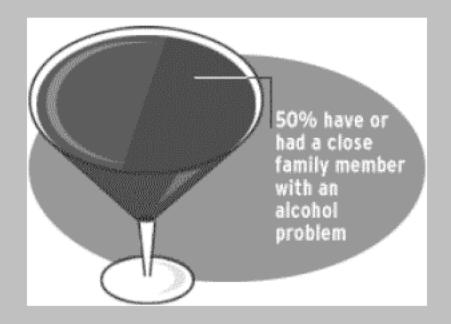


#### Who Uses?

- Alcohol is one of the most commonly used and abused drugs by people of all ages and backgrounds.
- Alcohol is not discriminatory.

### What's in It?

 Ethyl alcohol, or ethanol, is the intoxicating substance in beer, wine, and liquor.



#### **Proof? Percent?**

#### Proof:

 refers to the percentage of pure alcohol in a beverage.

#### For Example:

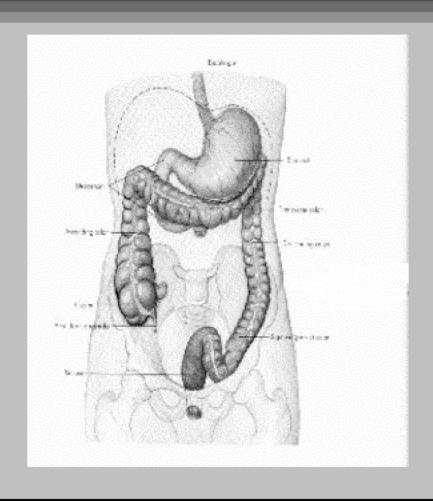
- a 100 proof
  bottle of vodka
  is 50 percent
  alcohol.
- a 80 proof
  bottle of vodka
  is 40 percent
  alcohol.

## Physiological Effects

- Alcohol is a depressant that also acts as an anesthetic in the central nervous system.
- Although a depressant, it has a unique action, which initially creates a feeling of mild and pleasant stimulation.

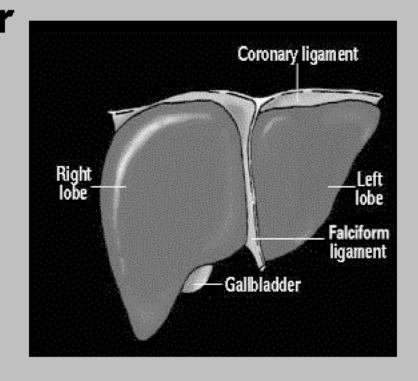
#### The Path of Alcohol

Its quickly absorbed from the stomach and small intestine into the bloodstream and starts to show effects in 5-10 minutes.



#### **How is it Metabolized?**

 It's metabolized or oxidized in the liver at a rate of one-quarter to one-half ounce of pure alcohol per hour.



#### **How is it Metabolized?**

Since each typical drink of beer, wine, wine cooler or distilled spirit contains about half an ounce of pure alcohol, it takes about two hours for the body to fully oxidize one typical alcoholic drink.

# Factors Influencing Alcohol's Effects

- Type of drink.
- How quickly it is drunk.
- Amount of food in stomach.
- Body weight.
- Mental/emotional state.
- Surroundings.
- Physical tolerance.

## Physical Tolerance

- The user's brain and nervous system have become less sensitive to alcohol's effect.
- For example, some people may find that a six-pack of beer is necessary to achieve the same feeling they once attained from drinking two or three beers.

## Physical Dependence

 Characterized by increased tolerance, which requires greater doses of the drug in order to achieve the same effect. When a person is physically dependent on alcohol, withdrawal symptoms appear if the drug is discontinued.

## How to sober up!

 Coffee, cold shower,
 exercise etc...
 DON'T WORK!

TIME is the only remedy!!!

#### **BAC Levels**

- BAC the amount of alcohol in the blood at any time.
- .08 .10 is usually considered legal intoxication.
- U.S. federal law requires states to issue DUI's to drivers that drive with a BAC of .04 or more.
- DWI offences are more severe and usually require a BAC of .08.

#### **BAC Levels**

#### **BAC** Level

.04%-.05%

.08%-.10%

- .2%
- .3%
- .4%-.5%

#### **Effects**

Judgement, speech and motor skills are affected.

Reflexes and judgement are clearly impaired.

Could result in Unconsciousness.

Could result in coma.

Could cause death due to suppression of the brain's breathing center, the cerebellum.

# Acute Alcohol Intoxication

People who drink heavily in a short period of time are risking their lives, because a high BAC can result in AAI (alcohol poisoning).

# Acute Alcohol Intoxication

- The first real danger signs are the typical signs of shock.
- By this time, the drinker is unconscious and cannot be aroused.
- When you recognize the symptoms of AAI, get help at once!

## Long Term Effects

- Can cause fat to accumulate in the liver, which will eventually become non-functional scar tissue, or cirrhosis, the sixth leading cause of adult deaths in the U.S.
- Brain shrinkage noted in 1/2 of all alcoholics. (Also found in heavy social drinkers)

## Fetal Alcohol Syndrome

• Women who drink during pregnancy risk giving birth to an infant with FAS, a disorder that causes heart malformation, joint problems, growth deficiencies and mental retardation.

#### Other Problems

- Other problems could include cancer of the stomach, mouth, tongue and esophagus.
- About 50% of all traffic fatalities are alcohol related, as well as many fires, falls and other mishaps.

## How it kills you

CIRRHOSIS: Fatty, inflamed and scarred liver, Quitting before it gets this bad may make some liver problem go away.

Heart failure: Grows bigger and weaker.

Wernicke-Korsakoff Syndrome: Brain dmage Runlow on B vit thiamin degenerative nerve disorder.

Heart attack:: 6 or more beers/day 6x' risk drop dead

Driving while intoxicated: 40% of all traffic fatalities alcohol related

Murder: 4 of 10 violent crimes booze is a factor

## Help for Alcohol Use

Alcoholism - state of being physically dependent on the drug alcohol. Its symptoms include increased tolerance over time, accompanied by alcohol withdrawal syndrome (sickness, DT's, etc...) if usage stops. Strong desire to continue.

## Help for Alcohol Use

 Alcohol abuse - problem drinking; refers to difficulties in daily living due to drinking too much. Problems include: relationships, academics, job, legal problems such as DWI, etc... Physical dependence may or may not be present.

## Help for Alcohol Use

 There are 12-15 million alcoholics in the U.S. and approximately 24-36 million problem drinkers. People of all social and economic classes abuse alcohol or are alcoholics.

## **Drinking Patterns**

- Drinking patterns normally fall into three categories:
  - social drinker
  - problem drinker
  - alcoholic



### **Social Drinker**

- Typically drink slow and know when to stop drinking. Don't drink to get drunk. They also:
  - eat before or while drinking.
  - never drive after drinking.
  - respect nondrinkers.
  - know and obey drinking laws.

## **Problem Drinking**

- Regularly drink to get drunk and often try to solve problems by drinking. They also frequently:
  - experience changes in mood
  - drink when they shouldn't
    (e.g., driving, before class, etc..)
  - cause problems to others.

## Japanese Proverb

- "First the man takes a drink,
- "Then the drink takes a drink"
- "Then the drink takes the man"

#### Alcoholism

- Spend a lot of time thinking about drinking and planning when and where to get the next drink. They also:
  - hide bottles for quick pick-ups.
  - deny drinking, drink alone.
  - have "blackouts".

#### **Defense Mechanisms**

- Problem drinkers often employ two major defense mechanisms:
  - Minimization
  - Rationalization
- These help the drinker deny the extent of their abnormal behavior.

#### Minimization

- "I only drink on weekends; you only have a problem if you drink everyday"
- "I never miss class no matter how much I drank"
- Now if I drank like Doug, then I would have a real drinking problem"

#### Rationalization

- "My grandfather drinks like a fish and he's never been sick in his life"
- "I'm not hurting anyone else, so back off"
- "Everyone in my family uses alcohol in this way"

#### **Treatment**

- Medical treatment
- Inpatient and outpatient programs
- Therapeutic communities
- Twelve-step programs
- Employee Assistance Programs
- Student Assistance Programs
- Pharmacological approaches