Effects
- Can be additive
- Can be synergistic
- Can reduce effectiveness of drugs
- Can increase risk of other diseases
- Can reduce effectiveness of drugs
- Can increase risk of other diseases
- Can cause overdoses when used with other drugs

Additive Effects
- Benzodiazepines
  - Alcohol binds on different BZ sites than traditional BZ drugs
  - Get an additive effect
  - 5mg Alcohol + 5mg Valium = 10mg of drug in the body
  - Can be dangerous but usually not fatal

Alcohol and Rohypnol
- Creates a synergistic effect
- Produces disinhibition and amnesia
  - Shuts down the hippocampus and prefrontal cortex
- Classic date rape drug
- With alcohol effects can last up to 36 hours

Synergistic Effects
- Barbiturates
  - Is an old combination
    - Mickey Finn
    - Combine alcohol and Phenobarbital
    - Causes unconsciousness
  - Drugs create a multiplicative effect
    - 5mg Alcohol X 5mg of Barb. = 25mg

Flunitrazepam
- Rohypnol
- (Row-hip-nole) or (Flun i traz a pan)
- La roche, R2, Rib, Roach, Roofenol, Roofies, Rope, Rophies, Ruffies
- Is a short – intermediate term BZ agonist
  - Effects can last 8-10 hours
- Is very good hypnotic for insomniacs, also used as anticonvulsants, anxiolytic, amnesic, and a muscle relaxant
- Is odorless and colorless – can be put into ANY drink (water, alcohol, soda’s)
**DRINKING ALCOHOL AND TAKING BARBITURATES EQUALS DEATH**

**GHB**
- Gamma HydroxyButyrate
- Used in medicine as a presurgical anesthetic, sleep aid, amnesic, other
- Is a CNS depressant
- Binds on GHB receptor (G-Protein type) and GABA b receptor (metabotropic K type)

**Ethanol and GHB**
- Very dangerous
  - Difficult to calculate the dose
  - Get synergistic effects
  - Causes CNS depression and death
- Amnesic properties make it prime drug for date rapes.
  - Shuts down the hippocampus.

**Alcohol and Stimulants**
- Examples
  - Cocaine, amphetamine, caffeine, etc
- Masks the effects of alcohol but do not overcome the effects.
  - Creates a wide awake drunk
- Increases the risk for overdose of other drug
- Increases BP, etc.

**Alcohol and Smoking**
- Increases risk for multiple types of cancer
  - Mouth, tongue, throat, etc.
- Similar or even greater risks with marijuana.
- All create irritation

**Alcohol and Antibiotics**
- Slows the response time of the antibiotic and antivirals
- Reduces the effectiveness
  - Is bad news.
- Don't drink when you are sick
  - Decreases your immune system
Alcohol and Opiates
- Vicodin, Oxycontin, Codeine, Hydrocodone, Morphine, etc.
- Further increases depressive effects on Mu receptors
  - Decreased respiration
  - Decreased BP, etc
- Combinations can kill you

Alcohol and OTC Drugs
- Aspirin, Tylenol, Advil, etc
  - Can cause stomach irritation, influence metabolism, etc
- Cough Syrup
  - Many contain alcohol
- OTC Vitamins
  - Reduces effectiveness
- Antihistamines
  - Sudafed, Benadryl
    - Increases drowsiness, slows reaction time

Conclusion
- Ethanol impacts all other drugs
- Causes multiple types of effects