

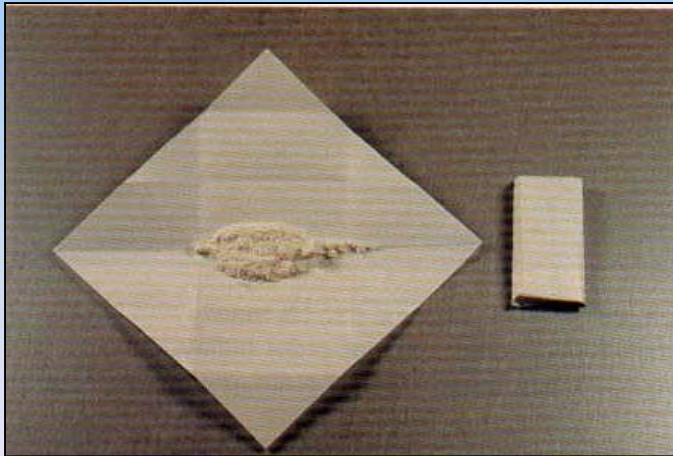
Central Nervous System (CNS) Stimulants



Types of CNS Stimulants

- ❖ Cocaine
- ❖ Amphetamines
- ❖ Others

Cocaine



Cocaine Origin



“Erythroxylon Coca”

Cocaine Origin

- ❖ **Native to South America**
- ❖ **Made from leaves of coca plant**
- ❖ **Small quantities in original Coca Cola**

Amphetamines

- ❖ **First medical purpose in 1920s**
 - **Initial treatment of colds**
 - **Shrink nasal membranes**
- ❖ **Control appetite**
- ❖ **Control narcolepsy**
- ❖ **Control Hyperactive Children**
- ❖ **Relieve/Prevent fatigue**
- ❖ **Treat mild depression**

Amphetamines

- ❖ **Antagonistic effects of depressants**
- ❖ **Prevent/Treat surgical shock**
- ❖ **Maintain blood pressure during surgery**
- ❖ **Treat Parkinson's Disease**
- ❖ **Enhance action of analgesic drugs**

Commonly Prescribed Pharmaceutical Amphetamines

- ❖ **Adderall**
- ❖ **Benzedrine**
- ❖ **Desoxyn**
- ❖ **Dexedrine**



Illicit Amphetamines



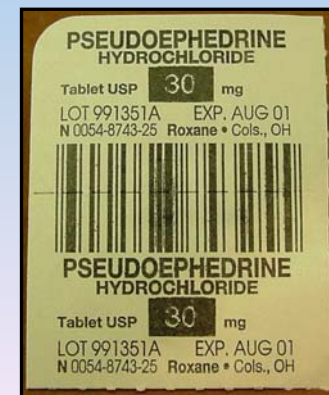
Methamphetamine



Amphetamine Sulfate

Other CNS Stimulants

- ❖ Caffeine
- ❖ Cathine and Cathinone
 - Khat
 - Flakka (Gravel)
- ❖ Ephedrine
- ❖ Ritalin



Bath Salts

- ❖ Chemically similar to Amphetamines
- ❖ Has anesthetic properties
- ❖ Symptomology similar to PCP
- ❖ Mephedrone



Methods of Ingestion



Insufflation



Smoking



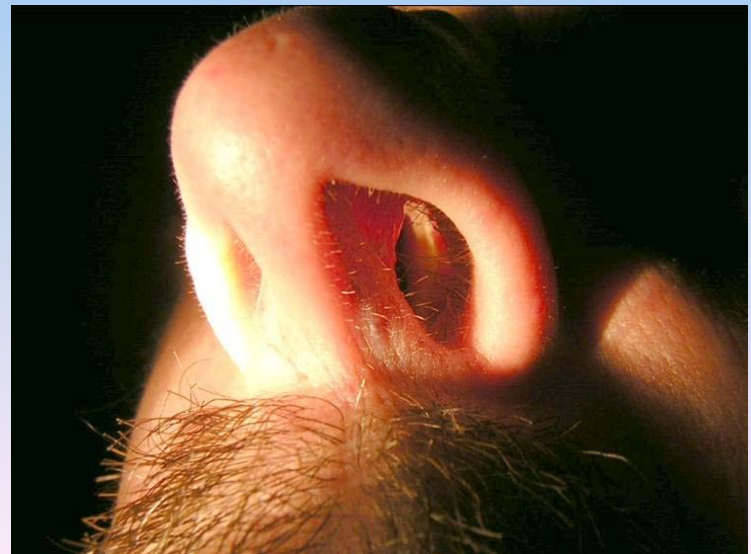
Orally



Injection

Signs of Ingestion

- ❖ Perforated septum
- ❖ Powder residue in nasal cavity
- ❖ Blisters on lips and tongue
- ❖ Injection track marks
- ❖ Raised taste buds



General Indicators

- ❖ Euphoria
- ❖ Hyperactivity
- ❖ Inability to concentrate
- ❖ Misperception of time and distance
- ❖ Relaxed inhibitions
- ❖ Restlessness
- ❖ Talkative
- ❖ Anxiety
- ❖ Dry mouth
- ❖ Bruxism
- ❖ Irritability
- ❖ Increased alertness

Cocaine Onset and Duration

❖ Smoked

- **Virtually immediate effects**
- **Very intense “rush”**
- **Effects last 5-10 minutes**

❖ Injected

- **Effects are felt within seconds**
- **Very intense “rush”**
- **Effects last 45-90 minutes**

❖ Snorted

- **Effects are felt within 30 seconds**
- **Intense “rush”**
- **Effects last 30-90 minutes**

❖ Orally

- **Effects begin within 3-5 minutes**
- **Effects are less intense**
- **Effects last 45-120 minutes**

Methamphetamine Onset and Duration

❖ Smoked

- Virtually immediate effects
- Very intense “rush”
- Effects last 4 – 8 hours

❖ Injected

- Effects felt within seconds
- Very intense “rush” 5-30 sec
- Effects last up to 12 hours

❖ Snorted

- Effects take longer
- Less intense “rush”
- Effects last briefer

❖ Orally

- Effects take longer
- Less intense “rush”
- Effects last briefer

Overdose Signs

- ❖ **Confused and aggressive**
- ❖ **Convulsions, faint or pass out into coma**
- ❖ **Pulse rapidly increase**
- ❖ **Hallucinations may occur**

Drug Matrix Chart

| | |
|----------------------------|----------------|
| HGN | None |
| VGN | None |
| LACK OF CONVERGENCE | None |
| PUPIL SIZE | Dilated |
| REACTION TO LIGHT | Slow |
| PULSE RATE | Up |
| BLOOD PRESSURE | Up |
| BODY TEMPERATURE | Up |
| MUSCLE TONE | Rigid |