

Recreational Drugs

- Opioids
- Psychostimulants
- Sedatives and hypnotics
- Cannabis
- Hallucinogens
- Inhalants
- Phencyclidine
- Anticholinergics
- Ethanol
- Tobacco

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Opioid Sources

- • Camphorated tincture of opium (paregoric)
- • Morphine (morphine sulfate injection; MS Contin)
- • Heroin
- • Methadone (Dolophine)
- • Fentanyl (Sublimaze; Duragesic Patch; Actiq)
- • Hydromorphone (Dilaudid)
- • Codeine
- • Oxycodone (Oxy-Contin; in Percocet, Percodan)
- • Meperidine (Demerol)
- • Propoxyphene (Darvon)

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Opioids

- Intoxication
 - ◆ euphoria, analgesia, miosis, and often nausea, vomiting, sweating, and pruritus.
- Overdose
 - ◆ Coma, respiratory depression/failure and pinpoint and reactive pupils
 - ◆ T(x): naltrexone 2 mg PRN (up to 20 mg)
- Withdrawal
 - ◆ irritability, lacrimation, rhinorrhea, sweating, yawning, mydriasis, myalgia, muscle spasms, vomiting, abdominal cramps, fever
 - ◆ Seizures and delirium not common

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Psychostimulants

- Dextroamphetamine
- Methamphetamine
- Ephedrine
- Pseudoephedrine
- Methylphenidate (Ritalin)
- Methylenedioxymethamphetamine (MDMA, “ecstasy”)
- Cocaine

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Psychostimulants

- Intoxication
 - ◆ Cocaine: sniffed, injected or smoked (crack)
 - ◆ Methamphetamine: injected or smoked (“ice”)
 - ↳ Think rural and midwest
 - ◆ MDMA: oral
 - ↳ Think college, rave parties, etc
- Overdose
 - ◆ delirium, tachycardia, hypertensive crisis, malignant hyperthermia, cardiac arrhythmia, myoclonus, seizures, myoglobinuria, shock, coma, and death

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Sedatives

- Barbiturates
- Benzodiazepenes
- Hypnotics
- Gamma-hydroxybutyric acid
 - ◆ “Date Rape Drug” also common at “Raves”
- Intoxication: euphoria and drowsiness
- Overdose: coma and respiratory depression
- Withdrawal: agitation, tremor and seizures

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Cont Recreational Drugs

- Cannabis
 - ◆ euphoria, depersonalization, subjective time-slowng, conjunctival injection, tachycardia
- Hallucinogens (mescaline from peyote, LSD, psycilin from 'shrooms)
 - ◆ tremor, depersonalization, altered mood, and perceptual distortion and hallucinations—usually formed and vivid (tripping)
- Dissociative anesthetics (Phencyclidine PCP – ‘angel dust’ and ketamine)
 - ◆ euphoria or dysphoria and a feeling of numbness. Higher doses cause agitation, hypertension, paranoid or catatonic psychosis, myoclonus, seizures, rhabdomyolysis, coma, respiratory depression, and death

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Neurological Consequences

- Brain, spinal cord, PNS trauma
 - ◆ Mechanical injury or falls
 - ◆ Pressure palsy resulting from prolonged immobilization during intoxication
- Infection
 - ◆ HIV, HTLV, Botulinum, Tetanus
 - ◆ Cerebral abscess, stroke from endocarditis
- Seizures
 - ◆ Indirectly: trauma, stroke or infection
 - ◆ Cocaine, MDMA, methamphetamine, GHB intoxication
 - ◆ Alcohol withdrawal

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Neurological Consequences

- Stroke
 - ◆ Indirect: trauma, infection, etc
 - ◆ Direct: Cocaine
 - MDMA: ICH
 - Methamphetamine: ICH and vasculitis
- Long Term Cognitive Deficits
 - ◆ Causative vs. pre-existing psychiatric disease
 - ◆ LSD: “flashbacks”
 - ◆ Marijuana: cognitive impairment – amotivational syndrome
 - ◆ Dextroamphetamine: damages DOPA terminals
 - ◆ MDMA: damages serotonin terminals
 - ◆ Methamphetamine: DOPA and serotonin

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Miscellaneous Consequences

- Neuropathy and plexopathy in heroin users
 - ◆ ? Immunologic reaction to additive
- Rhabdomyolysis with cocaine, PCP and methamphetamine
- B12 like myeloneuropathy in NO sniffers
- Parkinsonism in meperidine contaminated with MPTP
- “Chasing the dragon”
 - ◆ Inhalation of heroin vapors heated on foil
 - ◆ Spongiform leukoencephalopathy – spastic quadriparesis, dystonia, myoclonus, blindness, and death

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