

General Classification

Downers are Central Nervous System (CNS) depressants.

The three major depressants are:

- opiates/opioids,
- sedative-hypnotics, and
- alcohol.

The four minor depressants are:

- skeletal muscle relaxants,
- antihistamines,
- over-the-counter sedatives, and
- look-alike sedatives.

Benzodiazepines

- Benzodiazepines: alprazolam (Xanax), diazepam (Valium), clonazepam (Klonopin), temazepam (Restoril), and lorazepam (Ativan).
- Benzodiazepines are usually used medically to manage anxiety, treat sleep problems, control muscular spasms and seizures, and subdue the symptoms of alcohol withdrawal.
- Benzodiazepines work on the inhibitory transmitter GABA as well as Serotonin and dopamine.
- Benzodiazepines can stay in the body for days, even weeks.
- The memory loss caused by benzodiazepines, especially Rohypnol, is sometimes used to take sexual advantage of a woman.

Barbiturates

- Barbiturates include: Seconal (“reds”), Nembutal (“yellows”), and Phenobarbital.
- These drugs are mostly used to control seizures, induce sleep, and lessen anxiety but benzodiazepines and other psychiatric drugs have replaced their use over the past 40 years.

Other Sedative-Hypnotics

- GHB effects include sedation and euphoria. GBL is also used in the same way as GHB.
- Non-barbiturate sedative-hypnotics include street methaqualone (Quaalude), meprobamate (Miltown, Equanil), and ethchlorvynol (Placidyl).
- Methaqualone (Quaalude) is only available from illicit sources. The drug causes an overall sedation, mild euphoria, and suppression of inhibitions.

Downers

*Employee Assistance Program
Educational Series*

Opiates/Opioids

- Opiates (from the opium poppy) and opioids (synthetic versions of opiates) were developed for the treatment of acute pain, to control diarrhea, and to suppress coughs.
- Opiates: opium, morphine, codeine, heroin, hydrocodone, hydromorphone (Dilaudid), and oxycodone (Percodan). Opioids include methadone, propoxyphene (Darvon), meperidine (Demerol), and fentanyl.

Effects of Opioids

- Opiates/Opioids mimic the body's own natural painkillers, endorphins and enkephalins.
- Opiates/Opioids can also cause euphoria by stimulating the reward/pleasure center. The satiation switch can be disrupted by opioids. The drugs also control diarrhea and suppress the cough mechanism.

Side Effects of Opioids

- Opioids mask pain signals, depress heart rate, slow respiration rate, depress muscular coordination, increase nausea, induce pinpoint pupils, cause itching, and cause mental confusion.
- A physical tolerance to opioids develops rapidly, increasing the speed with which the body becomes physically dependent on the drug.
- Withdrawal from opioids is like an extreme case of the flu. People do not usually die from opiate/opioid withdrawal, although they can die from overdose

Additional Problems with Heroin & Other Opioids

- Opioids cross the placental barrier and affect fetuses. Babies can be born addicted to opioids and can die from opioid withdrawal.
- Overdose kills 3-4,000 heroin users each year, mostly through extreme respiratory depression.
- Contaminated needles transmit hepatitis C and HIV in increasing numbers. Injecting heroin also causes abscess (skin infections). Endocarditis, cotton fever, and flesh-eating disease also occur.
- Adulteration of drugs, the high cost of addiction (up to \$200 a day), and the dangers of polydrug use add to the dangers of use.
- The age of first use of heroin has decreased dramatically over the past five years (21 to 17 years old).
- The progression from experimentation to physical dependence can occur in a month or two.
- Addiction depends more on other factors such as genetics and early environment.
- Most returning Vietnam veterans who had developed physical dependence while in Vietnam did not continue use showing that addiction is much more than just physical (tissue) dependence.

Morphine & Heroin

- Morphine, the standard for severe pain relief, can be taken by mouth, by injection, or by suppository. The therapeutic use of opioids for pain is subject to much controversy. Some doctors under prescribe due to fear of patient addiction.
- "China white" heroin from Asia, Mexican "black tar" heroin, and recently Colombian white heroin are the most widely used in the United States.
- Heroin can be injected, smoked, or snorted. All three methods of use are very addictive.

Other Opioids

- Codeine, refined directly from opium, used to be the most widely used and abused prescription opioid.
- Hydrocodone, a synthetic version of codeine, has become the most widely used and abused prescription.
- Methadone is a longer-lasting opioid that heroin addicts use to avoid withdrawal and the addicting highs caused by heroin use.
- A number of synthetic and semi synthetic opioids, such as hydromorphone (Dilaudid), oxycodone (Percodan), meperidine (Demerol), propoxyphene (Darvon), and fentanyl, have made their way to the illicit market. Highly potent synthetic heroin designer drugs (fentanyl and Demerol derivatives) have appeared on the street, thus increasing the danger of overdose.
- Other drugs used to treat opiate/opioid addiction are LAAM, a long-acting opioid, naloxone, and naltrexone (opioid antagonists), buprenorphine, and clonidine.

Sedative-Hypnotics Classification

- The two main groups of sedative-hypnotics are barbiturates and benzodiazepines.
- Sedatives (minor tranquilizers) are calming drugs used mostly to treat anxiety.
- Hypnotics are mainly used to induce sleep.