# HANDOUT P/C/P-4.3 What Can Drugs Do?

According to the National Institute on Drug Abuse, there are many ways that drugs can affect your body:

# TOBACCO

People who use tobacco products (such as cigarettes and "dip") are exposed to multiple risks—not only from addiction to nicotine, but also from the health risks of smoking tobacco. Cigarette manufacturers add up to 600 chemicals to tobacco, which can lead to cancer of the mouth, esophagus, and pancreas. When a person smokes, the toxic chemicals from the tobacco are inhaled along with tars and carbon monoxide; this can lead to heart disease, lung cancer, and emphysema. Tobacco also decreases stamina and can stain teeth, wrinkle the skin, and result in chronic halitosis (i.e., bad breath). Even using electronic cigarettes, one is still at risk of addiction to nicotine. While e-cigarettes may minimize the dangers from smoking, their use has been associated with heavier use of regular cigarettes in youth. Women who smoke while pregnant may have babies that are smaller and weigh less at birth. These infants are at greater risk for dying of sudden infant death syndrome (SIDS).

### HALLUCINOGENS

#### Marijuana

Marijuana, a mild hallucinogen, can cause short-term problems including the impairment of coordination, concentration, and short-term memory. Long-term use may lead to a lack of energy and motivation, and impairment of memory. These effects may linger even after the user stops using the drug. Also, heavy use appears to produce approximately the same lung and cancer risks as smoking five times as much tobacco (i.e., cigarettes). As with tobacco, lung damage and the risk of cancer are significant hazards of marijuana use.

#### Synthetic Marijuana

Commonly known as Kush, K2, Spice, or herbal incense, this is not one specific drug. More than a hundred different chemical structures—with as many different names—fit under this broad category. They also vary in strength. The most frequent problems experienced are increased heart rate and blood pressure, vomiting and tremors, and acute kidney injury that can result in kidney failure. Since this drug falls under the category of hallucinogens, disorientation, paranoia, hallucinations, and psychosis are also frequent negative effects experienced.

#### Synthetic Dissociative Anesthetics

Drugs such as PCP ("angel dust," "wet") and Ketamine (Special K) can also cause hallucinations, loss of touch with reality, and flashbacks. Both can result in impaired motor functioning and muscle rigidity. PCP and higher doses of Ketamine can cause dizziness, speech problems, nausea, and vomiting. PCP at higher doses and Ketamine can result in death. Ketamine combined with alcohol or benzodiazepines can be especially lethal.

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## STIMULANTS

#### Cocaine/Crack

Using cocaine can produce irritability, mood disturbances, restlessness, paranoia, and auditory hallucinations. Cocaine use has been linked to many types of heart disease. Cocaine has been found to trigger chaotic heart rhythms and heart attacks; accelerate heartbeat and breathing; and increase blood pressure and body temperature. Physical symptoms may include chest pain, nausea, blurred vision, fever, muscle spasms, convulsions, and coma. In addition, strokes, seizures, and headaches are not uncommon in heavy users.

Regularly snorting cocaine can lead to loss of sense of smell, nosebleeds, problems with swallowing, hoarseness, and an overall irritation of the nasal septum, which can lead to a chronically inflamed, runny nose. Longer periods of snorting cut off the blood flow in the nostrils and can cause membranes to die, resulting in a hole in the septum. The hole typically does not heal on its own but can sometimes be repaired. The worst-case scenario is the collapse of the entire nose.

Ingested cocaine can cause gangrene (the death of soft tissue) in the intestines due to reduced blood flow in the digestive tract. People who inject cocaine may also experience an allergic reaction, either to the drug or to some additive, which can result in death. Because cocaine often causes reduced food intake, many chronic cocaine users lose their appetites and can experience significant weight loss and malnourishment.

#### Methamphetamine

Methamphetamine can cause many types of cardiovascular problems. These include rapid heart rate, irregular heartbeat, increased blood pressure, and irreversible, stroke-producing damage to small blood vessels in the brain. Chronic methamphetamine use can also result in inflammation of the heart lining and, among users who shoot up, damaged blood vessels and skin abscesses. Psychotic symptoms can sometimes persist for months or years after use has ceased. Also, research indicates that meth use during pregnancy may result in prenatal complications, increased rates of premature delivery, and altered behavioral patterns in the infant, such as abnormal reflexes and extreme irritability.

### Designer Drugs

Synthetic stimulants include such drugs as MDMA (Molly or Ecstasy), "bath salts," or cathinones (a synthetic form of the chemical found in the khat plant), and others. Bath salts are a combination of two powerful stimulants that, instead of wearing off after a couple of hours, can continue to produce full effects for days or even weeks. Agitation, increase in body temperature, and excessive sweating, as well as increased heart rate and blood pressure, are all possible side effects. Seizures are common. Individuals may experience hallucinations and paranoia, tear their clothes off, and try to tear off parts of their body. Suicides have occurred.

As with bath salts, MDMA's adverse effects can last a week or more after using the drug; depression is common after using it. Taken in higher amounts, MDMA can produce anxiety, muscle cramping, and nausea. The drug can result in a large increase in body temperature and high blood pressure, as well as kidney and heart failure. Death can occur, usually from heatstroke and dehydration.

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# HANDOUT P/C/P-4.3. What Can Drugs Do? (page 3 of 3)

### **OPIATES**

#### Heroin

Chronic heroin abuse can result in scarred and/or collapsed veins, bacterial infections of the blood vessels and heart valves, abscesses (boils) and other soft-tissue infections, and liver or kidney disease. Lung complications (including various types of pneumonia and tuberculosis) may result from the poor health condition of the abuser as well as from heroin's depressing effects on respiration. Sharing needles can lead to some of the most severe consequences of heroin abuse—infections with hepatitis B and C, HIV, and many other blood-borne viruses, which drug users can then pass on to their sexual partners and children.

#### **Other Opiates**

These include prescription drugs such as fentanyl, codeine (cough syrup, Vicodin, and Lortab), methadone, and oxycodone (OxyContin, Percocet). All affect the body by slowing down the central nervous system, which regulates breathing and heart rate. Taken alone or in conjunction with alcohol or benzodiazepines, they can result in overdose, since all of these substances are depressants. Signs of overdose include shallow breathing, cold skin, blue lips or fingertips, or loss of consciousness. Nausea, vomiting, and constipation can also result.

### DEPRESSANTS/SEDATIVES

These prescription drugs are primarily benzodiazepines such as Xanax, Klonopin, Ativan, Valium, or barbiturates. Short-term effects can include impaired vision, motor coordination, and speech as well as confusion and impaired thinking. Breathing can become depressed and may result in coma or death, especially when these drugs are combined with alcohol.