# **EMPLOYEE EDUCATION INFORMATION**

**To meet requirements of 49 CFR Part 382.601 -** FMCSA/DOT Drug and Alcohol Testing Program

Prepared by: DISA Indiana (Midwest Toxicology Services), 603 East Washington Street, Suite 200, Indianapolis, IN 46204, 317/262-2200 800/358-8450

# WHAT ARE THE POSSIBLE EFFECTS OF ALCOHOL AND CONTROLLED SUBSTANCE USE ON AN INDIVIDUAL'S HEALTH, WORK AND PERSONAL LIFE?

Substance abuse can destroy your family, your livelihood, your life. The total cost to society - to you and me as taxpayers - is still impossible to calculate. The cost in the workplace (not including medical costs, prison, or law enforcement costs), is estimated to be between \$60 and \$100 billion per year. Some experts say between 10 and 30 percent of all U. S. workers use drugs on the job. They estimate that as many as 65 percent of young people coming into the work force have at one time or another used drugs.

Facts about employees who misuse drugs:

- likely to be late more than three times as often as a non-user
- absenteeism is 66% higher among drug users than non-users
- will make use of health benefits at least three times more than a non-user
- 5 times more likely to file claims for worker's compensation
- almost four times as likely to be involved in an accident on the job
- it is estimated drug-users are 1/3 less productive

# **EFFECTS OF ALCOHOL**

Alcohol is a legal substance that is used by many people. It is a socially accepted drug that has been consumed throughout the world for centuries. Often considered a recreational beverage when consumed in moderation for enjoyment and relaxation during social gatherings. However, when consumed primarily for its physical and mood-altering effects, it is a substance of abuse. As a depressant, it slows down physical responses and progressively impairs mental functions. The intent of the DOT rule is to realize that even small amounts of alcohol affect us and our job performance and to prevent its use or possession by people performing safety sensitive jobs.

#### Body metabolism of alcohol:

When beverages or medicines containing "alcohol" are ingested, the "alcohol" is absorbed through the mucous membrane of the mouth, stomach, and small intestines. Absorption is influenced by the amount and type of food in the stomach, the size of the person, and the period of time and amount of the "alcohol" ingested. For example, a person who weighs 160 pounds with a full meal containing fats and proteins who drinks a six pack of beer over a period of several hours will take longer to absorb and to reach the same blood alcohol level as a person who weighs 100 pounds and drinks a six pack of beer on an empty stomach in one or two hours. Alcohol is transported by the circulatory system to all areas of the body. It is detoxified in the liver by the process of oxidation. **Detoxification occurs at the rate of about one ounce of alcohol per hour regardless of the amount in the body.** One ounce of alcohol is contained in twelve ounces of beer (5% alcohol content), 5 ounces of wine, or 1.5 ounces (shot) of 80 proof beverage - each have the same content of about 10 grams of ethyl alcohol. For every serving of beer, wine, or liquor in the amounts above, it will take the liver about one hour to process each ounce of alcohol out of the blood.

<u>Signs and Symptoms of Use:</u> Note: Except for the odor, these are general signs and symptoms of any depressant substance.

- Dulled mental processes
- Lack of coordination
- Odor of alcohol on breath
- Possible constricted pupils

#### **Health Effects:**

The chronic consumption of alcohol (average 3 drinks per day) may result in the following health hazards.

- The liver is the primary site of alcohol metabolism and can be severely affected by heavy alcohol use.
- Heavy alcohol use can severely affect the gastrointestinal tract, contribute to inflaming the esophagus, exacerbating peptic ulcers, and cause acute and chronic pancreatitis.
- Contributes to malnutrition as alcohol interferes with absorption of nutrients from food.
- Heavy alcohol use affects the heart and vascular system, contributing to heart attacks, hypertension and strokes.
- Either direct or indirectly through malnutrition, liver disease or other effects it causes, alcohol depresses immune system functioning and increases the likelihood of infection.
- There is considerable evidence that alcohol abuse is associated with the incidence of cancer, particularly cancers of the liver, esophagus, nasopharynx and larynx.
- Heavy alcohol consumption causes brain damage manifested through dementia, blackouts, seizures, hallucinations, and peripheral neuropathy.

#### Social Issues:

- About two in every 5 Americans will be involved in an alcohol-related vehicle accident during their lifetime.
- The risk of a traffic fatality per mile driven is at least eight times higher for a drunk driver than for a sober one.
- Falls are the most common cause of nonfatal injuries in the U.S., and the second most common cause of fatal accidents. Estimates of the involvement of alcohol in these falls range from 20 to 80 percent. A BAC between .05 and .10 increases the likelihood of a fall by 3 times. Between .10 and .15, it increases by 10 times, and above .16, it increases by 60 times.
- Research indicates that over 60 percent of those killed in nonvehicular fires have BACs over .10.
- Up to 40 percent of industrial fatalities and 47 percent of industrial injuries can be linked to alcohol consumption and alcoholism.
- Approximately 38 percent of those who drown have been exposed to alcohol at the time of their death.
- Between 20 and 36 percent of suicide victims have a history of alcohol abuse or were drinking shortly before their suicides.
- Alcohol also plays a significant role in crime and family violence, including spousal and child abuse.

#### **Alcohol Impairment and Driving:**

- Alcohol consumption is associated with a wide range of accidents and injuries resulting from the impaired performance of complex mental and motor functions.
- Relationship between alcohol and motor vehicle crashes is well known.
- Studies show gross affects on
  - o cognitive skills, such as information processing, and
  - o **psychomotor skills**, such as eye-brain-hand coordination.
- Impairment is related to alcohol in terms of its concentration in the bloodstream.
- Low to moderate BACs (.03 to .05%) interfere with voluntary eye movement, impairing the eye's ability to rapidly track a moving target.
- Significant impairment in steering ability may begin as low as .035%.
- Drivers with a BACs of .04% or greater will need more time to read signs and respond to traffic signals
- Driving requires attention to multitasks driver must maintain proper lane and directions while
  monitoring other vehicles, traffic signals and pedestrians. Alcohol impaired subjects who are required
  to divide their attention between two tasks tend to favor one of them. Therefore, alcohol impaired
  drivers tend to concentrate on steering, becoming less vigilant with respect to safety information.
  Numerous studies indicated that divided attention deficits occur as low as .02% BAC.

# **Conclusion:**

It takes very little alcohol in the body to begin to have an effect on the ability to perform safely. Every driver must be responsible for driving safely whether in a personal vehicle or commercial vehicle. That responsibility may mean an adjustment in personal activities in order to be safe behind the wheel of a vehicle. Commercial drivers have the mandatory responsibility to abstain from alcohol four hours prior to

driving. All drivers must consider their responsibility and make a conscious decision when it comes to alcohol and driving.

**Also remember -** Alcohol in any form has the ability to impair performance and judgment. Even if you ingest alcohol by using cough medicine, mouthwash, foods and desserts or a sleeping aid, your brain doesn't know the difference.

# 9 Signs of Substance Abuse:

- 1. Increased tolerance to alcohol "I can drink them under the table."
- 2. Occasional or partial memory lapse "Did I really do that last night?"
- 3. Drinking beyond one's intentions "Boy did I get smashed! I should have eaten something."
- 4. Increased dependence on alcohol and/or drugs "I can't wait...got to have a quickie."
- 5. Sneaking drinks or drugs "I needed that extra hit ...who's to know?"
- 6. Preoccupation with alcohol or drugs "Election day tomorrow...better pick up a bottle. Have to celebrate (whatever)."
- 7. Resentful whenever one's drinking or drug use is discussed "It's no ones business...! can handle it."
- 8. Futile, frustrating attempts to get clean and sober "This time I'll do it...I just have to."
- 9. Rationalizing one's loss of control "If they had my problems, they'd do it, too."

# **The Warning Signs of Alcoholism**

- Increased difficulty at home. Conflicts, absences, disappearances, and discrepancies.
- Significant emotional and behavioral changes. Family, friends, and co-workers concerned about behavior.
- Unexplained absenteeism at work. Isolates and withdraws.
- Alterations in lifestyle to accommodate alcohol use. Lies about use.
- Frequent illness. Need for medication/over-prescribing.
- Legal and financial problems. DUI's, lawsuits, debts, etc.
- Difficulties with co-workers and customers.
- Continued use of alcohol with elaborate justification for need.

#### **EFFECTS OF DRUGS:**

# **MARIJUANA INFORMATION:**

Marijuana is one of the most misunderstood and underestimated drugs of abuse. People use marijuana for the mildly tranquilizing and mood and perception altering affects it produces. Its action is almost exclusively on the brain, altering the proper interpretation of incoming messages.

#### **Description:**

- Marijuana is derived from the hemp plant Cannabis Sativa. It is made from the leaves, small stems, and the flowering tops of the Cannabis sativa plant. Possession and distribution are illegal. Marijuana and hashish are Schedule 1 drugs.
- A marijuana plant normally has an odd number of leaflets per stem, such as 5, 7 or 9, and can grow up to 20 feet high. Prepared marijuana resembles coarsely ground oregano or thyme. In loose form, it is generally packaged in small plastic sandwich bags. In brick form, large pieces of marijuana, twigs, stalks and seeds are compressed into blocks, called "kilobricks," measuring 5 inches x 2-1/2inches x 12 inches.
- THC or delta-9-tetra-hydrocannabinol is also called pot, grass, weed, joint, nail, refer, blunt, herb, skunk, lb's, kilos, smoke, roach, dope, ganja, Mary Jane, sinsemilla, boom, Acapulco gold, Mexican dirt pit and Thai sticks.
- It is usually smoked in a loosely-rolled joint. It is also smoked in pipes, ingested in foods, such as brownies and cakes, or brewed into a "tea." Another product, called a blunt, is made by slicing open a cigar and replacing most of the tobacco with marijuana and smoking it. It has a sweet, lingering odor.

### Other derivatives of the hemp plant:

- <u>Hashish:</u> The dark brown resin from the top of the hemp plant has significant higher levels of THC, and often is compressed into a variety of forms such as "cakes" or pills.
- <u>Hashish Oil:</u> A dark brown liquid extracted from marijuana, can contain as much as 20% THC. The oil is often dropped onto commercial cigarettes which are then smoked.

#### Immediate Effects

- Reddened eyes
- Increased heart rate
- Dry mouth and throat

# **Chronic and Long Term Effects**

- Reduction in efficiency of the respiratory, cardiovascular, reproductive and immunological systems
- Impaired short-term memory
- Altered sense of time
- Slowed reaction time
- Reduced ability to concentrate
- Psychological dependence
- Impaired motor skills
- Addiction

# **Effect on Driving:**

- Impaired reaction time. Reaction time is increased, and braking time is slowed. Thinking and reflexes are slowed, making it difficult to respond to sudden, unexpected events.
- Impaired short-term memory. The learning process is slowed. Remembering a sequence of numbers or memorizing and following a series of directions becomes difficult.
- Reduced concentration. Inability to display continuous attention or process complex information occurs. There is difficulty with complex decisions.
- Impaired tracking. The act of following a moving stimulus is significantly and consistently diminished. Tracking can be affected up to ten hours after use.
- Distorted time and distance sense. The ability to perceive accurately the passage of time is adversely affected. The user typically over estimates the time that has elapsed.
- Lack of control of vehicle velocity and proper positioning. Responding to wind gusts, driving through curves, and maintaining speed and proper following distance are impeded.
- Lengthened glare recovery and blurred/double vision.
- Distorted visual and depth perception. Confusion is created about traffic movement and appropriate driver response.

#### Workplace Issues:

- The active chemical, THC, is stored in body fat and slowly releases over time. Marijuana smoking has a long-term effect on performance.
- A 500 to 800 percent increase in the THC potency in the past years makes smoking three to five joints a week today equivalent to 15 to 40 joints a week back in 1978.
- Smoking one" joint" (cigarette) can impair driving ability for at least 4 to 6 hours.
- Combining alcohol or other depressant drugs and marijuana can produce a multiplied effect, increasing the impairing effects of both the depressant and marijuana.

# **COCAINE INFORMATION – STIMULANT DRUG**

The most powerful central nervous system stimulant known to mankind. Cocaine has been used medically as a local anesthetic. It is abused as powerful physical and mental stimulant.

#### **Description:**

- Cocaine is derived from the coca bush, grown almost exclusively in the mountainous regions of northern South America. The U.S. consumes 75% of the world's cocaine.
- Cocaine Hydrochloride "snorting coke" is a white to creamy granular or lumpy powder that is chopped into a fine powder before use. It is snorted into the nose, rubbed on the gums or injected in veins. The effect is felt within minutes and last 40 to 50 minutes per "line" (about 60 to 90 milligrams). Common paraphernalia includes a single-edged razor blade and small mirror or piece of smooth metal, a half straw or metal tube, and small screw-cap vial or folded paper packet containing the cocaine.
- Cocaine Base "rock, crack or free base" is a small crystalline rock about the size of a small pebble. It boils at a low temperature, is not soluble in water, and is up to 90 percent pure. It is heated in a glass pipe

and the vapor is inhaled. The effect is felt within seven seconds. Common paraphernalia includes a "crack pipe" (a small glass smoking device for vaporizing the crack crystal) and a lighter, alcohol lamp or small butane torch for heating.

# **Immediate Effects**

- Euphoria
- Dilated pupils
- Increase in blood pressure, heart rate, respiration rate, and body temperature

### **Chronic and Long Term Effects**

- Short attention span
- Irritability, anxiety, and depression
- Seizure and heart attack
- Loss of appetite and sleeplessness
- Psychological problems and dependence
- Hallucinations of touch, sight, taste, and/or smell

# **Effects on Driving:**

- Lapses in attention and concentration. Driving awareness is adversely affected regardless of the amount used.
- Aggressive behavior. The resulting manifestations are anger and hostility toward other drivers also impatience and inappropriate risk-taking. The driver often overreacts to minor traffic irritations.
- Tendency to overreact and overcompensate. Acceleration, braking, shifting, etc. are affected by over stimulated reflexes.
- Impaired motor coordination. A decrease in hand-steadiness and eye/hand coordination affects proper driving response.
- Periods of loss of consciousness. Caused by fatigue due to lack of sleep and food.
- Impaired judgment.
- False sense of alertness and security. Drivers become overly confident in driving judgment and skill. This affects their ability to perceive impending danger.
- Convulsions, seizures, cardiac arrest and/or stroke easily resulting in a collision.
- Distorted vision and difficulty in seeing. The pupils are so dilated that sunlight or bright headlights cause pain and discomfort. Glare recovery is also affected.
- Auditory and visual hallucinations as well as cocaine psychosis. Changes in perception are experienced. The driver is out of touch with reality and loses sight of where he is going.
- Profound depression, anxiety, irritability, and restlessness. Cocaine is a fast-acting drug. The euphoria ends in less than an hour. The user is more depressed after using cocaine than before use. The higher the "high", the lower the "low".

#### **AMPHETAMINES INFORMATION - STIMULANT DRUG**

Drugs which are central nervous system stimulants are used to increase alertness and physical activity. The physical sense of energy at lower doses and the mental exhilaration of higher doses are the reasons for their abuse. Although widely prescribed at one time for weight reduction and mood elevation, the legal use of amphetamines is now limited to a very narrow range of medical conditions. Most amphetamines that are abused are illegally manufactured in foreign countries and smuggled into the U.S. or manufactured in clandestine crude laboratories. Mobile labs are of concern and a problem for law enforcement officers today.

# **Description:**

- Amphetamines are chemically manufactured drugs which stimulate the central nervous system and excite functional activity in the human body. Examples of prescriptions that contain amphetamine include: Adderall, Dexedrine, Biphetamine, Didrex.
- Amphetamines come in the form of capsules, pills, or tablets and vary in shapes, sizes, and color.
   Amphetamines can be swallowed, injected, or inhaled into the nose.
- Nicknames include: speed, uppers, bennies, dexies, black beauties, pep pills, meth, crystal meth, crystal crank, wakeups, co-pilots, bumblebees, hearts, footballs, robin's eggs, bird eggs, white crosses, ice snot, cat, khat, speed, meth, pep pill, peaches, cartwheels, and sky-rockets.
- Other forms:

- Methamphetamine (ice, crank, crystal, meth, chalk) a stimulant and a derivative of amphetamines. Similar effects on the central nervous system, but enters the brain much more quickly than other amphetamines and is therefore highly addictive. "Meth" comes in several forms (white powder, pills, and crystal like "rock"), and can be swallowed, injected, or smoked (ice).
- Ice a crystallized form of methamphetamine that is smoked and results in a high of over 12 hours.
   It has been used primarily in Hawaii and the West Coast.
- Methcathinone or cat very addictive drug made from homemade ingredients. Produces a burst
  of energy, feeling of invincibility and euphoria. After use, there is a feeling of depression and loss of
  appetite, and users become irritable and argumentative, particularly binge users.
- MDMA or MDEA or MDA (Ecstasy and Ecstasy related metabolites) generally known as club drugs that produce feelings of euphoria, increased energy, and enhanced emotions. Dangers of use include severe dehydration, hyperthermia, dramatic increases in body temperature which can all lead to muscle breakdown and liver, kidney, and cardiovascular failure. Can result in death. Repeated use of drug can cause long term problems with regulation of mood, appetite, pain, learning & memory.

# **Immediate Effects**

- Increased heart rate and respiration
- Increased blood pressure
- Dilated pupils
- Dry mouth

# **Chronic and Long Term Effects**

- · Sweating, headache, blurred vision, and dizziness
- Decreased appetite
- Sleeplessness and anxiety
- Rapid or irregular heartbeat
- Tremors, loss of Coordination
- Physical collapse
- Depression
- Addiction and brain damage
- Amphetamine psychosis: hallucinations, delusions, or paranoia

# <u>Effects on Driving</u>: (Very similar to the effects of cocaine/crack, except intensity decreases and duration increases.)

- Over-estimation of performance capabilities. Driver takes more risks as the result of this attitude.
- A likelihood of being more accident-prone. Actual driving records indicated drivers taking amphetamines are more accident-prone.
- Anxiety, irritability and frequent overreaction. Minor irritations effect inappropriate driver reactions.
- Extreme mental and physical fatigue. This occurs during the "down" period. During this time the driver is unable to concentrate and make sound judgments.
- Food and sleep deprivation. Leads to inappropriate increased vehicle speed. Amphetamine psychosis can also result: the driver is out of touch with reality and does not know where he/she is going.
- Auditory and visual hallucinations
- Impaired motor coordination. Responses necessary for eye/hand coordination are impaired.

**STIMULANT DRUGS** (including cocaine) are used to combat fatigue and keep the driver awake, make the driver edgy, less coordinated and more likely to be involved in traffic collisions. A driver who uses stimulants is four times more likely to be involved in a collision than a non-user is.

#### **OPIOID INFORMATION - DEPRESSANT DRUG**

Sometimes referred to as narcotics, opiates are a group of drugs used medically to relieve pain. Some opiates come from a resin taken from the seedpod of the Asian Poppy, i.e. opium, morphine, heroin and codeine. Other opiates are synthesized or manufactured. The term "opioids" includes naturally occurring opiate drugs, as well as the synthetic narcotics.

#### **Description:**

- Naturally occurring opiate drugs:
  - Morphine oral solutions, immediate- and extended-release tablets and capsules, and injectable preparations
  - Codeine dark liquid varying in thickness (ex. found in prescription cough syrups), capsules and tablets
  - Heroin powder, white to dark brown and tar-like substance; can be injected, smoked, or sniffed/snorted; illegal drug (not found in any prescription)
- Semi-synthetic narcotics:
  - Hydrocodone/hydromorphone tablets, capsules, oral solutions and injectable formulations; can be abused by ingesting as intended or by crushing and dissolving tablets to be injected as a substitute for heroin; analgesic potency is 2-8 times greater than morphine and has a rapid onset of action;
  - Oxycodone/oxymorphone immediate- and extended-release tablets and capsules; can be abused orally or intravenously by crushing tablets and sniffing drug or dissolving in water and injecting or heating tablets and inhaling the vapors.
- Synethic opioid (not currently detected on DOT testing panel):
  - Fentanyl oral transmucosal lozenges, tablets, nasal sprays, transdermal patches, and injectable formulations; 100 times more potent than morphine, 50 more potent than heroin; patches can be abused by removing its gel contents and then injecting or ingesting the contents

**Opioid Crisis:** In 2015, more than 33,000 Americans died as a result of an opioid overdose, including prescription opioids, heroin, and illicitly manufactured fentanyl.<sup>1</sup>

- Roughly 21 29% of patients prescribed opioids for chronic pain misuse them.<sup>2</sup>
- Between 8 12% develop an opioid use disorder. 3-5
- An estimated 4 6% who misuse prescription opioids transition to heroin. 3-5
- About 80% of people who use heroin first misused prescription opioids.<sup>3</sup>

#### **Immediate Effects**

- · Relaxation and induced sleep
- Reduction of pain
- Decrease in size of pupils
- Cold, moist and bluish skin

#### **Chronic and Long Term Effects**

- Restlessness, nausea and vomiting
- Breathing slows down, and death may occur
- User may go "on the nod" going back and forth from feeling alert to drowsy
- Loss of appetite
- Addiction even with occasional use
- Infections of the heart lining and valves, skin abscesses, and congested lungs
- Infections from unsterile solutions, illness such as liver disease, tetanus, serum hepatitis and AIDS from use
  of needles

#### **Effects on Driving:**

- Effects of Intoxication. These effects are similar to those produced by alcohol abuse.
- False sense of security. This state of mind will cause the driver to make more chances and risks.
- Euphoric high followed by a period of stuporous inactivity. The driver daydreams while in this state of mind. Attention is not given to the road conditions and/or traffic situations. This subsequently creates the probability of a collision.
- Difficulty in focusing. The pupils are so constricted (pinpoint size) that vision is impaired.
- Visual distortion. Blurred and/or double vision occurs as it does with any depressant drug.
- Loss of consciousness. This is due to extreme fatigue and drowsiness.
- · Coma this creates an obvious safety risk.

# PHENCYCLIDINE (PCP) INFORMATION

PCP was first developed as an anesthetic in the 1950's and taken off the market because of its adverse effects. It acts as both a depressant and a hallucinogen, and sometimes as a stimulant. It is abused primarily for its mood altering effects. A low dose produces a coma-like condition with muscle rigidity and a blank stare, with the

eyelids half closed. Sudden noises or physical shocks may cause a "freak out" in which the person has abnormal strength, extremely violent behavior and an inability to speak or comprehend communications.

#### Description:

- A synthetic drug once used for veterinary purposes under the name Sernylan.
- PCP, Angel dust, rocket fuel, dummy dust, krystal joints, super kools, sherms, mint weed, zombie weed, killer weed, cluster, clickum, clicker, animal tranquilizer and love.
- PCP is a white crystalline powder that dissolves in water. It is illegally sold in liquid, powder, crystal or tablet form. Due to variations in the crude manufacturing process, PCP can be various colors.
- Both powdered and liquid PCP can be sprinkled on parsley or marijuana and eaten or smoked. Commercial cigarettes can be dipped into liquid PCP.
- Liquid PCP is also injected and sometimes placed directly into the eyes with an eyedropper.
- Because of its effects and characteristics, it is considered one of the most dangerous drugs.
- Most often called "angel dust", available as a white crystal-like powder, tablet, or capsule.

### **Immediate Effects**

- Increased heart rate and blood pressure
- Flushing, sweating, dizziness and numbness

# **Chronic and Long Term Effects**

- Stimulation (speed up) of body functions (may also act as a depressant, pain killer, anesthetic, or hallucinogenic drug)
- Change in user's perception of own body and other forms
- Changes in speech, muscle coordination and vision
- Slowing of body movements
- Dulled sense of touch and pain
- "Spacing out" of time
- Drowsiness, convulsions and coma (effects of large doses)
- Death from repeated convulsions, heart & lung failure or ruptured blood vessels in the brain
- Signs of paranoia, fearfulness and anxiety
- Flashbacks or PCP psychosis

<u>Effects on Driving</u>: The driver using this drug is extremely dangerous on the road. Its effects are so varied and so bizarre that the dangers are unpredictable.

- A feeling of owning the road. The user feels that he/she is the superior being on the road.
- Sense of invulnerability and power. This causes the driver to take more risks on the road.
- Aggressive behavior. This drug creates a very aggressive, hostile and violent driver with very little patience
  and no fear of death.
- Auditory and visual hallucinations. This creates the likelihood of the driver reacting to something not there, causing a collision.
- Visual distortion. Blurred and/or double vision occurs.
- Convulsions, coma, and/or death. This creates the obvious possibility of a collision.
- Loss of perception of time. Time appears to slow down.
- Impaired coordination and dulled senses.

#### DRUG ABUSE AND YOUR HEALTH

Drugs are combinations of chemicals. Doctors prescribe them as part of a treatment program if you are ill or injured. Certain drugs can be purchased over the counter at any pharmacy. In the U. S. the Federal Drug Administration (FDA) regulates the development and marketing of drugs.

But the FDA does not regulate illegal drugs. The most common illegal drugs are known as mood-altering drugs. You use them to change the way you feel. You usually do not use them for a specific, medically sound purpose.

So what is the problem? Addiction. Dependence. You see, when a doctor prescribes a drug he or she usually tries to make certain the dosage you take fits the particular circumstances of your care. If you, on the other hand, control your own dosage you may use the drug for any purpose you wish.

#### THE PROBLEM OF ADDICTION

Addiction simply means you need to continue using a drug -- usually to maintain a specific mood or feeling created by the drug. You need your high. Psychologically, you use the drug to "feel" the way you want to feel. Physically, there can be all sorts of changes in your body. Usually, only withdrawal will show how severe your physical dependence was.

**BE AWARE -** Do you have a alcohol or drug problem? Or do you know someone who has a problem? If you ever think you (or someone you know) may be drinking, smoking, or sniffing too much; you better check your behavior out.

Any drug or mood-altering chemical can harm you if you get too much of it. You can have a bad reaction to even the mildest drug (remember that first cigarette if you're a smoker?). Most drugs have side effects, and once you accept one drug, you are more likely to "experiment" with others, or to "mix" them. Some drugs are so dangerous that an overdose can cause death.

# The Pattern of Abuse:

If you are abusing drugs, you often cannot see the connection between the problems you are aware of and your pattern of abuse. If you are an "abuser", you will most likely respond like the person in the situations described in the next paragraph.

When you abuse drugs or alcohol, you tend to think a lot about them. You talk about your highs, about how loaded you're going to get next weekend. You select activities according to how simply or easy it is for you to drink or take drugs while doing them. Your life revolves around the drug or alcohol, and you tend to avoid non-drug users.

You develop a strong pattern of denial - "I'm in control." "No problem." "I can handle it." You blame others - "Stop bugging me. If you weren't such a ......., I wouldn't have to get loaded." Eventually, you cannot admit the drug controls you. You may want to quit, but you're convinced you cannot. You know you're in trouble, but you can't face it. You have to get help to quit.

Very few people can successfully confront their alcoholism or drug addiction on their own. That's why there are organizations like Alcoholics Anonymous, and counseling services exclusively for the abuser. The important point to remember here is that help is available for you or anyone who falls into the trap of substance abuse.

# **The Warning Signs of Substance Abuse**

- Excessive absences and/or tardiness (especially after a weekend or holiday).
- Frequent requests for time off.
- Numerous accidents without explanation.
- Noticeable increase in medical insurance claims, particularly for non-job injuries.
- Unsatisfactory work performance.
- Non-work-related visits from other employees or strangers.
- Secretive behavior, defensive attitude.
- Drowsiness, slurred speech, lack of coordination, inability to concentrate, nausea or other physical symptoms.
- Agitation, rapid or slurred speech, dizziness, dilated pupils.
- Bloodshot eyes, runny nose.
- Drastic weight changes.
- Marked change in mood, attitude and behavior.
- Deterioration in personal grooming and hygiene.
- Wearing sunglasses and long-sleeved shirts at inappropriate or unusual times to hide dilated pupils or needle marks.
- Frequent need to borrow money, or theft from the company.
- Avoidance of supervisors.

### **Toll-Free Hotlines for Help:**

- Alcoholics Anonymous For you local area number consult the yellow pages Indianapolis Area 317/632-7864
- Al-Anon (Families of Alcoholics) 888/425-2666
- American Council on Alcoholism 800/527-5344
- National Council on Alcoholism 800/622-2255
- Cocaine Helpline 866/535-7043
- NIDA Hotline Drug Abuse Information & Treatment Referral 800/662-4357

#### References:

- Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths United States, 2010–2015. MMWR Morb Mortal Wkly Rep. 2016;65. doi:10.15585/mmwr.mm655051e1.
- 2. Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. *Pain.* 2015;156(4):569-576. doi:10.1097/01.j.pain.0000460357.01998.f1.
- 3. Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. CBHSQ Data Rev. August 2013.
- 4. Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*. 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.
- Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend*. 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.