

EMPLOYEE EDUCATION INFORMATION
To meet requirements of
49 CFR Part 382.601

FMCSA/DOT DRUG AND ALCOHOL TESTING PROGRAM

PRESENTED BY

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FMCSA (Federal Motor Carrier Safety Administration)
Drug and Alcohol Testing Rules and Regulation
49 CFR 382

A. IDENTITY OF PERSON RESPONSIBLE TO ANSWER QUESTIONS

The person(s) designated to answer questions about this testing program is:

B. APPLICATION (Who is required to be tested?)

The FMCSA regulations (49 CFR Parts 382, 391, 392, 395) apply to every person who operates a commercial motor vehicle (CMV) in interstate or intrastate commerce and who is subject to commercial driver's license (CDL) requirements. A CMV is a vehicle that:

1. Has a gross combination weight rating of 26,001 or more pounds inclusive of a towed unit with a gross vehicle weight rating of more than 10,000 pounds; or
2. Has a gross vehicle weight rating of 26,001 or more pounds; or
3. Is designed to transport 16 or more passengers, including the driver; or
4. Is used to transport hazardous materials.

C. COMPLIANCE (When must a driver be in compliance?)

An employee must be in compliance while performing safety sensitive functions. An employee is performing a safety sensitive function during any period in which he or she is actually performing, ready to perform, or immediately available to perform any of the on-duty functions listed below.

1. All time at an employer or shipper plant, terminal, facility, or other property, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the employer;
2. All time inspecting equipment as required by Sec. 392.7 and 392.8 or otherwise inspecting, servicing, or conditioning any commercial motor vehicle at any time;
3. All time spent at the driving controls of a commercial motor vehicle in operation;
4. All time, other than driving time, in or upon any commercial motor vehicle except time spent resting in a sleeper berth (a berth conforming to the requirements of 393.76);
5. All time loading or unloading a commercial motor vehicle, supervising, or assisting in the loading or unloading, attending a commercial motor vehicle being loaded or unloaded, remaining in readiness to operate the commercial motor vehicle, or in giving or receiving receipts for shipments loaded or unloaded;
6. All time repairing, obtaining assistance, or remaining in attendance upon a disabled commercial motor vehicle.

D. PROHIBITIONS (What driver conduct is prohibited?)

Alcohol Prohibitions: Drivers are prohibited from any alcohol misuse that could affect performance of a safety-sensitive function, including:

- Use while performing safety-sensitive functions.
- Use during the 4 hours before performing safety-sensitive functions.
- Reporting for duty or remaining on duty to perform safety-sensitive functions with an alcohol concentration of 0.04 or greater.
- Use during 8 hours following an accident, or until a post-accident test is completed.
- Refusing to submit to a required alcohol test.

Note: A driver found to have an alcohol concentration of 0.02 or greater but less than 0.04 shall not perform, nor be permitted to perform, safety-sensitive functions for at least 24 hours. No other consequences apply in this situation with regard to DOT authority. However, an employer is able to take action independent of the regulations and FMCSA authority that is otherwise consistent with the law.

Drug Prohibitions: Drivers are prohibited from any drug use that could affect performance of a safety-sensitive function, including:

- Report to duty when he/she has used any controlled substance, except when the use is prescribed by a physician who has advised the driver the substance does not adversely affect the driver's ability to operate a vehicle;
- Report to duty or remain on duty if he or she has a confirmed positive test result;
- Refuse to submit to a required drug test.

E. REQUIRED TESTS (Under what circumstances will a driver be tested?)

1. **Pre-employment:** The following two requirements must be met:

- Drivers must submit to a drug test prior to the first time an employee performs a safety-sensitive function.
- Employers must obtain written consent from the prospective employee for the purpose of obtaining testing records for the previous 3 years from any previous employer(s) whose testing program they were subject to.

2. **Post-accident:**

As soon as practicable following an accident involving a commercial motor vehicle on a public road, in commerce, the employers shall test for alcohol and drugs each surviving driver when either:

- the accident involved a fatality; or
- the driver receives a citation under state or local law for a moving violation arising from an accident that involved:
 - injury requiring medical treatment away from the scene, or
 - one or more vehicles having to be towed from the scene

Time Requirements to complete testing:

- Drug test - 32 hours
- Alcohol test – 8 hours
 - if the driver has not submitted to an alcohol test within 2 hours, the employer shall prepare and maintain on file a record stating the reason a test was not promptly administered.
 - If the driver has not submitted to an alcohol test within 8 hours, cease attempts to administer the test and prepare and maintain the record described above.

Law Enforcement Post-Accident Test:

In lieu of administering a post-accident test, employers may substitute a test administered by on-site police or public safety officials under separate authority. The employer is allowed to substitute a *blood or breath* alcohol test and a urine drug test performed by such local officials, using procedures required by their jurisdictions. This may be particularly useful if that test can be administered before the employer can get to the scene. The employer must obtain a copy of the test results.

3. **Random:**

Both drug and alcohol tests are to be conducted on a random unannounced basis. The DOT sets minimum annual rates between **10%** and **50%** for both drug and alcohol testing. These rates can change from year to year per DOT published rates in the Federal Register. These published rates are minimum requirements and an employer may choose to test above the minimum rates.

When testing must be conducted:

- Alcohol Testing – A driver shall only be tested while the driver is performing safety-sensitive functions, immediately prior to performing, or immediately after performing safety-sensitive functions.
- Drug Testing – Drug testing may be performed at any time while the driver is at work for the employer. The driver may be doing clerical or mechanical repair duties at the time of notification by the employer.

Selection and notification:

- Selection of drivers shall be made by a scientifically valid method, such as a random number table or a computer-based random number generator that is matched with drivers' Social Security numbers, payroll identification numbers, or other comparable identifying numbers. Under the

selection process used, each driver shall have an equal chance of being tested each time selections are made.

- The employer shall ensure that random tests are unannounced and spread reasonably throughout the year. Employers need to establish a program that will ensure that there is no period of time during which employees know testing "is done for the year."
- The employer shall ensure that drivers selected for random tests proceed immediately to the testing site upon notification of being selected.
- Employers may pool all CDL employees into one pool regardless of location. However, the FMCSA prohibits the inclusion of any non-CDL employee into the CDL pool.

Whose random pool must a driver working for two or more employers be in?

- The driver must be in each of the employers' random testing programs.

Can a driver be "excused" from a random test?

- No, a driver that is selected must complete the required tests some time during the selection period. If a driver is unavailable, on vacation, out sick, taking personal time off, etc. the day random testing has been scheduled, then the employer must arrange for the testing to be completed at later date during the selection period.
- The only exceptions would be if the driver was no longer employed or was on extended medical leave and would not return before the selection period was over.

4. Reasonable Suspicion:

- A driver must submit to an alcohol or drug test when the employer has reasonable suspicion to believe the driver has violated prohibited conduct.
- The employer's reasonable suspicion must be based on "specific, contemporaneous, articulable observation concerning the appearance, behavior, speech, or body odors of the driver."
- Only one trained supervisor or company official is required to make the observation to require a test.
- Employer representatives designated to determine whether reasonable suspicion exists must receive at least a total of 2 hours of training on drug and alcohol misuse and indicators of probable misuse.
- Time Requirements to complete testing are the same as for post-accident.
- Written documentation must be made of the observations leading to a reasonable suspicion test.
- If reasonable suspicion of alcohol is observed but a reasonable suspicion test has not yet been administered, a driver shall not perform safety-sensitive functions until:
 - An alcohol test is administered and the driver's alcohol concentration measures less than 0.02, or
 - 24 hours have elapsed following the determination of reasonable suspicion
- Documentation for a reasonable suspicion test must be prepared and signed by the witness within 24 hours, or before the result is released, whichever is earlier.

5. Return-to-duty:

A driver who has violated a prohibition on alcohol use must undergo a return-to-duty test with a result of under 0.02 before returning to duty requiring the performance of a safety-sensitive function. A driver who has violated a prohibition concerning controlled substances must undergo a return-to-duty test with a negative result before returning to duty requiring the performance of a safety-sensitive function.

6. Follow-up testing:

An employee who has been returned to duty is subject to follow-up testing. The number and frequency of such follow-up testing is determined by the substance abuse professional (SAP) and consists of at least six unannounced tests in the first 12 months following the employee's return to duty. After the first year, the substance abuse professional may terminate this requirement or continue follow-up testing for another 4 years.

F. PROCEDURES FOR THE TESTING OF ALCOHOL

Testing devices: Tests must be conducted with evidential breath test devices (EBTs) approved by the National Highway Traffic Safety Administration (NHTSA).

Screening Test Procedures:

- Donor is asked to provide identification and sign the consent line on the testing form.
- The test number is identified to the donor.
- The instrument performs a "blank check" (air blank) to confirm that no alcohol is present in the EBT.
- An individually sealed mouthpiece is opened and attached to the EBT. The employee blows into the mouthpiece until an adequate amount of breath has been obtained.
- The test result will show on the monitor of the EBT, donor is asked to verify result and signs testing form for verification, test result is printed out of EBT and attached to all copies of the testing form.
- If the result is under .02, the BAT records the result and no further testing is performed.
- If the result is .02 or higher, a confirmation test is conducted.

Confirmation Test Procedures:

- The confirmation test is conducted at least 15 minutes but no more than 30 minutes after the screening test.
- The confirmation test must be conducted using an evidential breath testing (EBT) instrument that prints out the results, date and time, a sequential test number, and the name and the serial number of the EBT to ensure the reliability of the results.
- The confirmation test result determines any action taken.
- Employees who test positive for alcohol (.04 BAC or greater) are required to be removed from duty immediately and complete any required rehabilitation recommended by a substance abuse professional before a CDL position may be resumed.
- Employees testing .02 or greater but less than .04 must be removed from duty for a period of 24 hours. (No additional testing is required to return to duty.)

Inability to provide enough breath to complete the breath test:

An employee who does not provide enough breath for the test is sent to a physician for a medical evaluation. If the doctor is unable to find a medical explanation for the employee's failure to provide enough breath, the employee will be considered to have refused to take a test, which is prohibited in the FMCSA rules.

Testing procedures that ensure accuracy, reliability and confidentiality of test results are outlined in the Part 40 rule. These procedures include training and proficiency requirements for the breath alcohol technicians (BAT), quality assurance plans for the breath testing devices (including calibration requirements for a suitable test location), and protection of driver test records.

G. PROCEDURES FOR THE TESTING OF DRUGS

Drugs that will be tested for include: Amphetamine (Methamphetamine & Ecstasy/MDMA), Marijuana (THC), Cocaine, Opioids (Morphine, Codeine, Heroin, Hydrocodone, Hydromorphone, Oxycodone, Oxymorphone), Phencyclidine (PCP)

Summary of collection procedures:

1. The donor will be asked to show the collector a photo ID (ex. driver's license).
2. The donor will be directed to empty his or her pockets and display the items in them to ensure that no items are present which could be used to adulterate the specimen. If nothing is there that can be used to adulterate a specimen, the employee can place the items back into his or her pockets. If an item could be used to tamper a specimen, the collector must maintain it until the collection process is completed.
3. The donor will be asked to provide a urine specimen in the privacy of a restroom.
4. A "split sample" of urine is collected. In the split sample method the urine specimen is divided into two containers. The purpose of the split sample is to allow the donor the opportunity to have the split portion (bottle b) of the specimen tested at a different certified laboratory, providing the donor with an opportunity for a "second opinion."

NOTE: A donor must provide at least 45 ml (milliliters) of urine. Failure to provide this amount of urine within a specified time period may be considered a **refusal to submit** to a controlled substance test and the employee is considered to have engaged in actions prohibited by these rules. The donor will have up to 3 hours to provide the minimum amount of urine and may consume up to 40 ounces of fluids. If the donor is still unable to provide a complete sample after 3 hours, the test is stopped and

the employer will send the donor for a medical evaluation to determine if there is a legitimate reason for failure to provide a specimen or there is a refusal to submit a specimen. A report by the examining physician must be provided to the MRO for evaluation. The MRO makes the final decision as to whether this will be deemed a refusal.

5. The collector will seal the corresponding bottles of urine with a seal that is provided on the testing form in the presence of the donor. Each seal has the control number/specimen number that corresponds to the number on the rest of the form. The chain of custody must be completed and shipped with the specimen.
6. The donor will be asked to sign the completed chain of custody. This verifies the specimen bottles were sealed in the donor's presence. The donor is given a copy of the chain of custody. The specimen is then shipped to the laboratory for testing.

Direct Observed Collections: The collection of urine specimens must allow individual privacy unless one of the situations listed below occurs. DOT requires directly observed collections when:

- The employee attempts to tamper with his or her specimen at the collection site – as follows:
 - The temperature of the specimen is outside the acceptable range; or,
 - The specimen shows signs of tampering (unusual color/odor/characteristics); or
 - The collector finds an item in the employee's pocket or wallet which appears to be brought into the site to contaminate a specimen or the collector notes conduct suggesting tampering; or
- The Medical Review Officer (MRO) orders the direct observation because:
 - The employee has no legitimate medical reason for certain atypical laboratory results; or
 - The employee's positive or refusal (adulterated / substituted) test result had to be cancelled because the split specimen test could not be performed (for example, the split was not collected).
 - The specimen previously provided by the employee was diluted with a creatinine value ≤ 5 mg/dL but > 2 mg/dL; or,
- The test is a return-to-duty or follow-up test (effective as of August 31, 2009).

Procedures for Direct Observed Collections: Effective August 25, 2008, DOT mandated the following specific procedures for direct observed collections: Prior to the direct observed collection, a same gender collector (or same gender observer) will request the employee to raise and lower clothing and to turn around to permit the collector or observer to determine if a prosthetic or other device that could be used to interfere with the collection process is present. If a device is present this will be considered a refusal to test.

H. LABORATORY TESTING PROCEDURES

Every specimen is required to undergo an initial screen followed by a confirmation of all positive screen results. This screen-confirmation process utilizes highly sophisticated techniques to detect levels of prohibited substances in urine.

Initial screening test:

49 CFR Part 40 requires the use of immunoassay in the initial screen process. The following table shows initial cutoff levels that are to be used by the laboratory when screening specimens. The cutoff levels for screening tests are listed below and are expressed in nanograms per milliliter (ng/ml):

INITIAL TEST

Drug Metabolite:	Initial test level (ng/ml)
Marijuana metabolite (Delta-9-tetrahydrocannabinol-9-carboxylic acid)	50
Cocaine metabolite (Benzoyllecgonine)	150
Opiate metabolites	
Morphine	2000
Codeine	2000
Heroin	10
Hydromorphone Hydrocodone	300
Oxycodone, Oxymorphone	100
Phencyclidine	25
Amphetamines:	
Amphetamine	500
Methamphetamine	500
MDMA, MDA (Ecstasy metabolites)	500

Confirmation test:

A confirmation test is performed on all initial positive tests using gas chromatography/mass spectrometry (GCMS). All confirmations must be quantitative in their analysis, which means that the specific, scientific level of drug contained in the collected specimen must be known. Cutoff levels for confirmation tests are:

CONFIRMATORY TEST

Test Level	Confirmatory test level (ng/ml)
Marijuana metabolite (Delta-9-tetrahydrocannabinol-9-carboxylic acid)	15
Cocaine metabolite (Benzoylecgonine)	100
Opiate metabolites	
Morphine	2000
Codeine	2000
Heroin	10
Hydromorphone Hydrocodone	100
Oxycodone, Oxymorphone	100
Phencyclidine	25
Amphetamines:	
Amphetamine	250
Methamphetamine*	250
MDMA, MDA (Ecstasy metabolites)	250

*Specimen must also contain amphetamine at a concentration greater than or equal to 100 ng/ml.

Validity Testing: This is a laboratory requirement in which there is an evaluation of the specimen to determine if it is consistent with normal human urine.

The purpose of validity testing is to determine whether:

- certain adulterants or foreign substances were added to the urine,
- if the urine was diluted, or
- if the specimen was substituted

The laboratory is required to:

- test each specimen for creatinine
- measure the specific gravity of each specimen
- measure the pH of each specimen
- test each specimen to determine if it contains substances that may be used to adulterate the specimen

A specimen is:

- **diluted** if – creatinine is less than 20 mg/dl and specific gravity is less than 1.003
- **substituted** if – the creatinine and specific gravity values are so diminished or so divergent that they are not consistent with normal human urine.
- **adulterated** – a urine specimen containing a substance that is not a normal constituent or containing an erogenous substance at a concentration that is not a normal physiological concentration.

I. MEDICAL REVIEW OFFICER'S ROLE AND RESPONSIBILITIES:

Definition: A person who is a licensed physician and who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.

Responsibilities of the MRO:

- Act as an independent and impartial "gatekeeper" and advocate for the accuracy and integrity of the drug testing program.
- Provide a medical review of the drug testing process for each specimen.

- Determine whether there is a legitimate medical explanation for confirmed positive, adulterated, substituted, and invalid drug test results from the laboratory.
- Investigate and correct problems and work with involved parties where assistance is needed with such situations as cancelled or problematic tests, incorrect results, etc.
- Insure timely reporting of test results to employers.
- Protect the confidentiality of the drug testing information.
- Perform all functions within compliance of DOT regulations.

Reporting and Review of Test: The MRO will report one of the following to the DER:

Negative Result:

- A result is considered negative if the laboratory finds no drug metabolite levels at or over the confirmed cutoff values or if the laboratory did find a drug metabolite present, the MRO has verified that the employee has a valid medical explanation.
- The MRO must complete all review requirements of the laboratory result and chain of custody before a "negative" can be issued.

Negative but Diluted Result:

- Diluted tests must be reported to the DER.
- MRO must explain employer's obligations and choices regarding dilutes under 40.197.
 - The employer may, but is not required to, require the employee to take another test immediately.
 - It cannot be collected under direct observation.
 - Employers must treat all employees the same for this purpose.
 - Employers may however, establish different policy for different types of tests (for example, conduct retest on pre-employment but not on random).
 - Employers must inform employees of their policy in advance.

Positive Test Result:

- To verify a test as positive the MRO must:
 - Perform an administrative review of chain of custody to verify correctness
 - Conduct a verification interview either by direct contact in person or by telephone with the donor.
 - The interview must be completed before a positive result can be issued except in the following circumstances:
 - the employee expressly declines the opportunity to discuss the test
 - the employee fails (refuses) to contact the MRO if the DER has successfully made and documented a contact with the employee and instructed the employee to contact the MRO and more than 72 hours have passed
 - If MRO or DER, after making and documenting all reasonable efforts, has not been able to contact the employee within 10 days

Refusals to Test: The following situations will be deemed a refusal to test if the employee:

- Refused to provide an adequate urine specimen for testing without a medical explanation meeting requirements outlined by regulations. The employee has the burden of proof that there is a legitimate medical explanation (40.193).
- Failed to follow the collector's instructions, during a direct observed collection, to raise and lower clothing and to turn around to permit the observer to determine if a prosthetic or other device that could be used to interfere with the collection process is present.
- Possessed or was wearing a prosthetic or other device that could be used to interfere with the collection process.
- Provided a specimen considered substituted or adulterated by criteria outlined in 40.145.

Cancelled Test Results: This means "no result" is being issued.

Tests can be cancelled for a variety of reasons. Examples include the following:

- The laboratory reports an invalid result.
- The laboratory reports that the specimen was rejected for testing (e.g., because of a fatal or uncorrected flaw).

The MRO will inform the DER whether another test will be required based on the reason for the cancelled test.

Split Specimen Protocol: How does an employee request a test of a split specimen?

When the MRO has informed the employee of a verified "positive drug test" or "refusal to test" because of adulteration or substitution, the employee has 72 hours from the time of notification to request a test of the split specimen. The request may be verbal or in writing. If the request is made to the MRO within 72 hours, this triggers the requirements of Subpart H of Part 40.

At the employee's request, the MRO immediately provides written notice to the laboratory that tested the primary specimen, directing the laboratory to forward the split specimen to a second DHHS-certified laboratory.

Who pays for the test of a split specimen? Regulations do not state who is required to pay for the test. However, the employer is responsible for making sure that the MRO, first laboratory and second laboratory complete the split specimen test in a timely manner. The employee cannot be required to pay up front and the employer cannot condition the request for a "split test" on the employee's direct agreement to reimburse the employer, MRO or laboratory for payment for the costs of the testing.

The employer may seek payment or reimbursement of all or part of the cost of the split specimen from the employee (e.g., through your written company policy or a collective bargaining agreement).

J. REQUIREMENT THAT A DRIVER SUBMIT TO TESTING

All drivers who possess a CDL and are required to be tested by 49 CFR Part 382 must submit to alcohol and controlled substance testing in accordance with Part 382.

K. WHAT CONSTITUTES A REFUSAL AND WHAT ARE THE CONSEQUENCES OF REFUSING ?

Refusing to submit (to an alcohol or controlled substance test) means that a driver:

- fails to provide adequate breath for alcohol testing as required by Part 40, without a valid medical explanation, after he or she has received notice of the requirement for breath testing in accordance with the provisions of this rule,
- fails to provide an adequate urine sample for controlled substance testing as required by Part 40, without a genuine inability to provide a specimen (as determined by a medical evaluation), after he/she has received notice of the requirement for testing in accordance with these regulations, or
- engages in conduct that clearly obstructs the testing process.

No driver shall refuse to submit to a required alcohol or drug test. This includes tests required for post-accident, random, reasonable suspicion, or follow-up test as outlined by Part 382. No employer shall permit a driver who refuses to submit to such tests to perform or continue to perform safety-sensitive functions. Refusing to submit to a required test will have the same consequences as testing positive.

L. CONSEQUENCES FOR VIOLATING PROHIBITED CONDUCT (What are the mandatory consequences for engaging in alcohol or controlled substances misuse?)

If the employee:

- Tests positive
- Refuses to provide an adequate specimen (urine or breath)
- Provides a specimen considered substituted or adulterated

The following consequences are mandatory

- The driver is required to be removed from safety-sensitive functions.
- The driver must be advised by the employer of the resources available in evaluating and resolving the problem. This must include the names, addresses, and telephone numbers of substance abuse professionals (SAP's) and counseling and treatment programs.
- The driver must be evaluated by a substance abuse professional (SAP) who determines what assistance the employee needs in resolving problems associated with alcohol misuse and controlled substances use.

- All positive tests and refusals to test will have a consequence. SAP's must require education and/or treatment. The return-to-duty process is mandatory following any violation, including a pre-employment test.
- **Before returning to duty**, the driver must undergo a **return-to-duty** test for:
 - alcohol, with a result of less than 0.02 (if the prohibited conduct involved alcohol); or
 - drugs, with a verified negative result (if the prohibited conduct involved drugs).
- **In addition**, the driver must:
 - be evaluated by the SAP to determine that the driver properly completed all required education and/or treatment and
 - be subject to unannounced follow-up alcohol and drug tests administered by the employer. The number and frequency are to be set by the SAP, but must consist of at least 6 tests during the first 12 months following the return to duty. Follow-up tests may be done for up to 60 months.

Rehabilitation Issues:

- Employers are not required to discipline workers who violate the prohibitions against alcohol or controlled substances use. Nor are employers required to provide or pay for rehabilitation services. These issues are left to collective bargaining agreements, or employer policies for unrepresented workers.
- Evaluation and rehabilitation may be provided by the employer, by a SAP under contract with the employer, or by a SAP not affiliated with the employer.
- If the employee is released (terminated), he/she must be advised of the resources available for evaluating and resolving any substance abuse problem.
- The employee (driver) is ineligible for hiring by any other firm until SAP requirements are completed.
- The employer must make sure that a SAP who determines that a driver needs assistance in resolving problems does not refer the driver to his/her private practice or to an organization in which the SAP has a financial interest. The SAP may refer the driver for assistance through:
 - A public agency, such as a state, county or municipality;
 - The employer or a person under contract to provide treatment for alcohol or controlled substance problems on behalf of the employer;
 - The sole source of therapeutically appropriate treatment under the driver's health insurance program; or
 - The sole source of therapeutically appropriate treatment reasonably accessible to the driver.

M. 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

N. 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.

Signs and Symptoms of Use: **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 effects on
 - **cognitive skills**, such as information processing, and
 - **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...I 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.

The chart on the following page provides additional information on the effects of alcohol. It summarizes the approximate number of drinks it takes to reach a certain BAC depending on how fast the drinks were consumed and one's body weight.

Breath Alcohol Content and Its Effects*

Approximate Breath Alcohol Concentration (in Grams*)	Body Weight in Pounds								Effects on Feeling and Behavior	Effects on Driving Ability
	**Drinks in Body	100	120	140	160	180	200	220		
1	.04	.03	.03	.03	.02	.02	.02	.02	Absence of observable effects. Mild alteration of feelings, slight intensification of existing moods.	Mild changes. Most drivers seem a bit moody. Bad driving habits slightly pronounced.
2	.08	.06	.05	.05	.04	.04	.03	.03		
3	.11	.09	.08	.07	.06	.06	.05	.05		
4	.15	.12	.11	.09	.08	.08	.07	.06	Feeling of relaxation. Mild sedation. Exaggeration of emotions and behavior. Slight impairment of motor skills. Increase in reaction time.	Drivers take too long to decide and act. Motor skills (such as braking) are impaired. Reaction time is increased.
5	.19	.16	.13	.12	.11	.09	.09	.08		
6	.23	.19	.16	.14	.13	.11	.10	.09	Difficulty performing gross motor skills. Uncoordinated behavior. Definite impairment of mental abilities, judgment and memory.	Judgment seriously affected. Physical and mental coordination impaired. Physical difficulty in driving a vehicle.
7	.26	.22	.19	.16	.15	.13	.12	.11		
8	.30	.25	.21	.19	.17	.15	.14	.13		
9	.34	.28	.24	.21	.19	.17	.15	.14	Motor impairment of all physical and mental functions. Irresponsible behavior. Euphoria. Some difficulty standing, walking and talking.	It is hoped that the driver is passed out before trying to get into a vehicle.
10	.38	.31	.27	.23	.21	.19	.17	.16		
11		.40	.34	.30	.27	.24	.22	.20	At .40, most people have passed out. Hospitalization probable at BACs of .40 and above and death is imminent.	
12			.38	.33	.29	.26	.24	.22		
13			.40	.36	.31	.29	.26	.24		
14				.38	.34	.31	.28	.26		
15					.37	.33	.30	.28		

* Alcohol concentration is expressed here as grams of alcohol per 210 liters of breath. A reading of ".10" on a breath-testing instrument indicates 10 one-hundredths (10/100) grams of alcohol per 210 liters of breath.

**Drink definition: 1 1/2 ounce of 80 proof liquor, 12 ounce of beer or 5 ounce of table wine.

NOTE: For each serving of beer, wine, or liquor in the above about, it will take the body approximately 1 hour to 1 hour 15 minutes to process each drink out of the blood.

O. 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 effects 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 2-1/2 inches 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:

- Hashish: 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.
- Hashish Oil: 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, Biphedamine, 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 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

Effects on Driving: (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, opioids are a group of drugs used medically to relieve pain. Some opioids come from a resin taken from the seedpod of the Asian Poppy, i.e. opium, morphine, heroin and codeine. Other opioids 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.
- Synthetic 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.¹

- Roughly 21 – 29% of patients prescribed opioids for chronic pain misuse them.²
- 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.³

Immediate Effects

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

- Overdoses effects include: confusion, pinpoint pupils, cold and clammy skin, lowered blood pressure, sleepiness, slowed breathing, slow pulse rate, coma, and possible death

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

Effects on Driving: 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.

P. 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.

Q. 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.

Q. 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

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