


Alcohol and Drug Education

Employee Training

1




The Cost Of Drugs In The Workplace

Substance abuse costs close to \$102 billion annually

- Lost productivity
- Increased absenteeism
- Accidents, injuries
- Mistakes
- High medical costs
- Stealing
- Undermined employee morale


2



Hidden Losses

- Ineffective decisions
- Diverted supervisory time
- Friction among workers
- Damage to equipment
- High personnel turnover
- Damage to public image

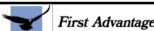
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The Drug Testing Process

- Urine Specimen Collection
- Laboratory Analysis
- Medical Review


4



Urine Specimen Collection Process


- A collection facility/clinic is identified
- Custody & Control forms (CCFs) are available at the employer locations
- For reasonable suspicion testing, the employee should always be escorted/transported to the collection site
- Donor should bring valid picture ID (driver's license, school ID, military ID, etc.) or company representative must identify employee for collector

5



Collection Process Cont'd.

- Employee must remove outer garments (coats, hats, etc.), leave hand carried items outside the toilet enclosure & empty and display the contents of all pockets
- Employee must wash hands
- Employee is entitled to privacy while urinating unless he/she presents a "suspect" specimen



6

Collection Process Cont'd

- Donor is never out of sight of specimen until sealed
- Temperature of specimen will be taken
- Specimen will be subdivided, poured into 2 specimen bottles, and sealed with tamper-evident labels (at least 45 mL of urine is required)
- The donor will initial the tamper evident seals
- The donor and collector will complete the CCF, ensuring that the specimen ID number on the CCF matches the ID number on the bottles
- CCF copy and specimens are secured in a plastic shipping bag
- The donor is provided a copy of the CCF
- The collector faxes copies of the CCF to the MRO and the Company DER

7

Collection Issues

Shy Bladder—Unable to urinate an adequate amount; or unable to urinate when someone is in close proximity

- Provide up to 40 oz of fluids at collection site
- Discontinue collection after 3 hrs; complete CCF
- Inform DER; Donor must have a medical evaluation by company designated physician
- Physician reports findings to MRO; If no medical condition to explain shy bladder, test is reported as refusal to test

8

The Laboratory

- Maintains chain of custody on all specimens
- Quality control (both internal and external proficiency testing programs)
- Testing of specimens for 5 classes of drugs
- SAMHSA Certification

9

Laboratory Analysis

- Lab does initial screen (immunoassay) for drugs and may conduct specimen validity testing
- Initial positive results are confirmed using a second, analytical method (GC/MS)
- Cut-off values (ng/mL) are used to determine positive findings
- Specimens that are “fatally flawed” are rejected by the laboratory (CCF errors, unsealed bottles, etc.)
- All results are reported to MRO

10

Basic MRO Functions

- Receive test results from the laboratory
- Review the CCF for completeness and accuracy
- Verify the result
- Report the result to the DER
- Retain test result records

11

Medical Review

- Conduct interview with donor for all non-negative tests
- Inform donor of test result and offer opportunity to present legitimate medical explanations for the laboratory findings
- Review collection process to ensure essential procedures were followed
- Validate medical explanations
- Offer donor opportunity for split specimen analysis

12

MRO Verified Results



First Advantage®

- Negative or negative dilute (specimen's creatinine and specific gravity are lower than expected values)
- Positive or positive dilute (specific drug(s) detected are reported)
- Canceled test
 - *Fatal flaw, uncorrected error, invalid specimen, other problem results*
- Refusal to test
 - *Specimen substituted or adulterated; failure to provide a specimen with no medical explanation; failure to submit to direct observation collection or medical examination, as required*

13

Negative Results



First Advantage®

- MRO will report negative results immediately after CCF review (1-3 days after specimen collection)
- Employer may require another test if result is negative dilute (must accept results of second test even if dilute)
- Negative result means there was no drug present above the cut-off levels or there was a legitimate medical explanation for drugs detected

14

Positive Results



First Advantage®

- Positive result is reported after MRO interview with donor
- Drug(s) detected are reported, but not the amount of drug(s)
- Donor has 72 hours to request testing of split specimen (result is reported before split specimen testing is initiated or completed)
- Employee must be immediately removed from safety-sensitive position (applicant cannot be hired)

15

Results (Other)



First Advantage®

- In Process – MRO is awaiting receipt of CCF or attempting to contact the donor (internal First Advantage)
- Cancelled – MRO provides reason for cancellation (will direct re-collection of specimen where indicated)
- Refusal to Test – MRO will provide explanation and employer must immediately remove employee from safety-sensitive position

16

Testing Panel



First Advantage®

- Amphetamines (amphetamine & methamphetamine)
- Cocaine
- Marijuana
- Phencyclidine (PCP)
- Opiates (morphine, codeine, and heroin)

17

Amphetamines



First Advantage®

- Amphetamine (speed, uppers) or methamphetamine (ice, crystal meth)
- Used for weight loss, increased energy and wakefulness
- Vicks inhaler can cause positive lab test, but additional analysis can rule out Vicks as cause
- Prescription amphetamines used for treatment of:
 - *Narcolepsy*
 - *ADD*
 - *Parkinson's*
 - *Depression*
- Detected in urine 1-3 days after use

18

Observable Effects



AMPHETAMINES — Possible signs of use include:

- *Hyperalertness*
- *Hyperactivity*
- *Talkativeness*
- *Mood elevation*
- *Exhaustion*
- *Loss of appetite*

19

Cocaine



- Benzoyllecgonine is metabolite tested
- Used as local anesthetic (e.g. TAC) and in some dental and facial surgeries
- Detected in urine 1-3 days after use

20

Observable Effects



COCAINE — Possible signs of use include:

- *Dilated pupils*
- *Dry mouth or nose*
- *Excessive restless activity*
- *Lack of interest in food or sleep*
- *Euphoria*
- *Irritability, argumentativeness, nervousness*
- *Runny nose, cold or chronic sinus/nasal problems, nosebleeds*
- *Talkative – but conversation often lacks continuity, subject change very rapidly*

21

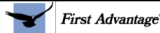
Marijuana



- Delta-9-THC is metabolite of marijuana and cannabis
- Pharmaceutical THC (Marinol) is prescribed for cancer and AIDs patients
- Passive inhalation cannot cause a positive test
- DOT does not accept “medical marijuana use” as a legitimate medical explanation for a THC positive test
- Urine detection period – no more than 30 days; usually 3-5

22

Observable Effects

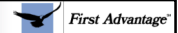


MARIJUANA — Possible signs of use include:

- *Rapid, loud, talking and bursts of laughter in early stages of intoxication*
- *Sleepy or stuporous behavior in later stages*
- *Forgetfulness in conversation*
- *Reduced concentration and coordination*
- *Inflammation (redness) in whites of eyes*
- *Distorted sense of time*
- *Hunger (“munchies”)*
- *Distinctive odor on clothes, hair, etc.*

23

PCP



- Powerful hallucinogen
- No legitimate medical explanation
- Detected in urine up to 1 week after use

24

Observable Effects

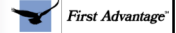


PHENCYCLIDINE (PCP) — Possible signs of use include:

- *Unpredictable behavior, with mood swings from passiveness to violence for no apparent reason*
- *Disorientation with agitation and violence if exposed to excessive sensory stimulation*
- *Severe confusion*
- *Fear or terror*
- *Distorted perceptions of sights and sounds*
- *Hallucinations*

25

Opiates



- Codeine/Morphine/Heroin (6AM) detected
- Narcotic class drugs
- Used medically for pain; codeine used in cough syrups
- Foods containing poppy seeds may produce morphine in urine specimen, but rarely above 2000 ng/mL cut-off level
- Codeine metabolizes to morphine
- Heroin has no approved medical use
- Detected in urine 1-3 days

26

Observable Effects



OPIATES — Possible signs of use include:

- *Impaired coordination*
- *Physical fatigue*
- *Going back and forth from alert to drowsy*
- *Scratches frequently*
- *Constricted pupils that fail to respond to light*
- *Vomiting, nausea*
- *Cold, moist sweat or "gooseflesh"*

27

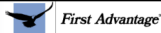
The Cost Of Alcohol Abuse



- DHHS Estimates Exceed \$90 Billion/Year
- Productivity Costs – Over \$27 Billion
- Accidents & Medical Costs
- Family Costs
- Other Costs

28

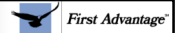
Alcohol And Accidents



- 50% of all serious accidents involve alcohol
- Over 16,000 highway deaths and 500,000 injuries annually
- Drunk driving is the nation's most frequently committed violent crime

29

Alcohol Misuse in the Workplace



- On-duty use of alcohol
- Having an alcohol concentration of 0.04 while performing safety-sensitive duties
- Using alcohol within 4 hours of performing safety-sensitive duties (8 hrs for flight personnel)
- Refusal to take a required alcohol test
- Use of alcohol after an accident until testing is completed or for at least 8 hrs. which ever occurs first



30

Effects in the Workplace

- Workplace signs of alcoholism or alcohol abuse include:
 - *chronic lateness*
 - *excessive absences*
 - *decreased productivity*
 - *poor performance*
 - *problem interactions with others*
- Time and attendance problems and changes in performance and productivity levels cannot trigger a reasonable suspicion test

31

Effect of Alcohol

- Alcohol is a drug
- Alcohol acts as a stimulant
- Alcohol's overall effect is a sedative or depressant
- Alcohol's effects vary from individual to individual
- Alcohol's effects on an individual vary from occasion to occasion
- One drink metabolizes in approximately 1 1/2 hours for a 160 lb person
- The higher the BAC, the more pronounced the effects of alcohol

32

Alcohol Facts

- BAC is based on individual's body weight, amount of alcohol consumed, and the time period over which it was consumed
 - *A 160-lb. person metabolizes approximately 1½ drinks per hour, or BAC decreases at a rate of 0.015 per hour*
- One Drink-alcohol content equivalents
 - *12 ounces of beer*
 - *4½ ounces of wine*
 - *1 to 1½ ounces of 80-86° liquor*
- Alcohol concentration is measurable during absorption, peak, and elimination phases

33

Alcohol Facts

Alcohol concentration is measurable during:

- **Absorption**
 - Stage when alcohol is released in bloodstream, usually within half hour of the drink
- **Peak**
 - Peak concentration is determined by body weight and the amount of alcohol consumed over time
 - Average employee drinks more than one drink at lunch may have an alcohol concentration above .02
- **Elimination**
 - 99% metabolized by liver
 - Only 1% eliminated as alcohol in breath, urine, saliva, etc.

34

Alcohol Concentration

Factors That Determine Alcohol Concentration in Blood/Breath-Summary:

- Size/weight of the drinker
- Amount and speed of drinking (drinks consumed per hour)
- Absorption rate (e.g. gender differences, food intake, carbonation, etc.)
- Rate of metabolism & elimination (gender differences, liver function, smoking, etc.)

35

Discussion:

- Part of brain with different responses to alcohol
- General slowing of various functions, some earlier than others



36

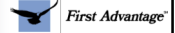
Mental Functions



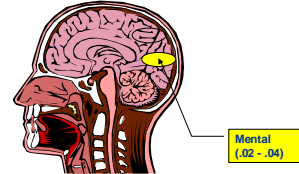
- Mental capacities affected by alcohol use include:
 - *Judgment*
 - *Decision making skills*
 - *Memory*
 - *Computation*

37

Mental Functions



- Cognitive functions are first effected
- Individual is unaware of impact at low levels (.02-.04)
- Judgement, computation, short term memory retrieval



38

Sensory Functions



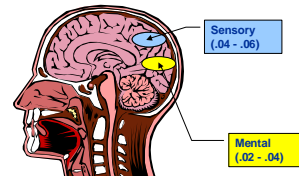
- Alcohol affects sensory perception:
 - *Vision - decreased object tracking, night an peripheral vision background*
 - *Hearing - diminished acuity, ability to sort background noise*
 - *Smell - decreased sensitivity and selectivity*
 - *Taste - decreased sensitivity and selectivity*

39

Sensory Functions

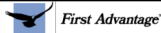


- Sensory functions effected as low as .04 BAC
- Auditory and acuity decreased
- Peripheral vision field decreased
- Taste and smell less discriminatory



40

Psychomotor Functions



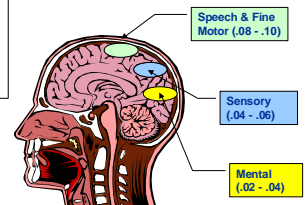
- Speech is one of the earliest motor skills to be affected
- Speech changes may include over-enunciation, slurring, or exaggerated speech patterns
- Coordination, reflexes and fine motor dexterity are diminished
- Reaction times are slower, movements appear delayed or retarded

41

Psychomotor Functions



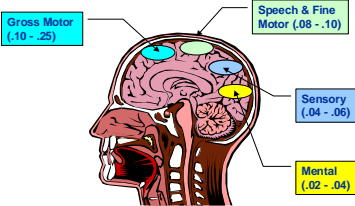
- Speech is the first of the motor skills to be effected
- Fine motor skill impairment
- Eye hand coordination
- Field Sobriety Test - designed to test cognitive and motor function



42

Psychomotor Functions


- Gross motor skills are one of the last categories of functioning to be effected
- Most noticeable area is gait
- Head movements, spatial relationships and torso movements are effected



43

Psychomotor Functions

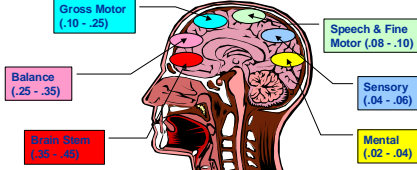
- Balance is controlled by the inner ear
- Alcohol intoxication vertigo (room spin)
- Nausea and vomiting



44

Psychomotor Functions

- Brain stem involvement
- Slowing of autonomic nervous system functions
- Coma (respiratory and cardiovascular function depressed)
- Death (respiratory and cardiovascular systems failure)



45

Signs of Alcohol Intoxication

- 0.02 - 0.08
 - Odor of alcohol on breath
 - Poor judgment, increased risk taking behavior
 - Decreased reasoning ability, forgetfulness
 - Slower reflex reactions

46

Signs of Alcohol Intoxication

- 0.08 and above
 - Clumsiness, staggering, unsteady gait
 - Poor coordination, slowed reflex, diminished reaction times
 - Bloodshot eyes, impaired tracking ability
 - Slurred speech patterns
 - Exaggerated emotion, excitement, belligerent attitude
 - Disheveled clothing, poor personal grooming
 - Flushed complexion, sweating

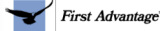
47

Alcohol Concentration

BAC/BrAC	Capability Loss	DOT Action
0.02	Restraint/Awareness	Removal from duty
0.04	Comprehension/Concentration	Rule Violation & Removal from duty/SAP referral
0.06	Judgement	
0.08	Muscle Control/Sensation	State DWI level
0.1	Coordination	State DWI level
0.2	Equilibrium/Sleepy	
0.3	Stupor	
0.4	Coma	
0.5	Death	

48

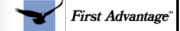
Alcohol Odor



- Alcohol beverages have a characteristic, distinct odor
- Odor of alcohol persists on the breath following alcohol use
- Individuals often try to mask the odor by using breath fresheners

49

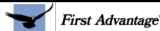
Signs and Symptoms



- Many signs and symptoms of alcohol misuse can be due to other causes
- A good “rule of thumb” is to document two symptoms
- Odor of alcohol on breath is the most definitive sign of recent alcohol use

50

Observable Effects

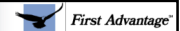


Alcohol Summary:

- Odor of alcohol on breath
- Impaired balance; poor coordination
- Confusion or inability to concentrate
- Sleepy behavior
- Slurred speech
- Red eyes, difficulty focusing



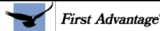
Alcohol Testing Procedures



- Saliva or breath specimen for initial test
 - Must use DOT approved Alcohol Screening Device (ASD)
 - Must be conducted by qualified Breath Alcohol Technician (BAT) or Screening Test Technician (STT)
 - Must document test and result on DOT Alcohol Test Form (ATF)
 - Supervisor should not conduct alcohol test
- If initial test is 0.02 or greater, must conduct confirmation breath test

52

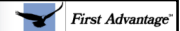
Confirmation Breath Test



- Minimum 15 minute wait after initial test
- Employee must not drink, eat or put anything in his/her mouth
- BAT must use approved Evidential Breath Testing (EBT) device for confirmation test
- EBT must be capable of printing test number and result (triplicate copy)
 - Test result is affixed to ATF
 - Employee and BAT must sign ATF
- Confirmation result is final test result
 - 0.00-0.019 Negative
 - 0.02-0.039 Employee is temporarily removed from duty
 - 0.04-0.04+ Positive; employee removed from duty & must complete SAP process in order to return to duty

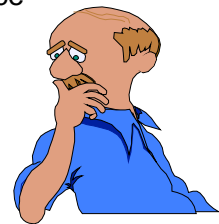
53

Signs of Substance Abuse



CATEGORIES:

- Conduct/performance
- Appearance
- Behavior



54

Signs:



Conduct/Performance

- Inability to complete tasks
- Inconsistent work quality
- Poor quality work; frequent errors or sloppy work
- Difficulty following instructions or procedures
- Inability to focus



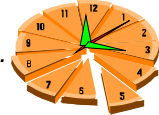
55

Signs:



Attendance

- Tardiness
- Extended lunch time
- Abuse of leave / Unscheduled leave
- "On the job" absenteeism
- Patterns of absenteeism
 - *i.e. Mondays, Fridays, etc.*
- Extended weekends



56

Physical Signs:



Appearance

- Tiredness, exhaustion; or restlessness, hyperactivity
- Slurred speech or pressured, rapid speech
- Drowsiness, agitation, hyper-alertness
- Unsteady gait, pacing, poor coordination
- Disheveled or messy appearance
- Odor of alcohol/marijuana on breath/body

57

Physical Signs:



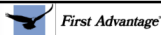
Eyes/Facial

- Bloodshot or red eyes; tearing
- Difficulty focusing
- Dilated (open, large) pupils or constricted (closed, small) pupils
- Hyper-sensitivity to light
- Blank stare
- Droopy eyelids
- Involuntary eye movement (flutter, tics)



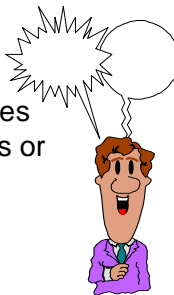
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Physical Signs:



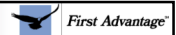
Speech

- Uncontrolled volume
- Uncontrolled talkativeness
- Incomplete verbal responses (does not finish thoughts or sentences)
- Slurred speech
- Rapid, pressured speech
- Silence, failure to respond to others



59

Physical Signs:




Movement/Coordination

- Poor coordination
- Muscle twitches
- Staggeres or sways
- Insensitivity to pain or injury
- Exaggerated or depressed reflexes
- Appears unusually "slowed-down" or "speeded-up"




60


Signs: 

Behavioral

- Uncooperative, rude or insubordinate
- Physical/verbal threats or assault
- Overly sensitive or defensive
- Euphoria or elevated mood
- Irritable or argumentative
- Disruptive to coworkers
- Restless or hyperactive




61

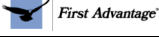
Signs: 

Cognitive


- Short attention span
- Confusion
- Disorientation to time and place
- Memory loss




62

Drug Paraphernalia 

- Roach Clips, Rolling Papers
- Glass Vials, Pipes, Razor Blades, Syringes, Spoons
- Unlabeled Substances or Substances Not in Their Original Containers
- Ordinary Objects Made Into Drug Paraphernalia
 - (Example: Ball Point Pens Made Into Pipes)



63

If You Have Concerns About A Fellow Employee 

- Contact Your Supervisor Immediately
- Contact Your Company's Human Resources Department at **XXXXXX**

64

EAP Services 



- Confidential
- No cost to employees
- Professional

Available 24-hours a day,
7 days a week
* * *

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65