

DRUG EFFECTS ON: ATHLETIC PERFORMANCE

Marijuana

- Impairs skills requiring eye-hand coordination
- Slows down reaction time and reflexes
- Reduces motor coordination, “All my shots have been bricks today”
- Reduces steadiness
- Disrupts balance and posture
- Impairs tracking ability and perceptual accuracy
- Increases risk for athletic injuries and accidents
- Increases heart rate, “It feels like my heart is going to explode”
- Increases blood pressure
- Reduces blood oxygen concentration, “I can’t catch my breath”
- Frequent respiratory problems, “I’m coughing up black junk”
- Impairs concentration, and time appears to move more slowly
- Causes short and long-term memory loss, “I can’t remember the plays, coach”
- Increases time needed to learn new tasks/skills/information
- Difficulty in thinking and problem solving, “They changed their defensive formation, I can’t figure out what to do”
- Heavy marijuana use impairs a person’s ability to form memories and recall events
- Skill impairment may last up to 24 to 36 hours after usage
- Interferes with the ability to set and meet ones goals
- Reduces maximal exercise capacity resulting in increased fatigability
- Interferes with the normal development of stress management skills
- Has no performance-enhancing potential
- It inhibits sweating and temperature control (increases risk of dehydration or heat stress)
- Decreases motivation to perform and/or give maximum effort
- Causes Tachycardia – excessively rapid heartbeat; often defined as one above 100 beats per minute in an adult (also called tachyrythmia)
- Causes Bronchodilation – expansion of the bronchial air passages
- Increases blood flow to the limbs

REFERENCES:

- <http://www.espn.go.com/special/s/drugsandsports/mari.html>
- <http://www.abovetheinfluence.com/facts/drugs-marijuana.aspx#>
- <http://www.nida.nih.gov/infofacts/marijuana.html>
- <http://www.drugabuse.gov/ResearchReports/Marijuana/default.html>
- <http://www.ojjdp.gov/pubs/coachesplaybook/index.html>
- <http://www.nhtsa.gov/people/injury/research/job185drugs/cannabis.htm>
- <http://www.acde.org/common/Marijauana2.pdf>

DRUG EFFECTS ON: ATHLETIC PERFORMANCE

Cocaine

- Can cause disturbances in heart rhythm and heart attacks
- Constricts blood vessels, “I can’t shake this pounding headache”
- Increases heart rate and blood pressure, “It feels like my chest is going to explode”
- Respiratory effects include chest pain and respiratory failure
- May cause fluid to develop in the lungs, aggravation of other asthma and other lung disorders and respiratory failure
- Neurological impairments include strokes, seizures, and headaches
- Can lead to fungal brain infections and hemorrhaging in tissue surrounding the brain
- Gastrointestinal complications include abdominal pain and nausea, “I can’t get in the game, my stomach hurts too much”
- Increases body temperature, “I think I am going to faint”
- Chronically running nose, “Gross. This is getting embarrassing”
- Distorts one’s perception of reality: athlete may perceive an increase in performance and a decrease in fatigue, when in fact a decrease in performance occurs both in strength and endurance of activities
 - ~ Perceived increase in self control and greater work capacity
 - ~ Perceived long-lasting mental or physical work ability without fatigue
 - ~ Perceived ability to forego food and sleep
- May lead to bizarre, erratic and violent behavior
- May experience tremors, muscle twitches/spasms and vertigo (dizzying sensation, feeling of whirling or spinning)
- May experience feelings of restlessness, irritability and anxiety
- Irritability and mood disturbances
- Insomnia
- Anorexia
- Delirium, confusion, paranoia, hallucinations and psychosis are possible
- Dilates pupils, blurring vision
- Optic neuropathy – damage of the optic nerve due to a blockage of its blood supply
- Liver toxicity or liver poisoning
- Ventricular arrhythmia – disorder of heart rate or heart rhythm originating from within the ventricles
- Angina pectoris – recurring spasms/seizures affecting the chest with a feeling of suffocation and impending death
- Myocardial infarction – heart attack, irreversible injury to heart muscle
- Cerebral hemorrhage – bleeding of the blood vessels in the brain

REFERENCES:

<http://www.abovetheinfluence.com/facts/drugs-cocaine.aspx#>

<http://www.nida.nih.gov/DrugPages/Cocaine.html>

<http://www.acde.org/common/cocaine.pdf>

<http://www.nhtsa.gov/people/injury/research/job185drugs/cocain.htm>