



ECHO IDAHO: **Veteran Care for Substance Use Disorders**

Performance Enhancing & Designer Substances

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Performance Enhancing & Designer Substances

Part 1

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Learning Objectives

- Understand performance enhancing drugs of “Testosterone” and “Uppers”
- Gain an understanding of why designer drugs are so popular in the military

Testosterone

- Banned substance use in the military
- Stress effects the level of Testosterone- up to 65% less serum levels (normal levels are 10;.4-34.7 nmol
- Lack of sleep can also cause a decrease in T
- Almost all bases have a supplement shop on base
- CanIn 2017 4.7 per 1000 and 44.5% on TRT had an actual medical indication to be using them
- Increase muscle mass, reduce fatigue, increase sex drive, oily skin, higher voice, fluid retention, gonad shrinkage, decrease in sperm, “roid rage,” Heart damage, headaches, acne, increased risk of blood clots

Natural Testosterone Boosters

- Tongkat Ali- was endorsed by Joe Rogan and Andrew Huberman
 - 6% reduction in cortisol and 37% increase in free T
 - Siberian Rhodiola Rosea- adaptogen that combats fatigue and increased free T
 - Deer Antler Velvet- increase free T and growth hormone levels
 - Chrysin- Bioflavonoid that prevents conversion of T to Estrogen
 - ZMA- Study showed it increased levels of T by 30%
 - Androstenedione- banned and moved to a schedule 3
 - Fenugreek- testofen is extracted and is in “Nugenix”
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- TeamANR Adaptophen, Nugenix Total-T, Force Factor Test x180, Muran testbooster Max and Umzu Testro-X

“Uppers”

- Adderall, Vyvanse, Concerta, Strattera, Intuniv, Dexedrine, Dosoxylin
 - Increases monoamines- dopamine and norepi and reduces reuptake
- 5 Hour energy, Rockstar and others, Ephedra, Ripped Fuel, caffeine pills, NoDoz, Mini Thin's, Ephedrine's, Hydroxycut, Diet Pills
- In one study it had “Less to do with sleep and more to do with confidence and morale”
- Airforce Pilots used dextroamphetamines in Desert Storm
- Been distributed since WW2 to soldiers

Uppers

- Banned by A.F. in 1991, then back in 1996
- “In 2002, the Air Force was dispensing 10 mg of amphetamines for every four hours of flying time for single-pilot fighter missions longer than eight hours and two-pilot bomber missions longer than 12”
- During Vietnam “The standard army instruction (20 milligrams of dextroamphetamine for 48 hours of combat readiness) was rarely followed... in from 1966-1969 armed forces had used 225 million tabs of Dexedrine and Benzedrine”
 - Bravado, Tuned-in, heightened senses, also thought to reduce effects of killing

The Why/What of Performance Enhancing Drugs

- Bioethics of testing on the military members
- Long Missions
- Win at all costs
- Companies want to “Support” the military
- Appearance and performance are everything (South Korea)
- Pressure in Special Ops and other forces
- “Can’t come down”
- Nervous system hyper-resilience
- Sleep is dangerous
- Benzedrine in, Vietnam and the “Super Soldier”

The Why/What of Performance Enhancing Drugs

- David Grossman in his book *On Killing* (stated), Vietnam was “the first war in which the forces of modern pharmacology were directed to empower the battlefield soldier.”
- Initially thought that it would reduce trauma symptoms or stress, but the effects of these drugs later exploded
- Conflicting messages of “no tolerance” yet behind closed doors soldiers encouraged by leaders and peers.

Key Points

- It's all about the mission
- Soldiers are dispensable
- Conflicting messages
- There's purpose to the use, find the purpose and what the substance does you can treat that.
- Don't shame seek to understand

References

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Performance Enhancing and Designer Drugs

Part 2

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Learning Objectives

To become more aware of some of the “designer” substances, the lesser known substances.

Resource used

For this presentation, I drew on the experiences of my clients and what they have told me about the following substances.

I also used the [Drug User's Bible \[Extended Version\]](#), Domic Milton Trott, MxZero Publishing 2022

A quick note on the Shulgin Scale

“A simple reference for reporting the subjective experience of a psychedelic substance...”

Developed for research purposes by A. Shulgin published with co-authors in a 1986 issue of the journal *Methods and Findings in Experimental and Clinical Pharmacology*.

The Shulgin Scale

(+) The drug is active, but the nature of the effects is not apparent

(++) The drug is active, but the user has the option to “accept” the high or go on with their everyday life, with the effects secondary to other activities

(+++) The drug is active, and ignoring the effects is not an option

(++++) The “Peak Experience”, “a state of bliss, a participation mystique, a connectedness with both the interior and exterior universes” and is not necessarily repeatable with multiple uses of the substance

Chemical Psychedelics- A substance which alters perception and cognition, creating an experience which is different to ordinary consciousness

DMT

N-Dimethyltryptamine

Structurally similar to magic mushrooms

Can be synthesized in a lab, also found in ayahuasca

Rating on the Shulgin Scale: +++

Found naturally in the human cerebrospinal system and elsewhere.

“DMT produced...wonderful colors, but it presented an actual locale, the timeline was ordered, and there was no fear...I was transplanted into an unknown setting which appeared to comprise some sort of other-reality.”

Chemical Stimulants– Enhance or improve mental and/or physical capability or function

Adderall

“It’s recreational use is not well established and unsurprisingly, given its composition, addiction potential, and increased tolerance builds quickly”

Peaks quickly and fades over the day

Ritalin/Methylphenidate

“...in that it lacked euphoric edge and drive. Instead, it seemed to settle into an energized plateau of contentment. This wasn’t bad, but in terms of reward and pleasure, it was somewhat lacking”

Intoxicating Depressants- Depressants induce depression of the Central Nervous System (CNS), Intoxicants excite or stupefy to the point where physical and mental control is diminished

GHB

Gamma Hydroxybutyrate

Rating on the Schulgin Scale: +

“Following the initial surge, I generally felt a heady sedation, and a degree of mellow inebriation, but with far more clarity to it than alcohol”

“I can fully understand how some people chase this, to try and get more out of it, by redosing repeatedly and heavily. It feels painless and safe...”

Must not mix with alcohol or other antidepressants

Contd.

Lean

Codeine + Promethazine

Prone to both overdose and addiction, should not be mixed with CNS depressants, stimulants, or dissociatives

“...lifted mood, removed anxieties, and provided a decent comfort bubble for a few hours”

A favorite of Lil Wayne, who popularized it in his lyrics. He was hospitalized for seizures six times between 2012-2018 and it was speculated the seizures were due to codeine overdose

Dissociatives- Produces a sense of detachment from normal sights, sounds, and experiences of self. This dissociation is often classified as a hallucinogenic experience.

DXM

Dextromethorphan (a common cough suppressant found in OTC cold and cough syrups)

Rating on Shulgin Scale: ++

1st Plateau: sense of euphoria, with some distortion and a feeling of heaviness

2nd Plateau: Stronger 1st Plateau effects, possibly with some disconnection and mild hallucinations

3rd Plateau: Stronger 2nd Plateau effects, a more dissociative experience, possibility of nausea, delusions, and memory suppression

4th Plateau: Full dissociation, often associated with hallucinations.

5th Plateau: A range of negative effects, blackout, delirium, dysphoria, psychosis, and even death are possible.

Empathogens & Entactogens– Tend to produce feelings of emotional communion and bonding with others, particularly in terms of empathy and oneness.

MDMA

3,4-Methylenedioxymethamphetamine

Street Names: Molly, Ecstasy, XTC, E

Rating on Shulgin Scale: ++

A “happy pleasant buzz”, “glowing with a dreamy high and a sensual edge.”

Danger of overheating and dehydration

After the comedown, “the background depression and lack of general positivity lasted for several days”

Synthetic Cannabinoids– Synthesized substances which act upon cannabinoid receptors, creating effects which can be perceived as similar to cannabis in one or more aspects.

Spice

Advertised as a cannabis type experience, via smoking, without the cannabis odor.

“Spice” has become a generic term for all synthetic cannabinoids.

Several varieties eventually became highly addictive and increasingly dangerous.

“...hidden dose fluctuations often occurred due to the irregular concentration of the chemicals on the smoking materials upon which they had been sprayed. This was another contributory factor to the significant increase in the number of overdoses and fatalities.”

Banned for retail sale in Idaho in 2010, making Idaho the 14th state to do so. Prior to the ban, Spice could be found in smoke shops and gas stations

Unclassified-Some induce a combination of the previous categories, while others create differing effects as the experience unfolds.

Kratom

Mitragyna Speciosa

Opiate-like experience, a sense of well-being that is not euphoric, and feelings of physical numbness.

Hangover-like feelings the next day

Very real addiction potential

Has been used by people with an opioid addiction to help mitigate withdrawal symptoms.

This is currently legal to sell in Idaho and is most commonly purchased in smoke shops

A large, solid yellow shape on the left side of the slide, tapering from the top to the bottom.

Questions?