**CNS Stimulants**

**CNS Stimulants** are **amphetamines** that are potent synthetic central nervous stimulants capable of causing dependence due to their euphorigenic properties and ability to eliminate fatigue. Amphetamines are similar to natural neurotransmitters such as norepinephrine, dopamine, and the stress hormone epinephrine. By increasing the release and blocking of these substances in the brain, as well as serotonin, in the sympathetic nerves, amphetamines cause an arousal or activating response similar to the “flight or fight” response. (Hanson, Venturelli, & Fleckenstein, 2009).

**CNS Stimulant examples**

* **Prescription:** Ritalin,
* **OTC:** Ephedrine, Naphazoline, Oxymetazoline, Phenylephrine, Pseudoephedrine, Tetrahydrozoline (decongestants), analgesic products with caffeine, “stay awake” pills and beverages with caffeine; dextroamphetamine and other diet pills, phenmetrazine (Preludin)
* **Common:** Caffeine, tea, chocolate (xanthenes)
* **Illicit CNS Stimulants:** Cocaine, MDMA or Ecstasy, designer drug combos, amphetamines without prescription, methamphetamine,

**Street slang:** Cocaine, crack, barbs, basa, base, beam, Bernie, Candy C, Flave, Gold dust, Nose candy, purple caps, Roxanne, tray; amphetamine, speed, bennies, dexies, uppers, copilots, hearts, footballs, white crosses; methamphetamine, ice; methamphetamine/ cocaine + opiates = speedballs, crystal, scramble, Shabu; MDMA, Ecstasy, X, E, XTC, Adam, cat <http://www.whitehousedrugpolicy.gov/streetterms/ByType.asp?intTypeID=3>

**Street slang CNS stimulants** and other drugs gets outdated quickly. This is a good website but it has not been updated since 2005. Slang is regional and changes often <http://www.whitehousedrugpolicy.gov/streetterms/ByType.asp?intTypeID=3>

**Therapeutic uses of prescription stimulants:**

* Treatment of narcolepsy (Methylphenidate/ Ritalin)
* Appetite control for short term weight control
* Attention deficit hyperactivity disorder, ADHD

**Physiological (brain) effects of stimulant abuse:** CNS stimulants increase levels of dopamine and prohibit dopamine that had been released by a neuron to recycle it back into the cell that released it. Excessive amounts of the neurotransmitter build up which causes the euphoric effects. Repeated use can result in long-term changes in the brain’s reward system, leading to addiction and drug tolerance. <http://www.nida.nih.gov/drugpages/cocaine.html>

**Withdrawal effects:** depression, nausea or vomiting, stomach cramps or pain, trembling, or unusual tiredness or weakness, apathy, sluggishness, body may take several weeks to adapt after discontinuing CNS stimulants

<http://www.faqs.org/health/topics/38/Central-nervous-system-stimulants.html>

**Health Risks of stimulant abuse:**

* Increased body temperature, heart rate, blood pressure
* Heart attack, stroke, cardiac arrest or seizure followed by repertory arrest
* Malnourished due to decreased appetite
* Gastrointestinal complications, abdominal pain and nausea
* Snorting: loss of smell, nosebleeds, chronic runny nose
* Severe paranoia
* Sores in the skin, infection, non-healing ulcers
* Deterioration of teeth (meth-mouth)
* Liver disease, kidney damage
* Increased physical altercations

<http://www.nida.nih.gov/drugpages/cocaine.html>, (Hanson, Venturelli, & Fleckenstein, 2009)

**Signs and symptoms of CNS stimulant dependence**

* Euphoric, excessively happy, incessant talking
* Increased physical activity, decreased appetite
* Anxiety, shaky, nervousness, rapid eye movement, dilated pupils
* Sweating not related to physical activity
* Paranoia, extreme irritability, anxiety
* Skin ulcerations, infections, picking at skin
* Teeth grinding, bad teeth, body odor
* Violent and erratic behavior
* Sleeplessness, auditory and visual hallucinations

<http://www.methresources.gov/signs.html>

**Interesting public service advertisement spots for meth recovery and support** <https://adgallery.methresources.gov/media/p/92.aspx>

**Resources**

[Central nervous system stimulants, Information about Central nervous system stimulants](Central%20nervous%20system%20stimulants,%20Information%20about%20Central%20nervous%20system%20%09stimulants) [http://www.faqs.org/health/topics/38/Central-nervous-system- stimulants.html#ixzz1MBVHQ997](http://www.faqs.org/health/topics/38/Central-nervous-system-%09stimulants.html#ixzz1MBVHQ997)

Hanson, Glen R., Peter J. Venturelli, and Annette E. Fleckenstein. *Drugs and Society*. 10th ed. Sudbury, MA: Jones and Bartlett Publishers, 2009. Print.

<https://adgallery.methresources.gov/media/p/92.aspx>

<http://www.methresources.gov/signs.html>

Street terms: Drugs and the drug trade. (2005, April 6). In *Office of National Drug Control Policy*. Retrieved April 9, 2011, from <http://www.whitehousedrugpolicy.gov/streetterms/ByType.asp?intTypeID=3>

National Institute on Drug Abuse. (n.d.). Cocaine. In *NIDA Info Facts*. Retrieved May 10, 2011. <http://www.nida.nih.gov/drugpages/cocaine.html>