

# **Consequences of Stimulant Misuse**

### **Physical**

When misused, prescription stimulants can result in an increased heart rate, body temperature, blood pressure, breathing, blood flow, and blood sugar (NIH, 2018). In more severe cases, an irregular heart rate, heart failure and seizures can occur (NIH, 2018). Those with underlying medical conditions, such as cardiac abnormalities, may be at even greater risk of experiencing life threatening side effects related to stimulant misuse (Stahl, 2017).

#### **Addiction & Withdrawal**

Individuals can become addicted to prescription stimulants. Over time someone may build up a tolerance to the drug, which drives them to use more to achieve the same effect (or high) (NIH, 2018). Consequently, when they stop using, they will likely experience withdrawal symptoms, which may include fatigue, depression, and disruptions in sleep (NIH, 2018).

#### Mental

Stimulants can result cause a host of psychological side effects, which vary depending on the severity of misuse. Some of these side effects include irritability, nervousness, hallucinations, and mood swings (Lautieri, 2021; Stahl, 2017). Furthermore, individuals may experience insomnia or other issues with sleep that can further exacerbate fluctuations or struggles with mood (NIH, n.d.; Stahl, 2017).

# Why People think Prescription Stimulant Use Will Help Them & What it Actually Does

Substance Misuse Prevention Newsletter: A Collection of Readings

November 2021 Volume 4, Issue 3

University Health and Counseling Services

# A Brief Overview of Prescription Stimulants

Stimulants are most commonly prescribed to those with attention deficit hyperactivity disorder (i.e. ADHD) (National Institute on Drug Abuse [NIH], 2018). Some commonly prescribed stimulants include Adderall and Ritalin (NIH, 2018). When someone is taking stimulants as prescribed there is an increase in the availability of dopamine and norepinephrine in the brain, thus improving one's executive functioning (Low, 2020). There is a misconception that those without ADHD will achieve better grades if they misuse stimulants (NIH, n.d.). There is currently no research supporting the use of stimulants in those without ADHD (NIH, n.d.). Furthermore, stimulant abuse can result in addiction, life threatening overdoses and other mental and physical consequences (NIH, 2018). Misuse of stimulants includes crushing, inhaling, injecting, or taking more than prescribed (NIH, 2018). Additionally, misuse includes ingesting any stimulant that is not prescribed to you (NIH, 2018). According to Compton et al. (2018), around 5 million U.S. adults have previously misused prescription stimulants at least one time.

## Articles

National Institute on Drug Abuse – What are Prescription Stimulants?

The American Journal of Psychiatry Article on Prevalence of Misuse

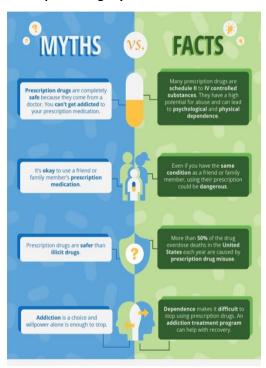
NIH Mind Matters video about Stimulant Misuse

#### Stimulant Street Names

Bennies, Black Beauties, Crank Ice, Speed, Uppers

United States Drug Enforcement Administration (n.d.)

#### **Prescription Drug Myths vs. Facts**



Ascend Healthcare (2021)

# Signs & Symptoms of an Overdose

- Restlessness
- Tremors
- Increased breathing
- Hallucinations
- Confusion
- Aggression
- Panic
- Fever
- Muscle Pain
- Muscle Weakness
- Nausea
- Vomiting
- Diarrhea
- Seizures

NIH (2018)

## **Ways to Increase Alertness without Stimulants**

#### Sleep

Poor sleep can negatively impact our ability to focus, thus worsening procrastination (Shapiro, 2017). Restful sleep is imperative and affects both our mind and body. Addressing underlying issues that influence sleep patterns is crucial in ensuring you can achieve a good night's rest. Improving sleep hygiene, such as going to bed and awakening at the same time every day, avoiding caffeine and all screens before bed, and making sure your room is dark are simple ways to dramatically improve sleep.

#### **Create Routine**

Having a routine can help us better manage our time and feel more productive during the day. Carving out time for commitments can keep us on track and focused on the task at hand. Try using a planner or calendar to organize your schedule as these tools act as reminders and hold us accountable (Shapiro, 2017).

#### **Stay Active**

Exercise is thought to increase brain-derived neurotropic factor (BDNF) levels, which contributes to healthy brain development (Shapiro, 2017). More specifically, BDNF also influences focus, attention, and mood (Shapiro, 2017).

#### **Practice Mindfulness**

Actively trying to be present in the moment can help individuals improve their focus (Shapiro, 2017). Mindfulness takes time and practice but can be a powerful tool when implemented into our lives. Some examples of ways to practice mindfulness may include meditations or approaching an activity with the intention to be present and non-judgmental (Shapiro, 2017).

#### **Articles**

Can You Improve Adult ADHD Without Medications?

Mindfulness Meditation Improves Mood, Quality of Life, and Attention in Adults with Attention Deficit Hyperactivity Disorder

**Learning to Focus Without Adderall** 

"Try to be a rainbow in someone else's cloud"

-Maya Angelou

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