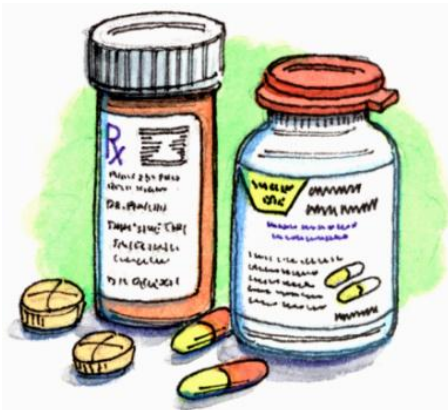


Misuse of "study drugs"

Ritalin, Adderall, Dexedrine etc.

Prescription medications such as **Ritalin**, (*methylphenidate*), or **Dexedrine** (*dextroamphetamine*) or **Adderall** (*amphetamine*) are stimulant drugs, that are most commonly used in the treatment of *Attention-Deficit Disorder* (ADD), *Attention-Deficit and Hyperactivity Disorder* (ADHD) or narcolepsy in some cases. Due to its recent increasing use on our campus (sometimes for means of focus), there is a great need for awareness especially among students. Perhaps with the knowledge of the negative side-effects and the possible legal consequences of recreational use, students will take the steps to prevent this misuse of study drugs.



While people who use Ritalin for ADHD for example may feel only calm and focus due to the action of the drug, people who abuse the drug without a history of ADHD may have a completely different reaction to the drug and its power.

Ritalin works as a traditional stimulant; in the case of Adderall with effects similar to cocaine, students regularly taking it at unprescribed doses are at a high risk of becoming addicted.

Each dose of these powerful drugs makes people feel energetic, awake, and alive. They may be able to handle tedious tasks with ease, due to the added energy it can bring. Additionally, Ritalin can impact the pleasure pathway in the brains of people like this, so in addition to feeling energetic, people might feel blissful and euphoric. Because the brain remembers these signals of bliss, and in time, the brain begins to call out for repeat performances of pleasure, hence psychological addiction may form that is hard to break.

There's a chemical reason for these urges, as altered brain cells may be unable to respond to signals of pleasure found in the environment. So students tend to use it, over and over again. Risks involved with the abuse of prescription stimulants are

- high blood pressure
- sleep deprivation
- paranoia
- irregular heartbeat
- seizures

However, beside the medical concerns of academic performance-enhancing drug use, there is also a psychological effect which begins to erode the user's own self-confidence while self-doubt begins to take its place – questioning one's natural ability to achieve "good" grades on his/her own. With such self-doubt may come the obvious question: you use this "boosting option" for difficult classes only or it will gradually consume other parts of your life as well? Nine out of ten users would say, "I know when to stop, I am in control."

However, drug addiction is often referred to as a progressive illness. It tends to demand and consume more and more of the user's life. We sadly know this from the need of rehabilitation centers operating with full capacity while recovery and emotional processing is not so fast not only for users, but for loved ones as well who fell victims of living together with an addict.

Signs of "study drug" addiction (Ritalin)

Just like other stimulants, study drugs increases the levels of dopamine reaching neuron receptors in the brain. Dopamine is a naturally occurring chemical in the brain essential for activation of the brain reward system. The brain reward system reinforces behavior that activates dopamine production. Ritalin influences a much higher amount of dopamine to reach receptors in the brain for those who don't have ADHD. After repeated abuse, taking Ritalin basically becomes a learned behavior, spurring on the compulsion to take Ritalin regardless of consequences.

A telltale sign of a problem is continuing to use Ritalin despite wanting to quit. If someone recognizes that there are severe negative consequences from using Ritalin — such as straining relationships and spending unmanageable amounts of money on the drug — but still can't quit on their own, an addiction is likely present.

Effects of Adderall

People regularly taking Adderall at unprescribed doses are too at a high risk of becoming chemically addicted, due to its effects similar to cocaine. Over time, those habitually using Adderall develop a tolerance to the drug and are unable to function normally without it. Common signs of an Adderall addiction include:

- needing larger doses to feel the drug's effects
- taking the drug despite knowledge of the harm it's causing
- not being able to finish work without Adderall
- spending a lot of money getting the drug
- being unable to feel alert without the drug

No one intends to become addicted to Adderall. Usually, the problem starts as a way of increasing productivity on a stressful day at work or to study for an important test. Some people even fake the symptoms of attention deficit hyperactivity disorder (ADHD) to get their own

prescription for the drug. This is how many people eventually become addicted to Adderall and soon prioritize the drug over everything else.

While Adderall increases concentration, euphoria and energy, the crash that follows after someone stops taking the drug results in a reversal of these effects. People who have a higher tolerance for Adderall have a more severe withdrawal. *Common withdrawal symptoms include:* depression, irritability, headaches, oversleeping, insomnia, increased appetite, fatigue, nightmares, difficulty concentrating, achiness, anxiety, suicidal thoughts

Understanding Dexedrine

Dexedrine is a brand name for the prescription drug dextroamphetamine. By increasing neural signaling via several neurotransmitter systems, Dexedrine stimulates the central nervous system (CNS) and boosts several physiologic processes, leading to potential heightened alertness, a subjective increase in energy or vigilance and focused attention. Though the effects may be similar, Dexedrine differs from some other commonly prescribed stimulant medications like *Concerta* and *Ritalin* as those are formulated with another drug called methylphenidate. Though different, both substances work as CNS stimulants and are prescribed for similar conditions

The risk of side effects may increase when the substance is combined with antidepressants or over-the-counter cold medicines (e.g., decongestants containing pseudoephedrine). This mixture can cause very high blood pressure and dangerous changes in the heart rate. Long-term Dexedrine abuse is associated with a wide range of ill effects to one's physical and mental health.

The drug can give rise to several psychological issues, including: *manic symptoms like an inability to sleep, very high energy, and difficulty making good choices.* These symptoms are related to bipolar disorder as well as

psychotic symptoms like hallucinations, delusional thinking, paranoia, and a disconnection from reality. Similarly occurs, aggression in the form of physical violence or verbal outbursts against self or others.

Physically, Dexedrine may carry a link to long-term suppression of growth. Taking a stimulant medication consistently has been shown in some cases to slow the growth rate of the user. This can be seen by losing weight, failure to gain weight expectedly, and failure to grow taller. In some cases, Dexedrine can diminish appetite to a degree that extreme weight loss and malnutrition can occur. People addicted to Dexedrine may show symptoms by:

- placing more importance on the drug than other priorities.
- having fewer healthy relationships and increased isolation.
- losing their job or drop out of school due to use.
- finding themselves in legal or financial trouble.
- having unexplained changes in mental or physical health.
- showing a decline in self-care.

According to the American FDA, it is possible to overdose on Dexedrine, with doses as low as 2mg. Even one dose, if that dose is too large, could cause a massive hit to the heart that could result in death. Study drugs are just that powerful, and its continued abuse can push addicted people yet closer to the edge.

Therapies for “study drug” addiction

People with addictions have brain cells that work best when there's a hit of drug available. Unfortunately, there are no medications that can undo that damage and force the brain to work as it should, but you can take back control if you reach out and ask for help.

Addiction is characterized by a compulsion to continue using substances, despite their harmful medical and

social consequences mentioned earlier. Recovery begins by truthfully admitting your own motivations (beyond curiosity) that led you to resort to use such “study drug” in the first place. Often time it is inadequacy issues (*you are not good enough*) or unrealistic expectations; inefficient study techniques; family issues or abuse history. However, whatever the hidden motive is, if you start working on your fears, insecurities, or doubts early-on you will get much further ahead resolving it while experiencing a sense of freedom and certainly a deeper understanding your own personal needs.

Further articles on the topic:

- Bucher, J. et. al. Psychostimulant Drug Abuse and Personality Factors in Medical Students. Jefferson University. 2015.
- Dimintrascu, C. et. al. Substance Abuse Among Physicians and Medical Students. Medical Research Journal. 2014 (3) 26-36.
- Caba, J. Drug Abuse Among Medical Residents on the Rise: Growing Number of Anesthesiology Students Admit to Abusing Drugs. Med Daily. 2013.
- Cassels, C. Stimulant Use Exceptionally High Among Medical Students. 2013. Medscape.
- Emanuel, R. et. al. Cognitive Enhancement Among Medical Students. 2015.

Need Help?

Feel free to set confidential appointments with your on-campus mental health counselor during counseling office hours in person or by e-mail: mhc@human-service.hu or phone (06) 30-386-9898 You can also use our online booking system. For more information you may seek us at www.mentalhub.hu

Did you know as a student you are titled to attend six (hour long) confidential sessions/talks for free of charge?

Source of info: available drug rehab centers and prevention websites, articles relating.