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Its

## Use and Abuse in Adults and Adolescents

# RITALIN



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When one thinks of the prescribed drug Ritalin, it's usually associated with hyperactive children and adolescents. But now there is growing evidence that adults as well as young people are abusing this often prescribed drug.<sup>1</sup> These adults are becoming hooked on its caffeine-like jolt and breaking the law to obtain it.

Ritalin is the brand name of a prescription drug that is primarily used to treat Attention Deficit/Hyperactive Disorder (ADHD) and narcolepsy. Its main active ingredient is the central nervous system stimulant, methylphenidate. Methylphenidate affects an important neurotransmitter in the brain, dopamine, and is thought to activate the brain stem arousal system and cortex.<sup>1</sup>

Although methylphenidate is similar to cocaine and amphetamines, it acts as a mild-to-moderate stimulant if it is taken within its prescribed dosage. It has a calming effect on people with ADHD and makes it possible for them to focus on tasks. But, for children and adults who do not have ADHD, they are discovering that this drug can produce an emotional high resembling an extreme caffeine-like buzz. It is often abused when taken at high dosages for its euphoric effect and by students who believe that it improves their concentration and prolongs their ability to study.

Because methylphenidate has a high potential for abuse and dependence, the federal government strictly regulates its production as a Schedule II controlled substance under DEA guidelines, which means dealing this drug is considered a serious offense. Unlawful possession of psychostimulants and selling or distributing them can lead to a prison term or a fine of up to \$10,000 under federal law. Despite this, there has been a tremendous increase in its manufacturing and use since 1990.<sup>2</sup> Specifically, legal production has increased over 600 percent in the past five years<sup>2</sup> to meet the demand for prescriptions — making the United States account for approximately 90 percent of the world's production and consumption of the medication.<sup>2</sup>

Psychostimulant drugs, when taken orally as prescribed, are an effective and appropriate course of treatment for ADD/ADHD. But prescribing physicians must be acutely aware that even when taken correctly at prescribed dosages, Ritalin has the potential for abuse and dependence.

### Ritalin Abuse

Most illicit drug use in the United States involves drugs that are manufactured illegally and often smuggled into the country. This is not the case with Ritalin, which reaches the illegal drug market by deliberate diversion from legitimate production. Similar to other prescription medications, Ritalin is diverted through theft, illegal sales from pharmacies and users, forged prescriptions and by consumer scams involving “doctor shopping” — when a consumer obtains prescriptions from multiple physicians. *Ritalin was listed among the top ten drugs most frequently stolen from pharmacies between 1990 and 1995.*<sup>2</sup>

Ritalin also is diverted to illegal use by school children, the segment of the population that abuses the drug the most. A recent survey of Wisconsin schools found that most schools did not control how Ritalin was stored or dispensed on school property, making it easy to steal, give away or sell the drug.<sup>3</sup> Approximately 16 percent of the students surveyed reported that they had been asked to sell, give or trade their Ritalin to other students. Even some parents have reported abuse of the Ritalin prescribed to their children.<sup>4</sup>

College students are increasingly vulnerable to Ritalin abuse. They begin abusing Ritalin recreationally, as well as in an attempt to stay awake, soon reaching a tolerance that requires even more of the drug. The usual progression of addiction symptoms is predictable, with drastic changes in sleep patterns that include long periods of wakefulness and “crashes” of long sleep periods. Family, friends and school performance are also negatively impacted.

Students at a New England liberal arts college were surveyed on their non-prescription use of stimulants.<sup>5</sup> Over 16 percent of the students reported they had used Ritalin recreationally and over 12 percent had snorted it. A majority of the students reported that they knew other students who used Ritalin without a prescription. Among traditional college students, those under 24 years of age, levels of Ritalin abuse appear to be the same as that of cocaine and amphetamine use.

There have been several cases where adults became so addicted to the high they get from Ritalin that they began

Art Untitled by Aranda Michaels Courtesy of NARSAD

to break the law. A mother in Wisconsin was suspected of robbing eight pharmacies in order to obtain more of the drug. An elementary school teacher in Utah was sentenced last year to 30 days in jail for stealing Ritalin from a school safe. And a Baltimore police officer was suspended without pay and charged with altering a prescription to obtain Ritalin.<sup>7</sup>

Ritalin is abused in a variety of ways, often with unrecognized consequences. The tablets are taken orally, crushed into powder and snorted or dissolved in water and injected. Ritalin is also mixed with heroin, known as a “speedball,” for more potent effects.<sup>4</sup> The inert ingredients in Ritalin tablets are not harmful when the medication is taken orally, but they can cause serious medical complications when the drug is snorted or injected.<sup>1</sup> Since Ritalin is a psychostimulant drug, it is classified as an amphetamine — carrying all of the physical and emotional complications associated with the abuse of this classification of drug. These include appetite loss, tremors, muscle twitching, convulsions, severe headaches, irregular heartbeat and respiration, anxiety, paranoia and hallucinations. Injection of Ritalin also exposes the user to other dangerous consequences such as severe infections, overdose, blood clots and poisoning, skin and circulatory problems, hepatitis and HIV/AIDS. Snorting the drug may also damage the nasal cavities. Ritalin abuse can also result in fatality. A recent medical report described the death of a 19-year-old man who had been snorting Ritalin and drinking with friends. He had not abused Ritalin on a regular basis.<sup>6</sup>

Ritalin abuse may lead to a tolerance that requires higher doses of the drug to produce its euphoric effect. Dependence and addiction to Ritalin are characterized by increasingly higher doses of the drug that are taken during increasingly frequent binges and followed by periods of marked depression.<sup>2</sup> This pattern continues to escalate despite serious medical and social consequences.

## Recommendations

Ritalin is not a “bad” medication. Controversy surrounds the increasing number of ADHD diagnoses and the consequent increased prescription of Ritalin. However, when used and monitored correctly, Ritalin does appear to enable people with ADHD to focus and concentrate while possibly reducing their potential for substance abuse.

Problems arise when Ritalin is not taken therapeutically. Young people and adults who think that Ritalin isn’t dangerous need to be educated about its potential for abuse, dependence and death. Stricter controls on how Ritalin is dispensed in public settings, such as schools, need to be developed. All those take or are involved with someone who takes the drug should be educated about adverse side effects.

Drug and alcohol clinicians need to be aware of this trend of Ritalin abuse and be prepared to treat both the addiction and ADD/ADHD concurrently in order to

prepare individuals for an appropriate recovery program. Treatment of the addiction to psychostimulants should include assistance in coping with the physical and psychological symptoms of Ritalin abuse. Many individuals think that they are no longer able to think clearly at work or school, as the high created by the psychostimulant had become their normal state of being.

Treatment of the ADD/ADHD and prevention of Ritalin abuse must include the exploration of medication alternatives, such as bupropion hydrochloride and methylphenidate HCl. Bupropion hydrochloride, usually prescribed for depression, has shown to be an effective, non-addictive treatment. Methylphenidate HCl is like Ritalin in that it’s also a psychostimulant, but it’s formulated to be non-crushable and generally taken only once per day. This allows greater control of the medication by parents, schools and doctors. Behavioral-cognitive approaches should also be employed to assist the patient with impulse control and organization of schoolwork.

As more individuals are diagnosed with ADD/ADHD, the potential for Ritalin abuse and addiction increases. Many do not realize the potential dangers, and it is the role of prevention specialists to educate individuals about this new trend. ▼

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