



The real truth about Ritalin (Methylphenidate)

Methylphenidate is a medication prescribed for individuals (usually children) who have an abnormally high level of activity or attention-deficit hyperactivity disorder (ADHD). According to the National Institute of Mental Health, about 3 to 5 percent of the general population has the disorder, which is characterized by agitated behavior and an inability to focus on tasks. Methylphenidate also is occasionally prescribed for treating narcolepsy.

Health Effects

Methylphenidate is a central nervous system (CNS) stimulant. It has effects similar to, but more potent than, caffeine and less potent than amphetamines. It has a notably calming effect on hyperactive children and a "focusing" effect on those with ADHD.

Recent research at Brookhaven National Laboratory may begin to explain how methylphenidate helps people with ADHD. The researchers used positron emission tomography (PET - a noninvasive brain scan) to confirm that administering normal therapeutic doses of methylphenidate to healthy, adult men increased their dopamine levels. The researchers speculate that methylphenidate amplifies the release of dopamine, a neurotransmitter, thereby improving attention and focus in individuals who have dopamine

signals that are weak, such as individuals with ADHD.

When taken as prescribed, methylphenidate is a valuable medicine. Research shows that people with ADHD do not become addicted to stimulant medications when taken in the form prescribed and at treatment dosages. Another study found that ADHD boys treated with stimulants such as methylphenidate are significantly less likely to abuse drugs and alcohol when they are older than are non-treated ADHD boys. Because of its stimulant properties, however, in recent years there have been reports of abuse of methylphenidate by people for whom it is not a medication. Some individuals abuse it for its stimulant effects: appetite suppression, wakefulness, increased focus/attentiveness, and euphoria. When abused, the tablets are either taken orally or crushed and snorted. Some abusers dissolve the tablets in water and inject the mixture, complications can arise from this because insoluble fillers in the tablets can block small blood vessels.