

MISUSE OF LEGAL STIMULANTS BY CHILDREN AND ADOLESCENTS

Misuse of legal stimulants by children and adolescents is a growing concern for parents and health-care providers. The most common legal stimulant is caffeine, but there are other legal stimulants present in energy drinks, over-the-counter medicines, and other nutritional/dietary supplements. Active ingredients include caffeine, ephedrine, ginseng, guarana, taurine, and B-vitamins, among others. The scientific knowledge regarding the effects and consequences of legal stimulant use among children and adolescents is limited, but emerging.

Red Bull led the introduction of energy drinks in the United States. Since that time there has been an explosion of energy drinks with appealing names like Rock Star, Amps, Full Throttle, and Monster. These drinks typically contain caffeine, gaurana, taurine, ginseng, glucuronolactone, ephedrine (and its alternatives) and B vitamins. Other legal stimulants can be found on store shelves in the form of cold medicines, such as Sudafed, No-Doz, and other dietary and nutritional supplements. Children and adolescents may use legal stimulants for a number of reasons, including the desire for increased energy and awareness, lack of sleep, taste, sports and academic performance, peer group pressure, weight loss, and attractive packaging. Recent scientific studies have found that nearly a third of adolescents aged 12 to 17 regularly consume energy drinks. Parents should be aware of this growing trend as well as the content of energy drinks, other legal stimulants, and the health risks of regular use.

For energy drinks and energy-enhancing nutritional supplements, the potential for harm from legal stimulants depends upon the active ingredients. The most common active ingredient is caffeine. Caffeine is among the few legally available stimulants to children and adolescents. Caffeine stimulates the central nervous system. Effects of caffeine include anxiety or nervousness, increased blood pressure, and an accelerated heart rate. The Food and Drug Administration (FDA) limits caffeine in soft drinks because they are classified as foods. However, caffeine and other ingredients in energy drinks are not regulated because they are categorized as dietary supplements. Consequently, children and adolescents may consume levels of caffeine with each energy drink or energy shot that are over the levels recommended by the FDA. For example, some 2-ounce energy shots contain well over 200 milligrams of caffeine. This is the equivalent of four to five 12-ounce colas. One study found that after drinking one retail energy drink or energy shot, 70% of children (5 to 12 years old) and 40% of teenagers (13 to 19 years old) had surpassed safe levels of caffeine for their body weight. Finally, a lot less is known about energy-boosting herbal supplements. Thus, the risk of any level of use is unknown.

Behavioral Effects

The behavioral effects of legal stimulants include increased alertness, jitteriness, nervousness, restlessness, dizziness, and sleep disturbance. Psychiatric adverse effects include psychosis, mania, and anxiety. Health-care providers recognize the link between caffeine consumption and caffeine-induced anxiety and caffeine-induced sleep disorders. Teachers also report the impact of energy drinks

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or goals might involve:

- A way of acting: like being consistent
- A way of feeling: like balancing affection propely
- A way of thinking: like cooperating for the child's benefit
- A way of coping: like maintaining positive relationships

Behavior Therapists and Cognitive Behavior Therapists usually focus more on the current situation and its solution, rather than the past. They concentrate on a person's views and beliefs about their life, not on personality traits. Behavior Therapists and Cognitive Behavior Therapists treat individuals, parents, children, couples, and families. Replacing ways of living that do not work well with ways of living that work, and giving people more control over their lives, are common goals of behavior and cognitive behavior therapy.

HOW TO GET HELP: If you are looking for help, either for yourself or someone else, you may be tempted to call someone who advertises in a local publication or who comes up from a search of the Internet. You may, or may not, find a competent therapist in this manner. It is wise to check on the credentials of a psychotherapist. It is expected that competent therapists hold advanced academic degrees and training. They should be listed as members of professional organizations, such as the Association for Behavioral and Cognitive Therapies or the American Psychological Association. Of course, they should be licensed to practice in your state. You can find competent specialists who are affiliated with local universities or mental health facilities or who are listed on the websites of professional organizations. You may, of course, visit our website (www.abct.org) and click on "Find a CBT Therapist."

The Association for Behavioral and Cognitive Therapies (ABCT) is an interdisciplinary organization committed to the advancement of a scientific approach to the understanding and amelioration of problems of the human condition. These aims are achieved through the investigation and application of behavioral, cognitive, and other evidence-based principles to assessment, prevention, and treatment.

on students' academic functioning, including more disruptiveness, less focus, and increased off-task behavior. Other problematic behaviors associated with adolescents who frequently consume energy drinks include higher-risk behaviors such as other substance use (alcohol and marijuana), sexual risk taking, fighting, and nonuse of seatbelts.

Physical Consequences

Legal stimulant use has been linked to a number of physical consequences, including arrhythmias, headaches, sleep difficulties, dehydration, gastrointestinal problems, increased urine output, seizures, strokes, tooth erosion, accelerated heart rates, and even death. Other negative health consequences that have been associated specifically with the consumption of energy drinks are liver and kidney damage, respiratory disorders, psychotic conditions, irregular and rapid heartbeat, and high blood pressure. Children and adolescents with cardiovascular, kidney, or liver disease, seizures, diabetes, behavioral disorders, or hyperthyroidism may be at greater risk for negative effects of legal stimulant use.

The cessation of legal stimulants can also have adverse effects on the health and behavior of children and adolescents. During caffeine withdrawal, children and adolescents may experience reduced attention and headaches. Other common symptoms of caffeine withdrawal include drowsiness, anxiety, depression, nausea, and vomiting.

Intervention Strategies

Although safe levels of energy drink and caffeine consumption in children and adolescents have not been established, there clearly can be health hazards associated with legal stimulant use. Screening by health-care providers for episodic and chronic legal stimulant consumption when conducting diet and substance-use histories is recommended, particularly for at-risk populations. Those at risk include youths who desire enhanced performance, such as athletes, children with histories of high-risk behaviors, pregnant teens, children with health conditions, as well as children who suddenly seem to be more anxious, have trouble sleeping, or show changes in nutrition and eating habits. Parents can also play a role in monitoring the diets of children and adolescents. This may also involve knowing who their child's friends and their friends' parents are and their use of legal stimulants. Although many young people may not be deterred from energy drinks due to the desire for an energy boost, it is still important to educate them and their families about the impact of legal stimulants and, in particular, energy drinks.

Intervention for misuse of legal stimulants may be warranted when misuse yields greater symptom severity indicators of dependency, such as tolerance and withdrawal and when use begins to interfere with functioning in different life domains. For children and adolescents, disruption in school functioning may be the primary context affected by stimulant misuse. Cognitive and behavioral strategies include a variety of interventions and include assessment of the relationships between thoughts and behaviors, learning coping and refusal skills, and planning for situations that increase risk for misuse of legal stimulants. Specific strategies that may be useful to educators and practitioners in addressing stimulant misuse include the following: encouraging young people to participate in an informed cost/benefit

analysis, assessing situations that lead to legal stimulant use, addressing the influence of others (i.e., mothers, coaches, peers, etc.), helping young people develop refusal skills, and health education interventions that provide the same effects desired by young people who drink energy drinks (i.e., increased energy, improved sports performance). Examples include eating a nutritious diet, getting adequate rest, and participating in regular physical activity. For children and adolescents who reduce or stop use of legal stimulants, parents and health-care providers can help them learn skills for coping with the withdrawal symptoms. On a larger scale, it is important for communities to advocate for increased knowledge of the risks of legal stimulant use and institute preventive measures such as the elimination of energy drinks from school vending machines.

For more information or to find a therapist:

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