PURDUE UNIVERSITY
Extension - Health and Human Sciences

High Energy, Hidden Risks: The Truth About Energy Drinks and Caffeine Usage in Adolescents

Fact Sheet

Some students struggle to wake up early for school and keep their energy up throughout the day. This may be one reason adolescents are turning to energy drinks. They need that extra energy boost! Research done by the National Institutes of Health (NIH) and UCLA Health says that 30% of adolescents in the U.S. report regular consumption of energy drinks.

Are you one who notices neat marketing techniques? Yes, you may have guessed it. The colorful packaging, candy-like flavorings and widespread availability targets youth! These factors may contribute to this recent trend. Many brands sponsor beloved sports teams and/or partner with social media platforms and influencers. It is important that both adults and youth understand that energy drinks can pose serious health concerns.

How much caffeine is safe?

- According to the American Academy of Pediatrics, the current recommendation for adolescents ages 12-18 is less than 100 mg of caffeine daily. This is just 8 ounces or one cup. It is recommended that children under the age of 12 not consume caffeine. The recommendation for adults is less than 400 mg per day.
- Note that many energy drinks can contain 100-200 mg of caffeine per serving!
- Consuming high amounts of caffeine can be risky for adolescents. Did you know that caffeine acts as a stimulant? It increases alertness, and combined with the sugar found in energy drinks, works to create a "jolt" of energy. The high can include side effects such as increases in heart rate and blood pressure, jitters and insomnia, quickly followed by a crash! According to medical professionals, depending on the frequency with which youth consume energy drinks, adolescents can develop a dependence on this high. It can be hard to break that cycle, which may lead to withdrawal symptoms like a headache or depressed mood. And for adolescents already facing mental illnesses, these effects can be heightened.

What should parents/guardians know?

- Understand what healthy caffeine usage is. The first step to healthy caffeine usage begins in the store. There are several ingredients parents/guardians can inform adolescents to look out for when purchasing caffeinated beverages. Take a look at the amount of caffeine that is in one serving. This can be found on the Nutrition Facts Label. Energy drinks can contain anywhere from the same amount of caffeine as one cup of coffee to the amount in three to four cups of coffee. Remember, one cup of coffee has about 75 mg of caffeine! Energy drinks also contain several other additives, such as amino acids like taurine, added sugars and other vitamins to help provide that temporary boost of energy.
    - Taurine is an essential amino acid for babies, but adolescents and adults naturally produce it and don't necessarily need to consume more of it. There are also additional herbs and vitamins such as ginseng and ginkgo biloba. These usually do not pose any risks.
    - Added sugars! These act as an "upper," providing a short-term boost of energy. These do not add any nutritional value. They actually have downsides and can cause major fluctuations in blood sugar. Medical professionals advise against consuming additional added sugars and artificial sweeteners like aspartame, and sucralose. Research is still being conducted to determine the potential long-term harmful effects of artificial sweeteners.

The quick boost of energy these drinks provide isn't sustainable long term. If it is necessary to consume caffeine, natural sources of caffeine, such as plain tea and coffee without added sugars, are a healthier choice. As they are free from the additives found in energy drinks!

For adults, additional health benefits of tea and coffee have been proven based on research. However, parents should know there is not much data on the health effects for adolescents and kids.

Sources: UCLA Health Clinical Nutrition Clinic - Maanasi Kademani
EA/EOU

Can you break the caffeine cycle? How to help your adolescent.

Many adolescents may already be facing caffeine dependence. Don't worry, there are safe ways to start lowering reliance on caffeine!

Parents/guardians can begin by having an honest conversation with their adolescent about the root issues they are trying to address with caffeine, such as tiredness or difficulty concentrating. Try including the following in your conversation:

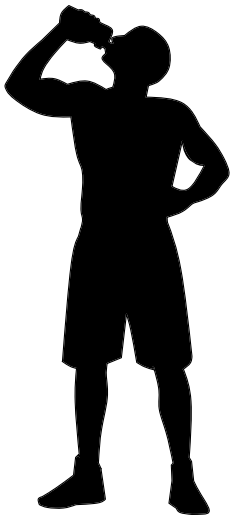
- Approach the conversation with honesty and do not focus on the negatives. This can help the message of healthy intake come across.
- Listen to your adolescent, while also acknowledging the benefits they are seeking. Remember to share your concerns for long-term use and the impacts of added ingredients. If your adolescent persistently faces issues with alertness and tiredness, make an appointment with a primary care physician for additional advice.
- You can include that many problems can be solved without caffeine more sustainably, such as with proper sleep hygiene, adequate protein intake, and exercise!

For adolescents who use caffeine more regularly, the effects of withdrawal might be more of a concern. These symptoms depend on how much caffeine the adolescent is used to consuming on a regular basis. An adolescent that consumes two energy drinks a day, versus one who drinks them once a week, is more likely to experience withdrawal headaches and other withdrawal symptoms. According to medical professionals, apart from headaches, adolescents may also experience changes in mood or difficulty sleeping.

After having a conversation with your adolescent about healthy caffeine usage, consider scheduling an appointment with their family practitioner. They will be able to provide assistance when your adolescent gradually reduces their caffeine intake.

Please remember that stopping "cold turkey" may be very uncomfortable and there are possible side effects.

Name	Standard Amount	Caffeine in Standard Amount	Caffeine in 16 Oz.
Energy Drinks			
5-Hour Energy	2 oz.	200 mg	1,600 mg
Sobe No Fear	16 oz.	182 mg	182 mg
Monster	16 oz.	172 mg	172 mg
Rockstar	16 oz.	160 mg	160 mg
Red Bull	8.4 oz.	79 mg	151 mg
Coffee, Tea			
Brewed Coffee	8 oz.	163 mg	324 mg
Average Coffee	8 oz.	95 mg	190 mg
Iced Tea	8 oz.	Average of 47 mg	94 mg
Soft Drinks			
Mountain Dew	12 oz.	54 mg	72 mg
Coke	12 oz.	34 mg	45 mg
Diet Coke	12 oz.	45 mg	60 mg
Pepsi	12 oz.	38 mg	51 mg
Sprite	12 oz.	0 mg	0 mg



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