

THE ANTIDOTE

News and Notes from the Blue Ridge Poison Center at UVA Health

Energy Drinks and Youth: What's the Buzz?

A member of Congress has asked the U.S. Food and Drug Administration (FDA) to investigate whether the PRIME™ brand energy drink pose health risks to children. If you aren't familiar with PRIME™ energy drinks, you can be forgiven. The products are almost exclusively marketed on TikTok, YouTube, and other social media platforms, where they have developed a cult-like following among children, teens and young adults. Posting images of oneself with an empty can of PRIME™ has become a status symbol, and stores are having a hard time keeping the beverages in stock.



Cans of PRIME Energy Drink. Image from the manufacturer's website <https://drinkprime.com/>

Energy drinks claim to increase alertness, productivity, and physical performance. Products accomplish this with caffeine, a stimulant. Other common ingredients in energy drinks may include guarana, taurine, yerba mate, or green tea, which are also sources of caffeine. Why the concern about PRIME? Each 12 ounce can contains 200 mg of caffeine. That is the same amount of caffeine as found in 2 cups of coffee, 6 cans of cola, or 2½ cans of the popular energy drink Red Bull™.

Though caffeine is considered safe for most adults in moderate amounts, excessive amounts of caffeine consumed in a short period of time can be dangerous, and even toxic. The FDA says that most healthy adults can consume up to 400 mg of caffeine a day without dangerous health effects. But there is no proven safe dose of caffeine for children. The American Academy of Pediatrics (AAP) advises against caffeine for children under 12 and against any use of energy drinks for all children and teens. They also suggest limiting caffeine to at most 100 mg daily for those ages 12-18 years old.

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Why the Concern?

- In both kids and adults, **too much caffeine** can cause jitters and nervousness, upset stomach, headaches, faster heart rate, and higher blood pressure.
- After the initial boost, caffeine may cause **energy crashes**. Students suffering from such an energy crash may feel drowsy, depressed, and have difficulty paying attention in class.
- Caffeine is a diuretic, meaning that it **causes the body to lose water**. This can result in dehydration, weakness, or fainting. These effects are especially possible if high amounts of caffeine are consumed before or during athletic activity.
- Caffeine has a half-life of about 5 hours. A “half-life” is the amount of time it takes for the body to eliminate half of any drug consumed. Therefore, if a student drank an energy drink with 200 mg of caffeine after school, 100 mg would still be in their system at bedtime. **This can cause sleep problems**. Sleep is critically important for the brain growth and development which happens during adolescence. The AAP says children and adolescents who do not get the recommended amount of sleep for their age are at increased risk for chronic conditions such as diabetes, obesity, and poor mental health, as well as injuries, attention and behavioral problems, and poor academic performance.
- In addition to caffeine, many energy drinks contain **large amounts of sugar**. A diet high in sugar can contribute to weight gain and tooth decay.
- People who have certain chronic health conditions, who take prescription drugs, and women who are pregnant or breastfeeding could have **additional health problems** from caffeine.



How can adults help children and teens avoid problems with caffeine?

- Energy drinks are often sold in brightly colored containers and sweet flavors that are appealing to children. If young children are in your home, keep all energy drinks and other caffeinated products up high, out of their sight and reach.
- Talk to children and teens about the effects of caffeine on the body, the amount of caffeine in energy drinks and other products, and the danger of consuming too much caffeine.
- Coaches: educate athletes about the difference

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POISON TRIVIA



TRUE or FALSE? If you are stung by a jellyfish, you should apply urine to relieve the pain.

Answer on page 5

between energy drinks and sports drinks, and the potential dangers of consuming highly caffeinated beverages during games and workouts.

- D. Talk to children and teens about the importance of sleep and the role that caffeine plays in disrupting quality sleep.
- E. Discuss caffeine-free ways to feel energized, including eating well, staying hydrated, and getting regular exercise.
- F. Everyone can model good behavior by not consuming energy drinks in front of kids.

Caffeine Deaths are Rare but Possible

On April 26, 2017, a South Carolina high school student died at school from a caffeine-induced *arrhythmia*, or abnormal heart rhythm, according to Coroner Gary Watts. During an arrhythmia, the heart is unable to pump enough blood to the brain, heart and other organs. The teen consumed three caffeine-laced drinks: a cafe latte, a large Diet Mountain Dew, and an energy drink; all in a two-hour period before collapsing in class. [\[Reported by CNN News\]](#)

An 18 year old high school senior died in 2014 after consuming Hard Rhino Pure Caffeine powder purchased from Amazon, which he thought was a pre-workout supplement. The student mixed about a teaspoon of the powder into a beverage, which was the same amount of caffeine as about 25 cups of coffee. The overdose caused cardiac arrhythmia and a seizure. [\[Reported by CBS News\]](#)



Suicide Prevention: We All Have a Role to Play

According to researchers at the Blue Ridge Poison Center, the number of U.S. poison center calls about suspected **suicide poisonings among children and adolescents ages 10-19 increased by an alarming rate** during 2021. Suspected suicide attempts by poisoning among children ages 10-12 increased 73% as compared to 2019. Among adolescents ages 13-15, the rate of suspected suicide attempts by poisoning increased 48.8% during the same time frame.

The U.S. Centers for Disease Control and Prevention (CDC) reports that in 2021, **one person died by suicide every 11 minutes**. While anyone can be at risk, groups that are disproportionately affected include middle-aged white men, people living in rural areas, people working in agriculture or mining, members of the LGBTQ community, and U.S. war veterans. In fact a recent study found that more post-9/11 veterans have died by suicide than by combat.

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These are disturbing statistics. But there is hope. Suicide is preventable. Numerous community groups, schools, care providers, and organizations are using evidence-based programs to tackle the problem. (Check out the resources listed at the end of this article). **Here's more good news: there's a simple act that every single one of us can do to make a difference--safeguard the medicines in your home by properly securing and monitoring them.** Use a locked box or cabinet if possible. Nationally, poisoning is the third highest means of suicide, and drug overdoses are the biggest culprit. More than 12% of all calls to the Blue Ridge Poison Center in 2020 were about suspected poisoning suicides.



LOCK MEDS. LOCK GUNS. TALK SAFETY.

“The more time and space we can give a person with suicidal thoughts, the less likely they are to act on those feelings,” says Jordan Brooks, LPC, Regional Suicide Prevention Coordinator for Department of Behavioral Health and Developmental Services (DBHDS) Health Planning Region 1. A report from the Harvard School of Public Health shows that, contrary to popular belief, most suicide attempts are impulsive, with only hours or even minutes passing between the decision to harm oneself and the action. “If you can put distance between the lethal means and the person at risk for suicide,” adds Brooks, “you can save lives.”

Brooks is a co-leader of [Lock and Talk Virginia](#), an organization that encourages Virginians to practice safe and responsible care of lethal means by securing medications and firearms and to talk openly about mental health and suicide. If someone in your home is at risk of suicide, and you need a medication lock box or gun safety locks, Lock and Talk Virginia can help you get those items for free. Even if no one in your household is at risk for suicide, or you live alone, your medicines could still be a target for guests or visitors who may be at risk.

- If you have **expired or unused medications** in your home, get rid of them altogether. Don't keep leftover prescription medicine around “just in case.” If possible, take it to a [‘Drug Take Back’](#) location or event. If none are available, the U.S. Food and Drug Administration (FDA) recommends these steps for safely disposing of medicine:
- **Remove** from the bottle and mix with something unpleasant, like dirty cat litter.
- **Seal** in a plastic baggie, coffee can, or other container.

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Poison Trivia answer: No. Despite popular belief—and one particular episode of *Friends*—urine will not help relieve the pain of a jellyfish sting. Instead, rinse with ocean water or vinegar. For more details on dealing with jellyfish, see our [Summer 2022 issue](#).

- **Place** in the regular household trash.
- **Scratch** out any personal information on medicine bottles before tossing into the trash.

Note: the FDA recommends disposing of certain medicines by flushing if they pose a threat of serious harm or death when even small amounts are used inappropriately. This “Flush List” includes opioids, and can be found on the [FDA website](#):



September is National Suicide Prevention Month.

This is a time when healthcare providers, communities, families, and survivors unite to share resources and promote suicide prevention awareness. We all have a role to play. In 9 out of every 10 suicides, the person had a diagnosed mental health condition. Reduce the stigma—normalize talking about mental health and [suicide](#). Visit the [National Lifeline and Crisis website](#) for more ways to promote Suicide Prevention Month.

More resources are below. Help is only a call, a text, or a click away. All of the resources below offer FREE, CONFIDENTIAL, 24/7 help.

- If you or someone you know is thinking of suicide: Contact the **Suicide and Crisis Lifeline**: by calling or texting 9-8-8.
- There are special resources available just for **veterans in crisis** and their families. Call or text 988 and then press 1.
- If you suspect someone has swallowed or inhaled any drug or substance with the intent to harm themselves, call the **Blue Ridge Poison Center** right away at 1-800-222-1222. Call even if you aren't sure what happened, or if no symptoms are present. (Note: if a person is not breathing, having a seizure, or will not wake up, call 9-1-1).
- [Lock and Talk Virginia](#) offers free medication lock boxes, free gun locks, and much more. They also have a site dedicated to helping [schools prevent suicide](#).

The Blue Ridge Poison Center is affiliated with University of Virginia Health. Other funding sources include the Virginia Department of Health and HRSA. We are accredited by America's Poison Centers. Proudly serving the Commonwealth since 1978. [Join the mailing list](#) to receive this quarterly newsletter, or visit www.brpc.virginia.edu.

