

## Acta Medica Europa

## Myths about Energy Drinks

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Dear Editor,

Energy drinks have become ubiquitous, especially among teens and young adults. Packed with caffeine, sugar, and other additives, they promise a quick burst of energy and mental focus. However, these potent concoctions are shrouded in a cloud of misinformation and misconceptions. Let's debunk some of the most common myths surrounding energy drinks to ensure informed choices about their consumption (1-5).

Myth #1: Energy drinks are just a concentrated form of coffee.

While both contain caffeine, the comparison is misleading. A typical 12-ounce can of energy drink can have two to three times the caffeine content of a cup of coffee. Additionally, energy drinks often contain other stimulants like guarana and taurine, potentially amplifying the effects of caffeine and increasing the risk of adverse reactions.

Myth #2: Energy drinks improve athletic performance.

While the initial caffeine boost might feel like a performance enhancer, the truth is more nuanced. Studies show limited benefits for short-term bursts of activity but potential drawbacks for prolonged exercise due to dehydration and increased stress on the cardiovascular system.

Myth #3: Sugar-free energy drinks are healthy.

Replacing sugar with artificial sweeteners may reduce calorie intake, but it doesn't guarantee a health halo. These sweeteners can still affect insulin levels and disrupt gut bacteria, potentially contributing to metabolic issues in the long run.

Myth #4: Energy drinks are harmless for healthy individuals.

Energy drinks can pose significant risks even for healthy individuals. Overconsumption can lead to anxiety, insomnia, headaches, and even heart palpitations. Their diuretic effect can lead to dehydration, further exacerbating these symptoms.

Myth #5: They're a safe alternative to illegal drugs.

This misconception is particularly dangerous. Energy drinks can trigger similar dependence and withdrawal symptoms as some illegal drugs. Combining them with alcohol or other drugs can have dire consequences, potentiating their harmful effects (3-7).

Energy drinks are not a harmless source of energy or focus. Debunking these myths is crucial for promoting informed consumption and protecting vulnerable populations. Moderation is key, and alternative sources of energy, such as adequate sleep, proper hydration, and balanced meals, should be prioritized over these potent concoctions (3-5). Let's advocate for greater awareness about the potential risks of energy drinks. Healthcare professionals, educators, and policymakers can play a crucial role in educating the public and promoting responsible consumption practices. Together, we can ensure that people make informed choices about their health and well-being, leaving the myths about energy drinks behind.

## REFERENCES

- Caine JJ, Geracioti TD. Taurine, energy drinks, and neuroendocrine effects. Cleve Clin J Med. 2016;83(12):895-904. doi:10.3949/ccjm.83a.15050
- Wolk BJ, Ganetsky M, Babu KM. Toxicity of energy drinks. Curr Opin Pediatr. 2012;24(2):243-251. doi:10.1097/MOP.0b013e3283506827
- Curran CP, Marczinski CA. Taurine, caffeine, and energy drinks: Reviewing the risks to the adolescent brain. Birth Defects Res. 2017;109(20):1640-1648. doi:10.1002/bdr2.1177
- Nadeem IM, Shanmugaraj A, Sakha S, Horner NS, Ayeni OR, Khan M. Energy Drinks and Their Adverse Health Effects: A Systematic Review and Meta-analysis. Sports Health. 2021;13(3):265-277. doi:10.1177/1941738120949181
- Verster JC, Aufricht C, Alford C. Energy drinks mixed with alcohol: misconceptions, myths, and facts. Int J Gen Med. 2012;5:187-198. doi:10.2147/IJGM.S29313
- Bauer PR, Sander JW. The Use of Caffeine by People with Epilepsy: the Myths and the Evidence. Curr Neurol Neurosci Rep. 2019;19(6):32. Published 2019 May 14. doi:10.1007/s11910-019-0948-5
- Brouns F, Nieuwenhoven Mv, Jeukendrup A, Marken Lichtenbelt Wv. Functional foods and food supplements for athletes: from myths to benefit claims substantiation through the study of selected biomarkers. Br J Nutr. 2002;88 Suppl 2:S177-S186. doi:10.1079/BJN2002683

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