

HealthWAVES

The Aqua-Active Lifestyle

ENERGY DRINKS: WHAT'S THE BUZZ?

BY KATHLEEN WOOLF AND AMBER R. BROWN

Almost overnight, Americans have gone from relying on coffee, hot from the pot, to a surge in the use of “energy drinks.” These beverages have strong and aggressive names, such as Monster®, Red Bull®, Full Throttle®, AMP® or Rock Star®. What are these trendy beverages? What ingredients do they contain?

What are energy drinks?

Energy drinks are beverages that contain sugar, caffeine and other stimulants. They are marketed to teenagers and young adults as a quick way to boost mental energy and performance. Caffeine is the main ingredient in these popular beverages. The caffeine dose ranges from 80 milligrams (mg)—similar to a cup of coffee—to 300 mg.

Energy drinks often contain guarana, an herbal stimulant that enhances the effects of caffeine. Guarana comes from the seeds of a plant grown in Brazil. These seeds also contain three times the amount of caffeine as coffee beans. Because caffeine and guarana appear separately in the ingredient list, the amount of caffeine that guarana contributes to an energy drink does not have to be reported on the nutrition label. This practice can be very misleading to consumers trying to manage their caffeine intake.

Energy drinks may also contain ginseng, a popular Asian herb. Ginseng is marketed to increase mental awareness, create a feeling of well-being and improve exercise performance. Research does not consistently support these claims.

Some energy drinks contain taurine, a compound produced in the human body that has been marketed to alleviate muscle fatigue. Taurine occurs naturally in food, but the amount of

taurine in energy drinks is much higher than that found in food. Unfortunately, the safety of taurine in these higher doses has not been established.

Any side effects?

Millions of people consume moderate doses of caffeine safely on a daily basis. However, larger doses of caffeine and other stimulants may result in side effects, such as increased heart rate and blood pressure, irritability, anxiety, sleeplessness and dehydration.

Unfortunately, only limited research has examined the safety of the combination of ingredients found in energy drinks. Large amounts of caffeine in combination with other stimulants may cause your heart to go into overload—definitely not a good idea prior to training or competition!

Caffeine intoxication has also been reported when guarana was taken in combination with caffeine. Because of these potential side effects, several countries have banned the use of energy drinks.

A new disturbing trend is the consumption of energy drinks with alcohol. The combination of a stimulant (energy drink) plus a depressant (alcohol) can be very dangerous to the body.

Are they appropriate for exercise?

Energy drinks are not appropriate during physical activity. An athlete may experience dehydration due to the excessive amount of caffeine in the beverage. This is even more of a hazard when an athlete is losing fluids during physical activity.

Also, unbiased scientific research does not support the claims that the non-caffeine ingredients will increase

mental alertness or exercise performance. During competition, excess caffeine is defined as a monitored substance (World Anti-Doping Agency, 2008). The NCAA considers caffeine and guarana as banned substances when the concentration in the urine exceeds 15 micrograms per milliliter.

What are better choices for an athlete?

The next time you are tempted to grab an energy drink, do so with caution. Instead, rely on natural techniques to boost your energy stores.

Eat breakfast so you will have the fuel to begin each day. Prior to practice or competition, consume carbohydrates as a pre-event meal to top off your energy stores. Getting plenty of rest the night before a big event also ensures that your body has the ability to perform at its peak potential.

Well-trained, well-nourished, well-rested athletes have no need for a commercial energy drink—their energy comes from within! ♦

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