

Why boys choose to drink energy drinks

And why they probably shouldn't

BY D R . TOM KEENAN, CALGARY HERALD MARCH 3, 2011

Follow a group of high school students into a convenience store and chances are many will grab a coffee or a high-caffeine energy drink.

New research shows that the boys are most likely to do this, for some very interesting physical and psychological reasons.

Kathleen Miller of the University of Buffalo surveyed 795 undergraduate students and found that 39 per cent had consumed at least one caffeine-laden energy drink in the past month. Men reported considerably more frequent consumption of energy drinks than did women, she wrote in a 2008 article. She attributes this to a combination of conforming to masculine norms, jock identity and the male fondness for risk-taking behaviour.

Now, her colleague Jennifer Temple has probed deeper into the minds and bodies of teen energy drinkers, and pushed the age range down to 12 to 17. She reports that boys were more likely than girls to use energy drinks and they like them for getting a rush, more energy or improving athletic performance.

Exactly what did caffeine do to the bodies of the 26 boys and 26 girls in this study? As expected from research on adults, caffeine raised diastolic blood pressure and decreased heart rate.

The blood pressure effect was more pronounced in the boys, especially those who were habitual caffeine users. Writing in *Experimental and Clinical Psychopharmacology*, Temple concludes that these findings suggest that boys and girls differ in their responses to caffeine.

She also expresses surprise that boys who consume a lot of caffeine showed a stronger effect because it flies in the face of conventional wisdom about how our bodies respond to a drug. "We would have predicted that high consumers would have developed some tolerance to the effects of caffeine and would have reduced responses."

Asked in an e-mail interview to speculate on the reason for the gender difference, Temple says that fluctuations in estradiol in females may result in differences in subjective responses to caffeine.

So raging hormones, which teenagers have in abundance, could be the major factor, though the male-oriented marketing of energy drinks might also explain why boys guzzle Monster and Red Bull.

Temple suggests that parents, especially those of heavily caffeinated boys, should limit access to caffeine and talk to their kids about potential negative effects of caffeine. Bring up things like sleep disruption and the jitters. Temple quickly adds that she doesn't think caffeine is as dangerous as illicit



Energy drink Four Loko's first recipe has been blamed for countless U.S. college student hospitalizations

Photograph by: Paul J. Richards, AFP-Getty Images, Calgary Herald

drugs, alcohol or cigarette smoking, but -since those often have to be consumed in secret -caffeine is more insidious.

If energy drinks are bad, mixing them with alcohol is even worse. The stimulants in these drinks keep you awake and alert enough to consume dangerous levels of alcohol. A drink called Four Loko, with a mix of caffeine, alcohol, taurine and guarana, hit the U.S. market in 2005 and has been blamed for countless college student hospitalizations.

The U.S. Food and Drug Administration came down hard on caffeine/alcohol premixed beverages in November 2010 and a new version of Four Loko, minus the caffeine, taurine and guarana, has now hit the shelves.

Health Canada issued a news release in May 2010 reminding us that such drinks are banned in Canada and that taking an approved energy drink, such as you would find in convenience and grocery stores, adding alcohol and offering it for sale is not allowed.

Of course, it doesn't take a genius to pour some vodka and an energy drink into a glass. In Miller's study of college students, 26 per cent reported consuming energy mixed drinks (with alcohol) at least once, and about half of those did so more than once or twice.

TOM KEENAN IS A SCIENCE WRITER, PUBLIC SPEAKER AND PROFESSOR IN THE FACULTY OF ENVIRONMENTAL DESIGN AT THE UNIVERSITY OF CALGARY.

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