

“Caffeinating” children and youth

Although many of us regularly enjoy tea, coffee and other caffeinated beverages, most of us have enough common sense not to willingly allow children to consume 10 cans of cola in one sitting — the amount of caffeine in 500 mL of some energy drinks.¹ Owing to inadequate labelling requirements, a lack of awareness of caffeine’s harmful effects and marketing campaigns that appeal to children and youth, this is precisely what we are unwittingly allowing in Canada and elsewhere.

Energy drinks are very effective high-concentration caffeine delivery systems. These sugar-loaded syrups typically contain 80 to 140 mg of caffeine per 250 mL — the equivalent caffeine in one cup of coffee or two cans of cola. However, beverage companies are offering formulations with caffeine concentrations as high as 500 mg per can in US products such as Wired X505™ and Fixx™.

Caffeine can also be purchased in 100- and 200-mg tablets in Canada and the United States. However, even tablets with two and one-half to five times less caffeine have mandatory health warnings guarding against use in children and cautions to limit use because too much caffeine may cause nervousness, irritability, sleeplessness and, occasionally, rapid heart rate.²

Caffeine-loaded energy drinks have now crossed the line from beverages to drugs delivered as tasty syrups. Health Canada has taken steps to regulate many energy drinks as natural health products with warnings on labels. However, many energy drinks are still considered foods that only list ingredients. Neither natural health products nor foods list total caffeine content or easily understood equivalents in terms of cups of coffee because caffeine-containing herbal extracts are listed separately.

People who are inclined to downplay such concerns might argue that caffeine has been safely consumed in foods for centuries. Consumers of more traditional caffeinated beverages indicate that acute intoxication lasts only a few hours, with seemingly few serious short- or long-term health consequences. Moreover, popular coffee retailers sell products with large amounts of caffeine. For instance, a 16-oz “grande” coffee at Starbucks contains 330 mg of caffeine.

However, marketing of energy drinks is distinctly different from that of other highly caffeinated beverages. Energy drinks are often targeted toward children and youth through carefully designed advertising campaigns as well as sponsorship of events such as snowboarding and skateboarding competitions. Children and youth are notorious for making poor health choices. They can hardly be expected to make appropriate decisions about consuming energy drinks when information on caffeine concentration and appropriate safe amounts is not visible on these products.

Consumption habits are also worrisome. Adolescents and college students often mix energy drinks with alcohol,^{3,4} a potentially hazardous combination because the high levels of caffeine can mask the perception — but not the consequences — of acute alcohol intoxication.² In a survey, college students who mixed alcohol with energy drinks were three times more likely to leave a bar highly intoxicated and four times more likely to drive

while intoxicated than bar patrons who did not mix alcohol with energy drinks or drank them separately.⁵

In children, effects of high concentrations of caffeine should concern us. A study of 100 US adolescents aged 12 to 18 found that 73% consumed 100 mg or more of caffeine per day, with most consumption in the evening, the time of day most likely to negatively affect sleep.⁴ Poor sleep quality and quantity in adolescents has been associated with mood disorders, exacerbation of asthma, obesity, lower sense of well-being and poor school performance.

Given the potential for harm, regulatory authorities such as Health Canada should step in. Regulations could include government-mandated restrictions on labelling, sales and marketing, or self-imposed industry-wide standards with clear labelling accompanied by public education.

Many countries have either imposed or tried to impose strict regulations because of potential health risks of caffeine.² Until 2008, France did not even allow the sale of Red Bull™, and in Denmark, sale was prohibited as of 2009.²

At a minimum, all products with caffeine levels exceeding 100 mg should have labels and advertising that carry warnings comparable to those required for caffeine tablets. To minimize use by children, there should be no advertising targeting this vulnerable group. Finally, we should invest in public education focused on the health consequences of caffeine in children.

It is time for health authorities around the world to be awakened and alerted to concerns about energy drinks sold to children. Strict regulations are required if business practices and consumer trends are not curbed. Should our minister of health encounter obstacles because of an antiquated Food and Drug Act, she will have even greater cause to boost her energy toward drafting new legislation in this area.

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