

January 25, 2011

The Honourable Leona Aglukkaq, P.C., M.P.
Minister of Health, Government of Canada
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The Honourable Deb Matthews,
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The Honourable Margaret R. Best
Minister of Health Promotion and Sport
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Honourable Ministers:

On January 19, 2011, the Board of Health for the Peterborough County-City Health Unit received/reviewed a staff report on energy drinks. The attached report highlights general nutrition information about energy drinks that are commonly available throughout our community in corner stores, grocery stores, gas stations and bars. We know that these products, despite clear warnings on the label advising against the use by children, are marketed towards children and youth and their sales continue to grow across Canada.

Another concern is the mixing of alcohol with energy drinks and the availability of these pre-mixed products in LCBO outlets in Ontario. Research shows there are significant health risks associated with this practice including reduced perception of the influence of alcohol, inability to perform tasks that require alertness, increased consumption of alcohol, increased risk for injury, and sexual assault. These risks may all require medical attention.

To this end, the Peterborough County-City Health Unit requests that you consider the following:

1. That advertising and sale of energy drinks to children and youth be restricted; and,
2. Premixed alcohol and energy drinks not be sold in liquor outlets as follow-up from the Health Canada Media Advisory in March 2010 that stated "*An energy drink containing*

alcohol would be subject to different regulations under the Food and Drugs Act, and would be evaluated differently - as a food, and not as a natural health product...Health Canada will be following up with liquor boards and other relevant bodies to ensure that the regulations and their implications for energy drinks containing alcohol are appropriately understood... Health Canada continues to advise consumers not to mix energy drinks with alcohol”.

On behalf of the Peterborough County-City Health Unit and Peterborough County and City residents, we ask you to continue your work on moving this important issue forward.

Yours truly,

Original signed by

Andy Sharpe
Chair, Board of Health
for the Peterborough County-City Health Unit

Encl.

c. Ontario Boards of Health



Staff Report

Energy Drinks

Date:	January 19, 2011
To:	Board of Health
From:	Dr. Rosana Pellizzari, Medical Officer of Health
Original signed by _____ Rosana Pellizzari, M.D.	Original signed by _____ Larry Stinson, Acting Director, Public Health Programs

Purpose

This report provides the Board of Health with background information regarding energy drinks.

Decision History

This staff report on energy drinks was prepared based on a request of a Board of Health member at the November 2010 Board of Health Meeting.

Financial Implications and Impact

None.

Recommendations

That the Board of Health for the Peterborough County-City Health Unit:

1. Send a letter to Minister Leona Aglukkaq, Federal Minister of Health, Minister Margaret Best, Ontario Minister of Health Promotion and Sport, and Minister Deb Matthews, Ontario Minister of Health requesting that:
 - Advertising and sale of energy drinks to children and youth be restricted.
 - Pre-mixed alcohol and energy drinks not be sold in liquor outlets.

2. Direct staff to create a link to Health Canada's "Safe Use of Energy Drinks" on the Peterborough County-City Health Unit website. (<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/boissons-energ-drinks-eng.php>)

Background

The term energy drink refers to a unique category of beverages that claim to stimulate and energize the user. Energy drinks are commonly available in corner stores, grocery stores (including the check-out area), gas stations and bars, often displayed alongside soft drinks, juices and sports drinks. Some examples include:

- Red Bull Energy Drink®
- SoBe Adrenaline Rush®
- Rock Star Energy Drink®
- Hype Energy Drink®
- Red Dragon Energy Drink®
- YJ Stinger®

Many energy drink companies make claims that their drinks give the user energy to perform and help keep the user alert when tired. They often have large amounts of caffeine and combinations of herbal ingredients. Energy drinks can be expensive and can cost up to three times more than other less caffeinated drinks like soft drinks and coffee.

Energy drinks have normally been targeted at young men but are becoming more popular with the general population. According to a report from the Marin Institute (2007), teenagers and young adults are the core consumer group for energy drinks; thirty-one percent of 12 to 17 year olds and 34 percent of 18 to 24 year olds report regular consumption of energy drinks. Nonalcoholic energy drink producers promote youth consumption using "grassroots" level marketing strategies, as opposed to traditional channels (such as television, radio, magazine and outdoor advertising). Companies look for "one-on-one relationships" gained through events, extreme sports sponsorships, internet interactions, text messaging, and communication among users on internet sites such as Facebook.

The market for energy drinks in Canada is growing quickly. In 2006, the market was valued at \$287.2 million and is expected to reach \$375.2 million by 2011. New brands are being introduced all the time. In 2008, it was estimated that there were over 300 brands of energy drinks in North America.

In Canada, energy drinks are not regulated as a food product, so they are not required to have a Nutrition Facts table. Instead, energy drinks are considered supplements and are therefore reviewed under Natural Health Products (NHP) Regulations. Under the NHP Regulations, the label of an energy drink must list all ingredients, both medicinal and non-medicinal, and the recommended use of the product. Not all energy drinks currently sold in Canada have been

evaluated under the NHP Regulations. Only energy drinks with an 8-digit code with the letters “NPN” (Natural Health Product Number) on the can have been evaluated.

Certain warnings must also appear on the labels of energy drinks. These warnings state that energy drinks should not be:

- used by children;
- used by women who are pregnant or breastfeeding;
- mixed with alcohol; or,
- consumed at more than 500 mL/day.

Currently there are no regulations prohibiting the sale of energy drinks to children.

Health Canada is investigating some serious medical reactions linked with energy drinks including dizziness, nausea and vomiting, stomach pain, electrolyte imbalances and heart irregularities. These effects have been reported after too many energy drinks were consumed or when mixed with alcohol.

What is in Energy Drinks and Why?

Ingredients may be slightly different between brands, but most have the same two main ingredients: sugar and caffeine. Aside from the sugar-free versions, energy drinks have about the same amount of sugar as regular pop (i.e., approximately 26 grams in 240 mL) but they usually have more caffeine. For example, one 250 mL can of Red Bull® contains almost 7 teaspoons of sugar, 110 calories and 80 mg of caffeine.

Caffeine: Caffeine is a stimulant. When caffeine is added to products, such as cola, it must be listed in the ingredient list. Ingredients such as guarana and yerba mate, commonly found in energy drinks also contain caffeine. It is mandatory that these be listed as ingredients however, it is not currently mandatory that the amount of caffeine from these natural sources be listed on the label. Caffeine content of teas, coffee and cocoa beans, guarana and yerba mate plants all also vary by growing conditions, harvesting, plant genetics soil quality, serving size and preparation method, making accurate labelling difficult.

Most energy drinks have 80 mg caffeine per 250 mL can (though some have more). This is double the amount of caffeine found in soft drinks. The amount of caffeine in most energy drinks exceeds recommendations for children. Health Canada suggests no more than 45 mg/day for children 4-6 years, 62.5 mg/day for 7-9 years and 85 mg/day for children 10-12 years. Caffeine can cause nervousness, anxiety, jitteriness, stomach/intestinal upset, rapid heart rate and trouble sleeping in some individuals. Withdrawal symptoms can include headache, fatigue, irritability and poor concentration for those who consume caffeine regularly.

Children are more sensitive to caffeine than adults. They can become restless, irritable and have problems sleeping if they have too much caffeine. Drinking too much caffeine can cause

calcium to be lost from the body; therefore calcium is not available to build strong bones and teeth. Also, if energy drinks replace calcium-rich drinks, such as milk, growing bodies and bones suffer even more.

Energy drinks are consumed cold and can be easy for youth to consume quickly. The caffeine available in energy drinks is in a more purified form so the consumer often feels the “hit” sooner.

Sugar: Sugar provides energy in the form of calories. A small can (250 mL) is likely to have at least 100-130 calories. However, many energy drinks are sold in larger can sizes so contribute more unneeded, liquid calories to one’s diet.

Medicinal Herbs: Many energy drinks contain the herbs *Ginkgo biloba* and *ginseng*. There is no scientific evidence to support claims on energy drink labels that the herbs improve sports performance. Some herbs can interact with drugs/medications such as warfarin and affect blood clotting. People taking medication should discuss energy drink use with their physician.

Taurine: Taurine is an amino acid-like compound and is found in the diet in meat and dairy products. It is not an essential nutrient nor is it involved in protein synthesis. Some energy drinks claim that taurine makes you more alert but research is not conclusive. It has been estimated that the average diet contains 40-400 mg/day of taurine. Most energy drinks have 1 gram of taurine per 250 mL can, therefore consuming one or more energy drinks can far exceed the amount of taurine found in a typical diet. The safety of large doses of taurine, or its long term health effects, are not known.

Energy Drinks and Exercise

Energy drinks can dehydrate. The caffeine in energy drinks has a diuretic effect, which causes you to urinate more often and may cause your body to lose too much water. The high sugar content and carbonation of energy drinks make them harder to absorb and drink during exercise and can cause stomach upset. For this reason, energy drinks should not be used during or after exercise when hydration is critical. Water is the best choice to drink during most types of activity.

Alcohol and Energy Drinks

Despite the clear warning that alcohol should not be mixed with energy drinks, doing so has become a common trend, especially among young adults. Drinks featuring energy drinks mixed with alcohol are available at bars and pre-mixed alcoholic energy drinks are sold at Liquor Control Board of Ontario (LCBO) outlets (e.g., Rock Star® pre-mixed with vodka).

Research has determined that the ingestion of an energy drink with alcohol reduced the drinker’s perception of the influence of the alcohol, while the energy drink did not in fact significantly reduce the deficits caused by alcohol on objective motor coordination and visual reaction time (Ferreira, 2006). In other words, people who combine alcohol and energy drinks

are definitely drunk and their faculties are impaired, but they don't feel the effects of intoxication.

Thus, people may not realize their inability to perform tasks that require alertness, such as driving a car.

If drinkers don't feel the effects of the alcohol, the self-regulating mechanisms associated with being drunk fail to function. Indeed, the scientific literature suggests that individuals drinking such beverages may consume more alcohol per drinking occasion (Thombs, 2010), a situation that is particularly dangerous for inexperienced drinkers.

There is research suggesting that mixing alcohol with energy drinks is related to increased rates of injury. A study of 4,271 American college students (McCoy, 2007) found that, compared to students who drank alcohol by itself, those who drank it in combination with an energy drink were twice as likely to:

- hurt themselves or be injured;
- require medical attention;
- get into a vehicle with a drunk driver;
- assault someone sexually;
- be sexually abused.

Comments

The Ministry of Education's School Food and Beverage Policy, Policy/Program Memorandum 150 (2010), has classified energy drinks as a "not permitted for sale" beverage. As of September 2011, these beverages will no longer be allowed for sale in elementary or secondary schools.

Although not available at school, elementary and secondary school students will still have ample opportunity to purchase energy drinks at local convenience stores, gas stations and grocery stores.

Health Canada issued a media advisory in March of this year stating that it has not approved the sale of any pre-mixed alcoholic energy drinks for sale and that "An energy drink containing alcohol would be subject to different regulations under the Food and Drugs Act, and would be evaluated differently - as a food, and not as a natural health product...Health Canada will be following up with liquor boards and other relevant bodies to ensure that the regulations and their implications for energy drinks containing alcohol are appropriately understood... Health Canada continues to advise consumers not to mix energy drinks with alcohol." Meanwhile, a call to a Peterborough LCBO store confirmed that pre-mixed alcohol and energy drinks are still being sold to consumers. (December 22, 2010)

In December 2010, an Edmonton newspaper reported that the federal government is still waiting for two expert panel reports that will recommend new rules in regards to pre-mixed alcohol and energy drinks.

The first one focuses on the safety of energy drinks without alcohol. Those are considered to be natural health products and have different rules than food products. The second report looks at caffeine in all foods, including drinks that mix caffeine with alcohol. The results of both reports are expected to be released in the next few months (Cummings, 2010).

Calls to both the Canadian Food Inspection Agency and Health Canada could not confirm this information.

It remains a concern that alcoholic beverages are being mixed with energy drinks at licensed establishments and parties.

Conclusion

The labels of energy drinks state that these drinks should not be consumed by children or mixed with alcohol. However marketing and availability clearly targets young people. Mixing of energy drinks with alcohol is increasingly common and pre-mixed alcohol and energy drinks are being sold in Peterborough LCBO outlets. There are significant health risks associated with these practices.

Strategic Direction

Board of Health advocacy on the topic of energy drinks supports the 2008-2012 Strategic Directions, Build on Our Leadership Role and Continue to Meet Our Mandate.

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