

August 15, 2014

Toronto Board of Health  
10th floor, West Tower, City Hall  
100 Queen Street West  
Toronto, ON  
M5H 2N2

Dear Member of Toronto Board of Health:

On behalf of the non-alcoholic beverage industry in Canada, the Canadian Beverage Association (CBA) objects to the recently proposed recommendations regarding the sale of energy drinks at functions held on city property currently put forward in the City of Toronto Municipal Alcohol Policy.

This recommendation is ambiguous in nature as it is unclear exactly what the restriction is – can they be sold, but just not when mixed with alcohol? Or is there a complete ban on energy drink sales at events that serve alcohol?

We also challenge the development of a recommendation like this without any industry consultation. These recommendations will impact companies who not only have their head offices in the City of Toronto but hold events in the city that attract tourists and investments, and also employ, both directly and indirectly, thousands of employees in the Greater Toronto Area.

The CBA supports decisions based on solid research and facts and the balance of scientific evidence does not support a link between energy drinks contributing to the intoxicating effects of alcohol or that energy drinks counteract intoxication.<sup>1</sup> Health Canada has recognized that the evidence does not support a harmful toxicological interaction between energy drinks and alcohol. Please see the attached documents for more information.

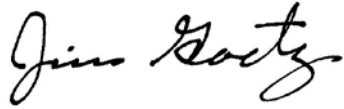
While energy drinks do contain caffeine, it is important to note that Health Canada regulates caffeine in energy drinks and an average energy drink has half the caffeine content of a similar size drip coffee. This means that a small 250 mL drip coffee has approximately 179 mg of caffeine while a similar sized energy drink contains 80 mg of caffeine.

We do agree that excessive drinking is a serious public health issue and should be addressed. One way to do this is to focus on educating young adults about the effects of consuming alcoholic beverages, not by focusing on non-alcoholic beverages. Focusing on energy drinks, rather than alcohol, does not speak to or address the serious problem of excessive alcohol consumption or underage drinking.

We ask that the City of Toronto defer a decision on this recommendation until the beverage sector has had an opportunity to meet with the Board of Health and have proper input into the decisions affecting their products, their business, and their investments in the city of Toronto.

The Canadian Beverage Association is the national trade association representing the broad spectrum of companies that manufacture and distribute the majority of non-alcoholic refreshment beverages consumed in Canada. Over 58,000 individuals are employed directly, indirectly and through induced jobs in the Canadian beverage industry.

Sincerely,

A handwritten signature in black ink that reads "Jim Goetz". The signature is written in a cursive, flowing style.

Jim Goetz  
President  
Canadian Beverage Association

CC: Dr. David McKeown, Medical Office of Health

Attachments: Background to Energy Drink Products  
CBA Energy Drink Brochure

---

<sup>i</sup> Committee on Toxicity Statement on the interaction of caffeine and alcohol and their combined effects on health and behaviour  
<http://cot.food.gov.uk/pdfs/cotlaystatementcaffalco201204.pdf>

## **Background to Energy Drink Products**

Energy Drink products are sold in more than 165 countries around the world, including all states of the European Union, Canada, Australia, New Zealand and the United Kingdom. Global acceptance of Energy Drink products is in part attributable to the fact that health authorities around the world have concluded that Energy Drink products are safe for consumption. While energy drinks are a growing category, they remain a niche product accounting for just under two (2) percent of the total U.S. non-alcoholic beverages market (Canadean Global Beverage Forecast, 2013).

## **Risk Assessments on Energy Drink Ingredients**

### **General Caffeine Safety**

Caffeine is one of the most researched ingredients in the food supply with a long history of safe use. The published literature demonstrates that for the general population of healthy adults, moderate caffeine consumption of 400 mg per day is not associated with general toxicity, cardiovascular effects, effects on bone status and calcium balance (with consumption of adequate calcium, changes in adult behavior, incidence of cancer or effects on male fertility (Nawrot et al., 2003). This is a view that is accepted by both Health Canada and the U.S. Food and Drug Administration (Food and Drug Administration, 2012).

### **Caffeine and Alcohol**

Energy drinks are non-alcoholic, water-based functional beverages developed to enhance performance. Despite their mainly functional purpose, some consumers do mix energy drinks with alcoholic beverages, as they also mix soft drinks like colas, tonic water, ginger ale, fruit juices, milk or even coffee with alcoholic beverages. The effects of alcohol and caffeine in humans is well known since research on these two substances has been performed for over 100 years. Also, possible interactions between alcohol and caffeine have been subject to scientific investigation for more than 50 years (Newman & Newman, 1956).

### **Risk Assessments of Caffeine and Alcohol**

Following concerns about possible interactions between the ingredients used in energy drinks and alcohol and assessing the scientific evidence both the Scientific Committee on Food (SCF) (2003) and the European Food Safety Authority (EFSA) (2009) have addressed the issue in their corresponding opinions. The SCF in 2003 concluded that *“there is no confirmation of a causal relationship between the reported effects of the co-consumption of alcohol and/or drugs and the consumption of energy drinks”* (SCF, 2003). In 2009 EFSA agreed with these considerations by the SCF (EFSA, 2009). Both the SCF and EFSA do not support the assumption of any combined effect or interaction between energy drinks and alcohol.

In line with the above, the European Commission, Health & Consumers Directorate-General - Standing Committee on the Food Chain and Animal Health – Section on General Food Law (the

“Standing Committee”) concluded that *“there is no conclusive scientific evidence of a proven link between a negative effect on health and the consumption of considerable quantities of energy drinks ... in combination with alcohol intake...”* (European Commission, 2010).

By adopting Regulation No. 1169/2011 of the European Parliament and of the European Council, dated 25 October 2011, which deals with the provision of food information to consumers, the European Parliament, the European Council as well as all 27 Member States of the European Union agreed, that there is no scientific basis justifying the addition of a mandatory advisory statement with regard to mixing energy drinks with alcohol. In particular the European Commission provided comments to the World Trade Organization regarding a proposal to add an advisory statement on mixing caffeine containing drinks with alcohol in Chile: *“As regards the warning message related to the mixture of caffeinated beverages with alcohol, this requirement has been considered and rejected by the Commission during the discussions of the above-mentioned Regulation, as there is no available scientific data and evidence which could justify such mandatory information.”* (European Commission, 2014).

Public discussion has raised concerns that mixing of energy drinks with alcohol could nevertheless result in negative effects. In particular there have been concerns that mixing energy drinks with alcohol could result in the subjective perception of being less intoxicated compared to consuming alcohol on its own. It is also feared that people would consume more alcohol when mixing alcohol with energy drinks compared to the consumption of alcoholic beverages on their own.

Recent research demonstrates that both assumptions cannot be scientifically substantiated. Studies show that the combination of alcohol with energy drinks in comparison to alcohol only does not reduce or alter the perception of alcohol induced intoxication, that is consumers feel no difference on the question of being drunk (Alford et al., 2012; Howland et al., 2011; Peacock et al., 2014; Ulbrich et al., 2013). This has been confirmed by a recently published systematic review and meta-analysis concluding that despite the large range of caffeine doses (46–383 mg) and alcohol levels 0.29–1.068 g/kg (resulting in blood alcohol concentration from 0.032 to 0.12%) investigated, caffeine had no effect on the judgment of subjective intoxication (Benson et al., 2014).

The other misconception that mixing energy drinks with alcohol increases overall alcohol consumption and/or irresponsible behaviour comes from surveys that describe a corresponding correlation. But just because two things occur together does not mean that one caused the other (Verster & Alford, 2011). In fact, most recent research found that personal characteristics like maladaptive motivational structure and novelty seeking predicted participants' alcohol-related problems but certainly not the combined consumption with energy drinks (Hosier & Cox, 2011).

Finally, studies show that consumers actually do not consume more alcohol or experience more negative alcohol-related consequences when combining energy drinks with alcohol compared to drinking alcohol on its own (de Haan et al, 2012; Verster et al., 2014; Penning et al., 2011; Woolsey et al., 2010).

The Energy Drinks Symposium in Vienna, Austria in October 2010 also looked in the issue of the possible masking effects of energy drinks and alcohol and concluded in its Proceedings that *"the data presented show that the combination of alcohol and energy drinks does not alter or reduce the perception of alcohol induced intoxication and impairment when compared to alcohol alone. In other words, there was no evidence that energy drinks masked the subjective effects of alcohol intoxication. Excessive consumption of alcohol can have adverse effects on human health and behavior. These findings lend support to the conclusion that the negative consequences of alcoholic drink consumption are due to the alcohol, and not a result of the mixture, be it with cola, orange juice, tonic or whatever else is mixed with alcohol"* (Alford et al., 2011).

All the above is confirmed by a comprehensive scientific review article where Verster and colleagues (2012) conclude that there is no consistent evidence that energy drinks alter the perceived level of intoxication of people who mix energy drinks with alcohol and that there is no evidence that co-consumption of energy drinks causes increased alcohol consumption.

In 2013, the UK Committee of Toxicity (COT), one of the leading global authorities, has published after a two-year scientific review period its final statement on the interaction of caffeine and alcohol, and their combined effects on health and behavior. Overall, the COT concludes that the current balance of evidence does not support a harmful toxicological or behavioral interaction between caffeine and alcohol (UK COT, Dec 2012).

In summary, recent academic research and authoritative evaluation show that the mixing of energy drinks with alcohol does not pose any additional risks compared with drinking alcohol on its own.

## **Conclusion**

The use of caffeine from various sources is supported by a long history of safe use and by studies regarding its benefits and safety. The available database supporting this conclusion is substantial. In addition, the safety of caffeine has been evaluated by Health Authorities and international organizations world-wide.

The current balance of evidence demonstrates that for the general population of healthy adults, moderate caffeine consumption (from any source) of 400 mg per day is not associated with general toxicity, cardiovascular effects, effects on bone status and calcium balance (with consumption of adequate calcium, changes in adult behavior, incidence of cancer or effects on male fertility. The maximum adult caffeine dose (400 mg/d) may not be appropriate for light weight adolescents; however, heavier adolescents may be able to consume adult doses of caffeine without suffering adverse effects. Caffeine safety in youth and adolescents should therefore be approached as a function of body weight, not age.

Despite the potential overstep by the committee, the assessment of caffeine safety in combination with other ingredients has been thoroughly assessed by risk assessment bodies around the world confirming no need for further assessment on possible interactions. Recent

academic research and authoritative evaluation also show that the mixing of energy drinks with alcohol does not pose any additional risks compared with drinking alcohol on its own.

## Are Energy Drinks and Sports Drinks the Same Thing?

As with any product it is important to read the label and understand a product's purpose and correct usage.

Sports drinks are beverages that are specifically formulated to re-hydrate the body and replenish other nutrients lost during exercise. Energy drinks are intended to supply mental and physical stimulation for a short period of time.

There are some new hybrid energy drinks on the market that contain both caffeine and electrolytes and have been approved for use in rehydration.

Adequate fluid intake is critical to support physical performance.

## Are Energy Drinks and Energy Shots the Same Thing?

Energy drinks are not the same as energy shots. Energy shots generally contain a higher concentration of caffeine by volume and are sold in smaller containers.

Health Canada has determined that energy drinks are beverages and accordingly has transitioned them from Natural Health Products to foods and limited the amount of caffeine found in them.

Because of their higher caffeine concentration, Health Canada has determined that energy shots will continue to be classified and regulated as Natural Health Products.

## How are Energy Drinks Assessed, Licensed and Marketed in Canada?

In 2011, Health Canada announced that they considered energy drinks to be beverages and that they should be classified and regulated as food products. Health Canada therefore began the process of transitioning energy drinks from Natural Health Products to foods and this transition is now complete. Energy drinks are now regulated under the *Food and Drug Regulations*.

The Association members' marketing practices and promotional activities for energy drinks are consistent with the Food and Drugs Act. In addition, members follow the Association's Code regarding the responsible marketing of energy drinks. The Energy Drinks Marketing Code can be found at [www.canadianbeverage.ca](http://www.canadianbeverage.ca).

## The Caffeine Conversation

The Canadian Beverage Association and its members encourage Canadians to become better educated on all sources of caffeine and to be aware of the levels of caffeine in the products they are consuming. Sources of caffeine include coffee, specialty coffee, tea, chocolate, other caffeinated soft drinks, energy drinks, over-the-counter medications and more.

## Where can I get more information?

Health Canada maintains a variety of fact sheets for consumers on energy drinks, caffeine and other important health related information:

**Caffeine in Food:** <http://www.hc-sc.gc.ca/fn-an/securit/addit/caf/food-caf-aliments-eng.php>

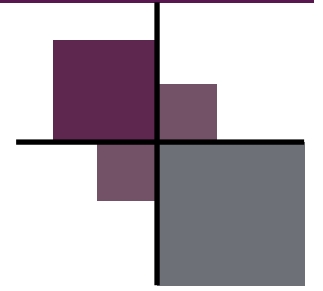
**Information for Parents on Caffeine in Energy Drinks:** [http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/\\_2011/2011-132bk-eng.php](http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/_2011/2011-132bk-eng.php)

**Energy Drinks: An Assessment of the Potential Health Risks in the Canadian Context:** [http://cdn.intechopen.com/pdfs/45380/InTech-Energy\\_drinks\\_an\\_assessment\\_of\\_the\\_potential\\_health\\_risks\\_in\\_the\\_canadian\\_context.pdf](http://cdn.intechopen.com/pdfs/45380/InTech-Energy_drinks_an_assessment_of_the_potential_health_risks_in_the_canadian_context.pdf)

**Canadian Beverage Association:** [www.canadianbeverage.ca](http://www.canadianbeverage.ca)

The Canadian Beverage Association and its members are proud to provide Canadians with a wide variety of beverages including soft drinks, sports drinks, juices, bottled waters and energy drinks. Energy drinks are a unique product offering in Canada and it is important that they are used as directed.

1. Category Specific Guidance for Temporary Marketing Authorization - Caffeinated Energy Drinks <http://www.hc-sc.gc.ca/fn-an/legislation/guide-ld/guidance-caf-drink-boiss-tma-amt-eng.php#a66>
2. Joel Rotstein, Jennifer Barber, Carl Strowbridge, Stephen Hayward, Rong Huang and Samuel Benrejeb Godefroy (2013). Energy Drinks: An Assessment of the Potential Health Risks in the Canadian Context, International Food Risk Analysis Journal, Samuel Godefroy, Paul Brent, Sebastien La Vieille (Ed.), ISBN: 1848-2368, InTech, DOI: 10.5772/56723. Available from: [http://www.intechopen.com/journals/international\\_food\\_risk\\_analysis\\_journal/energy-drinks-an-assessment-of-the-potential-health-risks-in-the-canadian-context](http://www.intechopen.com/journals/international_food_risk_analysis_journal/energy-drinks-an-assessment-of-the-potential-health-risks-in-the-canadian-context)
3. Caffeine In Foods, <http://www.hc-sc.gc.ca/fn-an/securit/addit/caf/food-caf-aliments-eng.php>
4. Committee on Toxicity Statement on the interaction of caffeine and alcohol and their combined effects on health and behaviour <http://cot.food.gov.uk/pdfs/cotlaystatementcaffalco201204.pdf>



# Energy Drinks in Canada

## Know the Facts



20 Bay Street  
Toronto, Ontario M5J 2N8  
[www.canadianbeverage.ca](http://www.canadianbeverage.ca)

## What are Energy Drinks?

Energy drinks are functional beverages intended to supply mental and physical stimulation for a short period of time. They contain caffeine, usually in combination with amino acids like Taurine or D-glucuronolactone, vitamins and carbohydrates.

While energy drinks are available in a wide range of flavours, formulations and formats in Canada, they generally share the following attributes:<sup>1</sup>

- contain caffeine,
- are intended to supply temporary physical and/or mental stimulation restoring alertness and wakefulness when fatigued or drowsy,
- were initially regulated and sold as Natural Health products (NHPs) in Canada but are now classified and regulated as conventional food products under the *Food and Drugs Act* and *Food and Drug Regulations*.

## What Information Can be Found on an Energy Drink Label?

Energy drink labels contain:<sup>1</sup>

- a declaration of the total caffeine content from all sources,
- a Nutrition Facts panel showing details on the amount of calories and other nutrients in the product,
- a declaration that energy drinks are not recommended for children, pregnant or breastfeeding women, or people who are sensitive to caffeine, and that energy drinks should not be mixed with alcohol,
- a “High caffeine content” statement,
- a “maximum number of [container(s)/ servings] per day” usage statement,
- any applicable allergen labelling.

## Why Did Health Canada Move Energy Drinks from Natural Health Products to Foods?

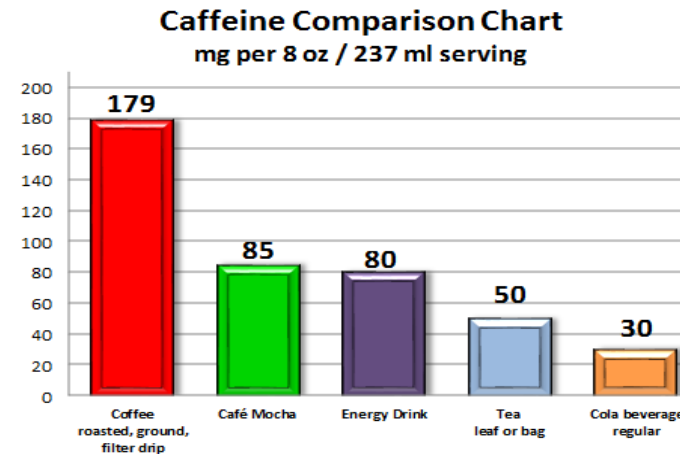
Health Canada announced in October 2011 that they were transitioning energy drinks from Natural Health Products to the Foods category. This change benefits Canadians by providing consistent and clear labelling similar to what they are accustomed to seeing on all other food and beverage packaging. It also helps Canadians make fully informed decisions when purchasing energy drinks.

Health Canada determined that caffeinated energy drinks fit the definition of a food, based on public perception and history of use, product representation to consumers and product format, in accordance with its guidance document on *Classification of Products at the Food-Natural Health Product Interface: Products in Food Format*.

## How Much Caffeine is in an Energy Drink?

Health Canada has capped the amount of caffeine, from all sources, allowed in an energy drink at 400 mg per litre. This means that a small single serve energy drink (250 ml or less) will have approximately 80 – 100 mg of caffeine and larger single serve cans are capped at 180 mg of caffeine.<sup>1</sup>

Single serve energy drinks represent the vast majority of sales in the energy drinks category in Canada.



Compiled using information from the following databases: <http://www.hc-sc.gc.ca/fnan/securit/addit/caf/food-caf-aliments-eng.php>  
Starbucks' <http://globalassets.starbucks.com/assets/7cd1d989cd0c4d4ba75b22d53f7af8bc.pdf>

## How Many Energy Drinks Can I Consume in a Day?

It is very important to read the product label to understand the recommended maximum daily usage as container size and ingredients vary. The total caffeine content of energy drinks continues to be identified on the label so Canadians can determine how the beverage fits within their overall daily caffeine intake.

For the general population of healthy adults, Health Canada advises a daily caffeine intake of no more than 400 mg per day.<sup>3</sup> Under the new Foods category requirements for energy drinks, single serve containers are limited to 180 mg.

Consumers should also be aware of their caffeine intakes from other sources (coffee, specialty coffee, tea, chocolate, other caffeinated soft drinks, over-the-counter medications, etc.) and adjust their intake accordingly.

## Are Energy Drinks Right for Me?

Energy drinks are formulated for people who are seeking a beverage that provides additional mental and physical stimulation for short periods of time. Like other caffeinated products, energy drinks are not recommended for children, pregnant or breastfeeding women, or people who are sensitive to caffeine. This information is reflected on the label.

## Are Energy Drinks Safe?

Energy drinks, which are functional beverages, are sold in more than 160 countries around the world and are considered safe by the world's leading health authorities, including Health Canada, Food Standards Australia New Zealand (FSANZ), the US Food & Drug Administration (USFDA) and the European Food Safety Authority (EFSA).

Health Canada has used a science- and fact-based approach for the transition of energy drinks from the Natural Health Product category to the Foods category. They have deemed energy drinks safe for consumption.

A recent energy drink risk assessment conducted by Health Canada concluded that for adults "...two servings of a typical energy drink per day would not be expected to pose a health risk for the general adult population." For teens 12-18 years of age the assessment also concluded "The caffeine content of one or two servings of a typical energy drink (80mg caffeine/serving) would be unlikely to pose an acute health hazard."<sup>2</sup>

The daily recommended caffeine intake levels set out by Health Canada for healthy adults is 400 mg of caffeine from all sources and, for adolescents, Health Canada recommends this should not exceed 2.5 mgs for every kg of body weight.<sup>3</sup>

## Can I Mix Energy Drinks with Alcohol?

Energy drink labels have a statement indicating that they are not recommended to be mixed with alcohol.

While the balance of evidence does not support a link between energy drinks contributing to the intoxicating effects of alcohol or that energy drinks counteract intoxication,<sup>4</sup> the Canadian Beverage Association and its members do not promote mixing energy drinks with alcohol.