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You Are What You Drink—a Rockst*r or a Monster?: An Enviga- rating Regulatory Question

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ABSTRACT

This paper briefly examines the regulation of caffeine in energy drinks. The FDA does not have specific regulations pertaining to the use of caffeine in energy drinks. Caffeine is generally safe, but may pose dangerous health risks to children, pregnant women, and people with caffeine sensitivities. I suggest that the Food and Drug Administration require energy drink companies to list the amount of caffeine on the product labels of energy drinks to facilitate informed product comparison.

INTRODUCTION

To caffeinate or to hibernate? The impending doom of “crunch time” before finals forces this choice on many law students. The fear of another dreadful “case of the Mondays”¹ drops this loaded decision on many nine-to-fivers. The draining hours of strength and endurance training thrusts this dilemma on many a teenage and adult athletes. Often, when my eyes want most to close and my body wants most to repose, I ignore them in favor of a sleep-defeating cup of coffee. When I develop a resistance to coffee, I turn to a Rockstar or a Monster energy drink; I choose an energy drink so that I may feel more like a rockstar. But, what if I unknowingly choose poorly, making myself feel more like a monster? I have felt like both a rockstar and a monster after consuming energy drinks. For a while, my energy drink of choice was Enviga. It tasted great and drinking only one can made me feel sufficiently energized. Shortly after I fell in love with Enviga, I stopped finding it in the school cafeteria and in my local grocery store. During a recent “crunch time,” I desperately needed caffeine to stay awake another twenty-four hours. I couldn’t rely on Enviga, so I turned to Monster. I drank one can, but did not feel as alert as I felt after drinking one can of Enviga, so I drank a Rockstar. Hours later, feeling like I had to push sleep off longer than I originally thought, I drank some coffee, followed by a 5-hour energy shot and some more coffee. By the end of my energy drink marathon, I was afraid to go to sleep; something was not right. I had overdosed on caffeine; or had I? The truth is I had no way of knowing because I did not know how much caffeine was in each of the energy drinks I had consumed.

¹ OFFICE SPACE (Twentieth Century Fox Film Corporation 1999).

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We are living in an energy crisis. People want endless energy, but not at the expense of feeling like a monster. In order for people to make informed choices about the type and amount of energy drinks they consume, they need to know how much caffeine is in the products they are comparing. This paper examines the regulation of energy drinks, and recommends that the Food and Drug Administration (FDA) require listing caffeine amounts and health warnings on energy drink labels to better inform the consumer and to prevent a loss of energy from becoming a loss of health.

THE ENERGY DRINK MARKET

Energy drinks have been on the market for at least forty years.² There are thousands of energy drinks on the market. The U.S. market for energy drinks in 2006 was approximately \$5.4 billion,³ and sales are expected to reach over \$9 billion by 2011.⁴ Red Bull alone sold 3.5 billion cans in 2007.⁵ In fact, annual per capita consumption of energy drinks in North America was

² Jeff Penalty, *A Brief History of Energy Drinks*, SWINDLE MAGAZINE, Issue 06, available at <http://swindlemagazine.com/issue06/a-brief-history-of-energy-drinks/> (“It all started in Japan, when Taisho Pharmaceuticals released a drink called Lipovitan-D in 1962. It contained a mix of B1, B2, and B6 vitamins, along with niacin and taurine.... [Energy drinks] soon grew in popularity in Asia and, in 1987, an Austrian named Dietrich Mateschitz took the concept, added caffeine and sugar, and formulated Red Bull, which quickly became popular in Europe.”).

³ Elizabeth Weise, *Petition Calls for FDA to Regulate Energy Drinks*, USA TODAY, Oct. 22, 2008, available at http://www.usatoday.com/news/health/2008-10-21-energy-drinks_N.htm.

⁴ THE FOOD INSTITUTE, THE FOOD INSTITUTE REPORT, ENERGY DRINK MARKET SPEEDS TO SALES (2008), 2008 WLNR 25455109; *Do Some Homework Before Making Energy Drinks Part of a Study Routine*, MEDICAL NEWS TODAY, July 30, 2009,

<http://www.medicalnewstoday.com/articles/159345.php> (quoting Dr. Steven Chang of RightHealth) (“[T]he market for these beverages is upwards of \$4 billion in sales.”).

⁵ Eric Pfanner, *Red Bull Storms Into France*, NY TIMES, June 8, 2008.

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about 5 liters in 2008, up from 0.5 liter in 2005.⁶ The global presence of energy drinks and the variety of energy drinks produced likely contributes to the growth in the energy drink market. Rockstar has about 13 different products⁷ and is available in: the United States, Canada, Australia, New Zealand, Japan, Germany, Switzerland, Finland, Spain, The Netherlands, and throughout the United Kingdom.⁸

WHO'S IN CHARGE?

Neither the FDA nor the United States Department of Agriculture (USDA) recognizes the term “energy drink.”⁹ Companies in the beverage industry created the term, which “refers to beverages that contain caffeine in combination with other ingredients such as taurine, guarana, and B vitamins, and that claims to provide its consumers with extra energy.”¹⁰ In 1959, the FDA designated caffeine as “generally recognized as safe” (GRAS), but only in soft-drinks up to 200

⁶ Daniel Palmer, *Energy Drinks Still Buzzing*, AUSTRALIAN FOOD NEWS, Jan. 28, 2009, <http://www.ausfoodnews.com.au/2009/01/28/energy-drinks-still-buzzing.html>; see Elizabeth Weise, *More Regulation of Energy-Drink Industry Sought*, USA TODAY, Oct. 22, 2008, available at <http://www.azcentral.com/news/articles/2008/10/22/20081022energydrinks1022.html> (noting that the U.S. consumed about 290 million gallons of energy drinks in 2007); Chad J. Reissig et al., *Caffeinated Energy Drinks—A Growing Problem*, 99 *Drug & Alcohol Dependence* 1, 2–3 (2009).

⁷ Rockstar Energy Drink Frequently Asked Questions, <http://www.rockstar69.com/productFAQ.php> (last visited Apr. 4, 2010). Monster offers 8 products. Monster Energy Drink Products, <http://www.monsterenergy.com/web/products> (last visited Apr. 4, 2010).

⁸ Rockstar Energy Drink: Company, <http://www.rockstar69.com/company.php> (last visited Apr. 4, 2010).

⁹ KARRIE HENEMAN & SHERI ZIDENBERG-CHERR, UNIVERSITY OF CALIFORNIA DAVIS, NUTRITION AND HEALTH INFO-SHEET FOR HEALTH PROFESSIONALS 1 (2007), nutrition.ucdavis.edu/content/infosheets/EnergyDrinks.pdf.

¹⁰ *Id.*

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parts per million:¹¹ “Caffeine. (a) Product. Caffeine. (b) Tolerance. 0.02 percent. (c) Limitations, restrictions, or explanation. This substance is generally recognized as safe when used in cola-type beverages in accordance with good manufacturing practice.”¹² The FDA once considered removing caffeine’s GRAS status.¹³ The Select Committee on GRAS Substances Review reviewed caffeine’s GRAS status in the 1970s. The review was concerned with “caffeine as commercially added to food commodities[, of which] [c]ola beverages comprise the largest and only significant source of caffeine....”¹⁴ The date of the review is 1978 (but updated in 1996), years before products like Monster and Rockstar came on the market. The report concludes:

A. While no evidence in the available information on caffeine demonstrates [sic] a hazard to the public when it is used in cola type beverages at levels that are now current and in the manner now practiced, uncertainties exist requiring that additional studies be conducted. B. It is inappropriate to include caffeine among the substances generally recognized as safe (GRAS).¹⁵

¹¹ FDA, *Why Isn’t the Amount of Caffeine a Product Contains Required on a Food Label?*, <http://www.fda.gov/AboutFDA/Basics/ucm194317.htm> (last visited Apr. 4, 2010); Sean Wajert, *Group Demands Regulation of Energy Drinks*, MASS TORT DEFENSE, Oct. 24, 2008, <http://www.masstortdefense.com/2008/10/articles/group-demands-regulation-of-energy-drinks/>; see Peter BARTON HUTT ET AL., *FOOD AND DRUG LAW* 417 (3rd ed., Foundation Press 2007) (1980).

¹² 21 C.F.R. § 182.1180 (2010).

¹³ Soda Water; Amendment to Standard, 45 Fed. Reg. 69816 (proposed Oct. 21, 1980) (to be codified at 21 C.F.R. pt. 165).

¹⁴ FDA, *DATABASE OF SELECT COMMITTEE ON GRAS SUBSTANCES (SCOGS) REVIEW: CAFFEINE* (1978),

<http://www.accessdata.fda.gov/scripts/fcn/fcnDetailNavigation.cfm?rpt=scogsListing&id=42> [hereinafter *SCOGS REVIEW: CAFFEINE*].

¹⁵ *Id.*

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The proposal to revoke caffeine’s GRAS status was eventually dropped when a district court dismissed a consumer group’s suit to ban caffeine immediately.¹⁶

Currently, the FDA does not regulate the caffeine content in energy drinks.¹⁷ The amount of caffeine a food product contains is not required on a food label, because caffeine is not a nutrient. It must be listed on the label as an ingredient if it is added to a food, but not the actual amount added.¹⁸ The FDA does, however, regulate “over-the-counter stimulants in which caffeine is the active ingredient.”¹⁹ These products are regulated as drugs,²⁰ unlike food products.²¹ When caffeine is added to soft drinks, the FDA “does not regulate the product as a drug even if the manufacturer promotes the food’s high level of caffeine and its ‘energizing’ qualities.”²²

¹⁶ See HUTT ET AL., *supra* note 11, at 417, 420 (citing *Federation of Homemakers, Inc. v. Harris*, Food Drug Cosm. L. Rep. (CCH) ¶38,100 (D.D.C. 1981)).

¹⁷ Judy Foreman, *Are “Energy Drinks” Bad for You?*, THE BOSTON GLOBE, Jan. 29, 2007, http://www.boston.com/yourlife/health/fitness/articles/2007/01/29/are_energy_drinks_bad_for_you/.

¹⁸ FDA, *Why Isn’t the Amount of Caffeine a Product Contains Required on a Food Label?*, <http://www.fda.gov/AboutFDA/Basics/ucm194317.htm> (last visited Apr. 4, 2010).

¹⁹ HUTT ET AL., *supra* note 11, at 34.

²⁰ 21 U.S.C. § 321(g)(1) (2010) (“The term ‘drug’ means (A) articles recognized in the official United States Pharmacopœia, official Homœopathic Pharmacopœia of the United States, or official National Formulary, or any supplement to any of them; and (B) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (C) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (D) articles intended for use as a component of any article specified in clause (A), (B), or (C). A food or dietary supplement for which a claim, ... is made in accordance with the requirements of section 343(r) of this title is not a drug solely because the label or the labeling contains such a claim. A food, dietary ingredient, or dietary supplement for which a truthful and not misleading statement is made in accordance with section 343(r)(6) of this title is not a drug under clause (C) solely because the label or the labeling contains such a statement.”).

²¹ 21 U.S.C. § 321(f) (2010) (“The term ‘food’ means (1) articles used for food or drink for man or other animals, (2) chewing gum, and (3) articles used for components of any such article.”).

²² HUTT ET AL., *supra* note 11, at 34 (“Apparently, in FDA’s view, such products fall within the food exception to the structure/function drug definition in section 201(g)(1)(C).”).

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The FDA also regulates dietary supplements.²³ Energy drinks and energy shots, like 5-hour energy, are regulated by the FDA as dietary supplements and must comply with the Dietary Supplement Health and Education Act of 1994 (DSHEA).²⁴ DSHEA defines both "dietary ingredient" and "new dietary ingredient" as components of dietary supplements.²⁵ FDA regulations require that certain information appear on dietary supplement labels.²⁶ Information that must be on a dietary supplement label²⁷ includes: a descriptive name of the product stating that it is a "supplement"; the name and place of business of the manufacturer, packer, or

²³ 21 U.S.C. § 321(ff) (2010) ("The 'dietary supplement' (1) means a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following dietary ingredients: (A) a vitamin; (B) a mineral; (C) an herb or other botanical; (D) an amino acid; (E) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (F) a concentrate, metabolite, constituent, extract, or combination of any ingredient described in clause (A), (B), (C), (D), or (E)...").

²⁴ 5-Hour Energy Shots—Frequently Asked Questions, <http://www.5hourenergy.com/QandA.asp> (last visited Apr. 4, 2010).

²⁵ In order for an ingredient of a dietary supplement to be a "dietary ingredient," it must be one or any combination of the following substances: "a vitamin, a mineral, an herb or other botanical, an amino acid, a dietary substance for use by man to supplement the diet by increasing the total dietary intake (e.g., enzymes or tissues from organs or glands), or a concentrate, metabolite, constituent or extract." FDA, Overview of Dietary Supplements, <http://www.fda.gov/Food/DietarySupplements/ConsumerInformation/ucm110417.htm#what> (last visited Apr. 4, 2010) [hereinafter Overview of Dietary Supplements].

²⁶ HUTT ET AL., *supra* note 11, at 267 ("A product may be represented as either a dietary supplement or a conventional food depending on the labeling. A dietary supplement must be designated as such on the principal display panel and bear a Supplement Facts box. A conventional food bears a Nutrition Facts box."). The FDA has authority to regulate labeling for food, while the Federal Trade Commission (FTC) retains authority to regulate advertising. *Id.* at 98. The FTC prohibits food advertisement, other than labeling, which is "misleading in a material respect." FTC, Enforcement Policy Statement on Food Advertising (1994), <http://www.ftc.gov/bcp/policystmt/ad-food.shtm> (citing 15 U.S.C. §§ 45, 52, 55 (1980)).

²⁷ 21 U.S.C. § 321(k) ("The term 'label' means a display of written, printed, or graphic matter upon the immediate container of any article; and a requirement made by or under authority of this chapter that any word, statement, or other information appear on the label shall not be considered to be complied with unless such word, statement, or other information also appears on the outside container or wrapper, if any there be, of the retail package of such article, or is easily legible through the outside container or wrapper."); 21 U.S.C. § 321(m) ("The term 'labeling' means all labels and other written, printed, or graphic matter (1) upon any article or any of its containers or wrappers, or (2) accompanying such article.").

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distributor; a complete list of ingredients; and the net contents of the product. In addition, each dietary supplement (except for some small volume products or those produced by eligible small businesses) must have nutrition labeling in the form of a "Supplement Facts" panel. This label must identify each dietary ingredient contained in the product.²⁸ DSHEA also requires the dietary supplement manufacturer to bear responsibility “for ensuring that a supplement is safe before it is marketed....”²⁹ Other than the manufacturer's responsibility to ensure safety, there are no rules that limit a serving size or the amount of a nutrient in any form of dietary supplements. This decision is made by the manufacturer and does not require FDA review or approval.³⁰ DSHA effectively creates a loophole so people can reclassify foods or drugs as dietary supplements to escape regulations.

ENVIGA PROBLEM

The FDA labeling regulations appeared to be at the root of my initial discouragement with the disappearance of Enviga. On February 1, 2007, the Center for Science in the Public Interest (CSPI)³¹ sued Coca-Cola and Nestlé for misbranding and false advertising.³² In a

²⁸ Overview of Dietary Supplements, *supra* note 25.

²⁹ *Aaronson v. Vital Pharms., Inc.*, 2010 U.S. Dist. LEXIS 14160 (noting that the FDA is also responsible for taking action against an unsafe supplement after it reaches the market); Dietary Supplement Health and Education Act of 1994, Pub. L. No. 103-417, 108 Stat. 4325 (1994); Overview of Dietary Supplements, *supra* note 25.

³⁰ Overview of Dietary Supplements, *supra* note 25.

³¹ Through education and advocacy, CSPI seeks to “[fight] for government policies and corporate practices that promote healthy diets, prevent deceptive marketing practices, and ensure that science is used to promote the public welfare.” About CSPI, <http://www.cspinet.org/about/index.html> (last visited Apr. 4, 2010).

³² Center for Science in the Public Interest, Watchdog Group Sues Coke, Nestlé For Bogus “Enviga” Claims, Feb. 1, 2007, <http://www.cspinet.org/new/200702011.html> [hereinafter Bogus Enviga Claims]; Sheila Marikar, *Drink Enviga, Burn Calories, Lose Weight? Not So Fast*, ABC

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warning letter to Coca-Cola and Nestlé, CSPI warns the companies that “Enviga is ‘misbranded’ in violation of both the Federal Food, Drug, and Cosmetic Act [FD&C Act], and state food and drug laws....”³³ The FD&C Act describes the process for determining whether labeling or advertising is misleading:

If an article is alleged to be misbranded because the labeling or advertising is misleading, then in determining whether the labeling or advertising is misleading there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, or any combination thereof, but also the extent to which the labeling or advertising fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the article to which the labeling or advertising relates under the conditions of use prescribed in the labeling or advertising thereof or under such conditions of use as are customary or usual.³⁴

Enviga “boasted” negative calories from the combination of caffeine and epigallocatechin gallate (EGCG), an antioxidant found in green tea.³⁵ As of the date of the CSPI warning letter, the Enviga website claimed, ““Enviga results in negative calories, because you burn more calories

NEWS, Jan. 3, 2007, <http://abcnews.go.com/Health/Business/story?id=2758704&page=1>. Enviga claims were also investigated by the Connecticut Attorney General Richard Blumenthal who called Enviga’s claims “voodoo nutrition,” unless they could be supported by scientific studies. FOXNews.com, *Coca-Cola Energy Drink Investigated by Connecticut AG*, Feb. 5, 2007, <http://www.foxnews.com/story/0,2933,250364,00.html>; Lloyd de Vries, *Connecticut Probing Diet Drink Claims*, CBS NEWS, Feb. 5, 2007, <http://www.cbsnews.com/stories/2007/02/05/health/main2434316.shtml>.

³³ Letter from Center for Science in the Public Interest to The Coca-Cola Company, Nestlé USA, Inc., and Beverage Partners Worldwide (Dec. 4, 2006), http://cspinet.org/new/pdf/enviga_letter.pdf [hereinafter CSPI Enviga Letter].

³⁴ 21 U.S.C. § 321(n) (2010).

³⁵ Marikar, *supra* note 32.

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than you consume.’... ‘There is a calorie burning effect from a single can.’³⁶ The label on the front of an Enviga can described Enviga as “the Calorie Burner,”³⁷ the side panel contained other claims:

- Enviga ‘increases your metabolism to gently increase calorie burning.’
- Enviga gives ‘your body a little extra boost.’
- The caffeine and EGCG in Enviga ‘invigorate your metabolism to burn calories.’
- The caffeine alone ‘stimulates your body to enhance the calorie burning process.’³⁸

On the back of the can Enviga includes the following statements:

- Three cans per day of Enviga have been shown to increase calorie burning by 60–100 calories in healthy normal weight 18–35 year olds.
- Enviga burns calories but is not by itself a guaranteed weight loss solution.
- Remember, weight loss requires a reduced calorie diet and regular exercise. Individual results may vary. Drinking more than three cans per day will not have an additional effect.’³⁹

³⁶ CSPI Enviga Letter, *supra* note 33 (quoting Enviga FAQs, www.enviga.com/#FAQs (accessed Nov. 27, 2006)); Press Release, Coca-Cola North America and Beverage Partners Worldwide, New Enviga Proven to Burn Calories (Oct. 11, 2006), <http://www.thecoca-colacompany.com/presscenter/pdfs/enviga.pdf>; EGCG, <http://www.enviga.com/#EGCG> (last visited Apr. 4, 2010).

³⁷ Bogus Enviga Claims, *supra* note 32.

³⁸ CSPI Enviga Letter, *supra* note 33.

³⁹ Read the Back of the Enviga Can, http://www.enviga.com/_pop/nutritional_information.html (last visited Apr. 4, 2010).

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These statements are on the back of the can, but the product is marketed as a calorie-burning beverage; what good is that? In New York City, outdoor advertising included the following statement: ““Be positive. Drink negative.””⁴⁰

Coca-Cola and Nestlé justified these negative calories by explaining that Enviga was high in the antioxidant EGCG.⁴¹ Coca-Cola also purportedly encouraged drinking three cans per day to achieve the desired effect,⁴² and that three 12-ounce cans of Enviga—each containing five calories—would burn 60–100 calories in healthy adults aged 18–35.⁴³ They attempted to substantiate their claims with a study. In the “72-hour Nestlé-funded study[] 31 people [] were given a drink containing amounts of EGCG and caffeine equivalent to three cans of Enviga. On average, those subjects expended more energy, according to an abstract of the unpublished study.”⁴⁴ The subjects’ caloric expenditure increased an average of 106 kilocalories per day, with “no adverse side effects on heart rate or blood pressure.”⁴⁵

Even though Coca-Cola’s chief scientist added a disclaimer to the study, stating that Enviga was “not a magic bullet,”⁴⁶ Enviga was still attacked for having misleading labeling and

⁴⁰ CSPI Enviga Letter, *supra* note 33.

⁴¹ Bogus Enviga Claims, *supra* note 32.

⁴² CSPI Enviga Letter, *supra* note 33.

⁴³ Duane Stanford, *Coke Serves Green Tea to a World with Calories to Burn*, THE SYDNEY MORNING HERALD, Oct. 13, 2006, available at <http://www.smh.com.au/news/business/coke-serves-green-tea-to-a-world-with-calories-to-burn/2006/10/12/1160246260394.html>; Servane Rudelle et al., *Effect of a Thermogenic Beverage on 24-Hour Energy Metabolism in Humans*, 15 OBESITY 349, 349 (2007) (“The present study provides evidence that consumption of a beverage containing green tea catechins, caffeine, and calcium increases 24-hour [energy expenditure] by 4.6%, but the contribution of the individual ingredients cannot be distinguished.”) [hereinafter Clinical Study].

⁴⁴ Bogus Enviga Claims, *supra* note 32. The study was conducted by Nestlé and researchers at the University of Lausanne in Switzerland. Enviga FAQs, <http://www.enviga.com/#FAQs> (last visited Apr. 4, 2010).

⁴⁵ Enviga Clinical Study, <http://www.enviga.com/#Science> (last visited Apr. 4, 2010); Clinical Study, *supra* note 43, at 352 (noting that the subjects all ate a set diet in a metabolic chamber).

⁴⁶ Stanford, *supra* note 43.

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advertising practices. The CSPI noted that the study used “unrealistically large doses” of caffeine and EGCG, and that the study “produced inconsistent results.”⁴⁷ Additionally, none of the 31 subjects were overweight or obese.⁴⁸ According to scientists at the CSPI, “Enviga is just a highly caffeinated and over-priced diet soda, and is exactly the kind of faddy, phony diet aid it claims not to be.”⁴⁹ Coca-Cola and Nestlé claimed Enviga was not marketed⁵⁰ as a weight loss product, but “some doctors and consumer advocates say that looking at the ads, it's hard to think of anything else.”⁵¹ People accused Coca-Cola and Nestlé of “putting marketing hype ahead of science.”⁵² A European study found that the combination of caffeine and EGCG did not induce weight loss; whereas a Japanese study by a tea company found that this combination did produce the weight-loss and calorie-burning effects that Enviga claimed.⁵³ Coca-Cola and Nestlé eventually agreed to pay \$650,000 to settle and “to add disclosures that disclaim any suggestion that the drink inherently has weight-loss benefits.”⁵⁴

THE SAFETY AND SIDE EFFECTS OF CAFFEINE AND ENERGY DRINKS

⁴⁷ *Id.*; CSPI Enviga Letter, *supra* note 33.

⁴⁸ Bogus Enviga Claims, *supra* note 32. The 31 subjects had a mean weight 65.3. Clinical Study, *supra* note 43, at 352.

⁴⁹ Bogus Enviga Claims, *supra* note 32.

⁵⁰ Beverage Partners Worldwide (BPW) marketed Enviga. CSPI Enviga Letter, *supra* note 33.

⁵¹ Marikar, *supra* note 32.

⁵² *Id.* (quoting Dr. David Katz).

⁵³ Bogus Enviga Claims, *supra* note 32.

⁵⁴ James P. Miller, *Coke, Nestlé Settle Suit Over Weight-Loss Claims for Enviga*, CHICAGO TRIBUNE, Feb. 26, 2009, available at <http://archives.chicagotribune.com/2009/feb/26/business/chi-lisa-madigan-coke-suit-feb27>.

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The main benefits of energy drinks are the energy boost and multivitamins that they provide,⁵⁵ however there is debate over whether energy drinks have a net positive effect.⁵⁶ Generally consumption of up to 300 mg of caffeine per day poses no physical problems, according to the American Dietetics Association.⁵⁷ The amount of caffeine in a standard cup of coffee may be harmless to most people, but energy drinks contain far more caffeine than a standard cup of coffee.⁵⁸ For example, a 24-ounce can of Rockstar “has as much caffeine as three espressos, and as much sugar as six large doughnuts.”⁵⁹ Rockstar Zero Carb, Rockstar Punched, and Rockstar Roasted products each have 120 mg of caffeine per serving (2 servings in a 16-ounce can).⁶⁰ Rockstar Energy Shots are only 2.5 fluid ounces, but each container packs 200 mg of caffeine.⁶¹

Consumption of multiple energy drinks or one energy drink and a cup of coffee may lead to excessive caffeine intake.⁶² The causal relationship between energy drinks and health problems (e.g., seizures, kidney failure, cardiac dysrhythmia) is uncertain, but such problems

⁵⁵ See Martica Heaner, MSN Health & Fitness, *Addicted to Energy Drinks: Can Drinking Rockstar Every Day Harm My Health?*, <http://health.msn.com/fitness/articlepage.aspx?cp-documentid=100151762> (last visited Apr. 4, 2010).

⁵⁶ Reissig et al., *supra* note 6, at 4.

⁵⁷ Heaner, *supra* note 55; see Sheri Zidenberg-Cherr and Anna Jones (eds.), University of California Davis, *Setting the Record Straight on Caffeine and Health*, 31 *Nutrition Perspectives* 2 (2006); Heneman and Zidenberg-Cherr, *supra* note 9, at 1 (“[C]onsumption of up to 400 mg caffeine daily by healthy adults is not associated with adverse effects.”).

⁵⁸ Center for Science in the Public Interest, *Chemical Cuisine: Learn About Food Additives*, <http://www.cspinet.org/reports/chemcuisine.htm#caffeine> (last visited Apr. 4 2010).

⁵⁹ *Do Some Homework Before Making Energy Drinks Part of a Study Routine*, MEDICAL NEWS TODAY, July 30, 2009, <http://www.medicalnewstoday.com/articles/159345.php>.

⁶⁰ Rockstar Energy Drink: Products – Zero Carb, <http://www.rockstar69.com/productIngredients.php?pdt=3> (last visited Apr. 4, 2010); Rockstar Energy Drink: Products – Punched, <http://www.rockstar69.com/productIngredients.php?pdt=7> (last visited Apr. 4, 2010); Rockstar Energy Drink: Products – Roasted, <http://www.rockstar69.com/productIngredients.php?pdt=9> (last visited Apr. 4, 2010).

⁶¹ Rockstar Energy Drink: Products – Energy Shots, <http://www.rockstar69.com/productIngredients.php?pdt=11> (last visited Apr. 4, 2010).

⁶² Heneman and Zidenberg-Cherr, *supra* note 9.

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have been reported after consumption of energy drinks.⁶³ There have been other cases reported of people who suddenly died after drinking energy drinks.⁶⁴ An Irish man died after drinking four cans of Red Bull and playing in a basketball game;⁶⁵ caffeine was also an “ambient factor” in the club death of a twenty year old in the United Kingdom.⁶⁶ Energy drinks can also exacerbate pre-existing health issues like obesity and sleep deprivation.⁶⁷ When mixed with alcohol—a common practice among partygoers⁶⁸—energy drinks “lessen[] the impression but not the effects of drunkenness....”⁶⁹

A director of sports nutrition at the University of Pittsburgh Medical Center maintains that, “[c]affeine is not safe for everyone especially in larger quantities.”⁷⁰ In fact, “Caffeine

⁶³ FEDERAL INSTITUTE FOR RISK ASSESSMENT, NEW HUMAN DATA ON THE ASSESSMENT OF ENERGY DRINKS, BfR Information No. 016/2008 (Mar. 2008), *available at* www.bfr.bund.de/.../new_human_data_on_the_assessment_of_energy_drinks.pdf.

⁶⁴ FEDERAL INSTITUTE FOR RISK ASSESSMENT, HEALTH RISKS OF EXCESSIVE ENERGY SHOT INTAKE, BfR Opinion No. 001/2010 (Dec. 2009), *available at* www.sanutricion.org.ar/energy-shot-bfr.pdf [hereinafter ENERGY SHOT INTAKE]; Daniel Dasey, *Man’s Heart Stops After Red Bull Overdose*, THE SYDNEY MORNING HERALD, Aug. 19, 2007; *See* European Food Safety Auth., Scientific Opinion of the Panel on Food Additives and Nutrient Sources Added to Food, The Use of Taurine and D-Gucurono- γ -Lactone as Constituents of the So-Called “Energy” Drinks, THE EFSA JOURNAL 935, 1-31 (2009) (adopted Jan. 15, 2009), *available at* <http://www.efsa.europa.eu/en/scdocs/doc/935.pdf>.

⁶⁵ ENERGY SHOT INTAKE, *supra* note 64; Christian Nordqvist, *French Ban on Red Bull (Drink) Upheld by European Court*, MEDICAL NEWS TODAY, Feb. 8, 2004, <http://www.medicalnewstoday.com/articles/5753.php>.

⁶⁶ *Red Bull Caffeine Drink “May Have Helped Cause” Student’s Death*, HERALD SCOTLAND, Feb. 2, 2009, <http://www.heraldscotland.com/red-bull-caffeine-drink-may-have-helped-cause-student-s-death-1.901617>.

⁶⁷ *Do Some Homework Before Making Energy Drinks Part of a Study Routine*, MEDICAL NEWS TODAY, July 30, 2009, <http://www.medicalnewstoday.com/articles/159345.php>.

⁶⁸ Nordqvist, *supra* note 65 (pointing out the popular club drink Red Bull and vodka).

⁶⁹ Joseph Tandy, *France Ends 12-Year Ban on Energy Drink Red Bull*, REUTERS, July 15, 2008, <http://www.reuters.com/article/idUSL1576964720080715>.

⁷⁰ Marikar, *supra* note 32; Heneman and Zidenberg-Cherr, *supra* note 9, at 1 (internal citations omitted) (“Adolescents should limit caffeine consumption, as intakes greater than 100 mg/day has been associated with elevated blood pressure.”).

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Intoxication” is included in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR):

The essential feature of Caffeine Intoxication is recent consumption of caffeine and five or more symptoms that develop during, or shortly after, caffeine use (Criteria A and B). Symptoms that can appear following the ingestion of as little as 100 mg of caffeine per day include restlessness, nervousness, excitement, insomnia, flushed face, diuresis, and gastrointestinal complaints. Symptoms that generally appear at levels of more than 1 g/day include muscle twitching, rambling flow of thoughts and speech, tachycardia or cardiac arrhythmia, periods of inexhaustibility, and psychomotor agitation.⁷¹

Caffeine can increase anxiety, panic attacks, stomach problems, and cardiac arrhythmias.⁷² It is addictive, and withdrawal can cause symptoms such as headaches, irritability and lethargy.⁷³

Physical activity or alcohol may amplify the adverse effects of the already high levels of caffeine

⁷¹ *Caffeine Intoxication*, DSM-IV-TR, Diagnostic and Statistical Manual of Mental Disorders – 4th Ed. (DSM-IV-TR™, 2000). The DSM-IV-TR also includes a separate entry for “Caffeine-Related Disorder[s]”. *Additional Information on Caffeine-Related Disorder*, DSM-IV-TR, Diagnostic and Statistical Manual of Mental Disorders – 4th Ed. (DSM-IV-TR™, 2000) (“Typical patterns of caffeine intake have not been consistently associated with other medical problems. However, heavy use is associated with the development or exacerbation of anxiety and somatic symptoms such as cardiac arrhythmias and gastrointestinal pain or diarrhea. With acute doses exceeding 10 g of caffeine, grand mal seizures and respiratory failure may result in death. Excessive caffeine use is associated with Mood, Eating, Psychotic, Sleep, and Substance-Related Disorders, whereas individuals with Anxiety Disorders are likely to avoid this substance.”).

⁷² Foreman, *supra* note 17; Anne Harding, *Labels Urged for Caffeinated Energy Drinks*, REUTERS, Sept. 30, 2008, <http://www.reuters.com/article/idUSTRE48T5VC20080930>; Heaner, *supra* note 55; See European Food Safety Auth., Scientific Opinion of the Panel on Food Additives and Nutrient Sources Added to Food, The Use of Taurine and D-Gucurono- γ -Lactone as Constituents of the So-Called “Energy” Drinks, THE EFSA JOURNAL 935, 1-31 (2009) (adopted Jan. 15, 2009), available at <http://www.efsa.europa.eu/en/scdocs/doc/935.pdf> (“[R]esearchers recommended that patients with high blood pressure or cardiac diseases and corresponding medication should refrain from consuming “energy” drinks because of a possible health risk.”).

⁷³ See Foreman, *supra* note 17.

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in energy drinks and shots.⁷⁴ Large amounts of caffeine may also “increase[] the risk of miscarriages (and possibly birth defects) and inhibit[] fetal growth....”⁷⁵ Reports have shown that pregnant women who drank only 200 mg of caffeine “increased [their] risk of miscarriage (15% versus 12%) and that the corresponding risk for pregnant women with caffeine intakes of more than 200 mg was considerably higher (25% versus 12%).”⁷⁶ Some researchers worry that children and teenagers who use energy drinks might be more likely to use prescription drugs like Ritalin.⁷⁷ The growth in energy drink consumption among teenagers has also led to an increase in “toxic jock” behavior, characterized by an assortment of aggressive and destructive behaviors such as substance abuse, unprotected sex, and violence.⁷⁸

⁷⁴ ENERGY SHOT INTAKE, *supra* note 64.

⁷⁵ Center for Science in the Public Interest, Chemical Cuisine: Learn About Food Additives, <http://www.cspinet.org/reports/chemcuisine.htm#caffeine> (last visited Apr. 4 2010); Nordqvist, *supra* note 65; Heneman and Zidenberg-Cherr, *supra* note 9, at 1 (“[C]onsumption of energy drinks by pregnant or nursing women, adolescents, and children is not recommended.”).

⁷⁶ FEDERAL INSTITUTE FOR RISK ASSESSMENT, NEW HUMAN DATA ON THE ASSESSMENT OF ENERGY DRINKS, BfR Information No. 016/2008 (Mar. 2008), *available at* www.bfr.bund.de/.../new_human_data_on_the_assessment_of_energy_drinks.pdf; Center for Science in the Public Interest, ‘Calorie Burning’ Enviga Tea Drink a Fraud, *Group Says*, Dec. 4, 2006, <http://www.cspinet.org/new/200612041.html> (“The 300 milligrams of caffeine in the recommended three cans of Enviga per day (the caffeine equivalent of nine cans of Coke) is at the very upper limit of what experts consider safe for woman who are pregnant or may become pregnant. The FDA has urged pregnant women to avoid or minimize their intake of caffeine.”).

⁷⁷ Harding, *supra* note 72 (“Because energy drinks are touted as performance enhancers and stimulants,... kids who use them for these reasons will likely be more open to trying prescription drugs that promise the same effects.”).

⁷⁸ Tara Parker-Pope, *Taste for Quick Boost Tied to Taste for Risk*, NEW YORK TIMES, May 27, 2008; Kathleen E. Miller, *Wired: Energy Drinks, Jock Identity, Masculine Norms, and Risk Taking*, 56 J. AM. C. HEALTH 481, 482 (2008); Reissig et al., *supra* note 6, at 6 (“[M]ixing energy drinks with alcohol was associated with increased heavy episodic drinking and episodes of weekly drunkenness.”).

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Energy drinks can generate unhealthy and undesired side effects because of the high concentration of caffeine in combination with numerous other ingredients such as taurine.⁷⁹ The Original Rockstar drink contains the following ingredients, as listed on the label: carbonated water, sucrose, glucose, citric acid, taurine, natural and artificial flavors, sodium citrate, caffeine, caramel color, benzoic acid, sorbic acid, L-carnitine, inositol, niacinamide, calcium pantothenate, milk thistle extract, ginkgo biloba leaf extract, guarana seed extract, panax ginseng root extract, riboflavin, pyridoxine hydrochloride, and cyanocobalamin.⁸⁰ Minimal scientific evidence exists to substantiate claims that some of these ingredients substantially increase endurance, mental performance and weight loss or that they have other physically beneficial effects.⁸¹ Additionally, insufficient scientific data exists to verify the safety of these substances, specifically taurine.⁸² Taurine is a natural human metabolite that occurs in other foods as well as in energy drinks.⁸³

⁷⁹ Heneman and Zidenberg-Cherr, *supra* note 9, at 4 (“[T]he safety of consuming caffeine in combination with other herbal supplements found in energy drinks prior to or during exercise has yet to be established.”).

⁸⁰ Rockstar Energy Drink: Products – Original Rockstar, <http://www.rockstar69.com/productIngredients.php?pd=1> (last visited Apr. 4, 2010). Monster Energy contains the following ingredients: carbonated water, sucrose, glucose, citric acid, natural flavors, taurine, sodium citrate, color added, panax ginseng root extract, L-carnitine, caffeine, sorbic acid, benzoic acid, niacinamide, sodium chloride, glucuronolactone, inositol, guarana seed extract, pyridoxine hydrochloride, sucralose, riboflavin, maltodextrin, and cyanocobalamin. Monster Energy Drink – Products, <http://www.monsterenergy.com/web/products>, click “View Ingredients” (last visited Apr. 4, 2010).

⁸¹ Heneman and Zidenberg-Cherr, *supra* note 9.

⁸² Some health authorities link taurine with increases in neurophysiological problems. Tandy, *supra* note 69; Heneman and Zidenberg-Cherr, *supra* note 9; Energy Shot Intake, *supra* note 64, at 1 (“It remains to be clarified whether the interaction of caffeine with other constituents in energy drinks (e.g. taurine) or with ethanol in the alcoholic beverages consumed alongside energy shots or with physical exertion (e.g. extended, physically strenuous dancing or sports activities) could amplify the adverse effects of caffeine. An actual causal relationship between these factors has not yet been scientifically demonstrated.”).

⁸³ European Food Safety Auth., Scientific Opinion of the Panel on Food Additives and Nutrient Sources Added to Food, The Use of Taurine and D-Gucurono- γ -Lactone as Constituents of the

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The European Food Safety Authority (EFSA) has said that exposure to taurine is not a concern at the average level of 0.5 can of energy drink per day⁸⁴ (most people would drink the whole can). The EFSA panel “considered it possible that the health problems mentioned could be due to the well-known side effects of high caffeine intake, while the assumption of a causal relationship with taurine intake [was] lacking scientific evidence.”⁸⁵ Nonetheless, some doctors still do not believe enough scientific evidence exists to know the effects of taurine—and thus, energy drinks as a whole—on the body and the brain.⁸⁶

PROPONENTS OF CAFFEINE AND ENERGY DRINK REGULATION

At a 2006 FDA hearing, the CSPI pushed the FDA to adopt more stringent standards for energy drinks and other “functional foods.”⁸⁷ Again, in 2008, scientists petitioned the FDA to tighten regulations on energy drinks by setting a limit on the amount of caffeine allowed in the product and by requiring the amount of caffeine to be listed on the label along with a warning.⁸⁸

So-Called “Energy” Drinks, THE EFSA JOURNAL 935, 1-31 (2009) (adopted Jan. 15, 2009), available at <http://www.efsa.europa.eu/en/scdocs/doc/935.pdf>.

⁸⁴ James Ferre, *Two Popular Energy Drink Ingredients Not of Safety Concern: EFSA*, AUSTRALIA FOOD NEWS, Feb. 13, 2009, <http://www.ausfoodnews.com.au/2009/02/13/two-popular-energy-drink-ingredients-not-of-safety-concern-efsa.html>.

⁸⁵ *Id.*

⁸⁶ *Scientists Close in on Taurine’s Activity in the Brain*, MEDICAL NEWS TODAY, Jan. 18, 2008, <http://www.medicalnewstoday.com/articles/94393.php>, (“Remarkably little is known about the effects of energy drinks on the brain. We can’t even be sure how much of the taurine in the drink actually reaches the brain!” Dr. Harrison says.”).

⁸⁷ *Conventional Foods Being Marketed as “Functional Foods:” Hearing Before the FDA* (2006).

⁸⁸ Weise, *supra* note 6; Weise, *supra* note 3. The fact that such concerns appear to have minimal, if any, negative impact on energy drink sales, might dissuade the government and consumer advocacy groups from pursuing more stringent regulatory policies. Daniel Palmer, *France Reluctantly Lifts Ban on Red Bull*, AUSTRALIAN FOOD NEWS, July 17, 2008, <http://www.ausfoodnews.com.au/2008/07/17/france-reluctantly-lifts-ban-on-red-bull.html>.

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The FDA limits the amount of caffeine in soft drinks like Coca-Cola, and requires over-the-counter stimulant drugs with caffeine to list the amount of caffeine on the label, however energy drinks are able to escape both of these requirements:⁸⁹ “It is a striking inconsistency that, in the U.S. an OTC stimulant medication containing 100 mg of caffeine per tablet (e.g. NoDoz) must include ...warnings, whereas a 500 mg energy drink can be marketed with no such warnings and no information on caffeine dose amount in the product.”⁹⁰ What sense does this make? A 12-ounce can of Coca-Cola has 54 mg of caffeine, whereas a 16-ounce can of Rockstar has 160 mg of caffeine—only 40 mg less than the amount of caffeine in 1 tablet of Vivarin, an over-the-counter drug.⁹¹

Regulation in Other Countries

If the FDA tightened its regulations on caffeine and energy drinks, it would not be the first to do so. France once banned energy drinks.⁹² The popular energy drink Red Bull was banned in France for twelve years “due to health authorities’ concerns about unknown consequences of the ingredient taurine, a chemical forbidden in several countries.”⁹³ At first, the

⁸⁹ Harding, *supra* note 72.

⁹⁰ Reissig et al., *supra* note 6, at 2 (“The FDA has been lax in regulating the caffeine content of energy drinks and does not require warning labels advising proper use or the amount of caffeine in the product, as it does for over-the-counter (OTC) caffeine-containing stimulants.”).

⁹¹ Center for Science in the Public Interest, Caffeine Content of Food & Drugs, <http://www.cspinet.org/new/cafchart.htm>, (last visited Apr. 4, 2010).

⁹² European Food Safety Auth., Scientific Opinion of the Panel on Food Additives and Nutrient Sources Added to Food, The Use of Taurine and D-Gucurono- γ -Lactone as Constituents of the So-Called “Energy” Drinks, THE EFSA JOURNAL 935, 1-31 (2009) (adopted Jan. 15, 2009), available at <http://www.efsa.europa.eu/en/scdocs/doc/935.pdf>.

⁹³ Tandy, *supra* note 69; Pfanner, *supra* note 5 (“The French authorities had long objected to one of its active ingredients, an amino acid called taurine, because of concerns that it could speed heart rates to unhealthy levels.”).

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European Court of Justice upheld the ban on Red Bull, only if France could prove the claimed health risks. The European Court's Scientific Committee on Food thought more studies needed to be done on caffeine, taurine, and glucuronolactone.⁹⁴ In 2008, the French government eventually legalized Red Bull, in absence of enough evidence that it is harmful.⁹⁵

In Germany, energy shots are marketed as dietary supplements,⁹⁶ and manufacturers can only distribute and sell them under certain conditions.⁹⁷ Germany's Federal Institute for Risk Assessment (BfR) recommends detailed information on product labels:

[A]dverse effects cannot be ruled out when larger amounts of these beverages are consumed in conjunction with intensive physical activity or with the intake of alcoholic beverages[.] [B]everages of this kind, particularly when consumed in larger amounts, are not recommended for children, pregnant women, lactating women or individuals who are sensitive to caffeine.⁹⁸

Red Bull put warnings on cans in Austria indicating high levels of caffeine in the product and possible harmful effects for pregnant women and children.⁹⁹ Ireland has the following regulation concerning caffeine labeling:

Article 2 (1). Where a beverage which is intended for consumption without modification,...contains caffeine, from whatever source, in a proportion in excess of 150 mg/l, the following message must appear on the label in the same field of

⁹⁴ Nordqvist, *supra* note 65.

⁹⁵ Tandy, *supra* note 69; Pfanner, *supra* note 5 (“Though researchers in the United States have recently found links between consumption of energy drinks and risky behavior by teenagers, those concerns cannot be substantiated,” said a French Finance Ministry spokeswoman).

⁹⁶ Energy Shot Intake, *supra* note 64.

⁹⁷ FEDERAL INSTITUTE FOR RISK ASSESSMENT, NEW HUMAN DATA ON THE ASSESSMENT OF ENERGY DRINKS, BfR Information No. 016/2008 (Mar. 2008), *available at* www.bfr.bund.de/.../new_human_data_on_the_assessment_of_energy_drinks.pdf.

⁹⁸ *Id.*

⁹⁹ *See* Tandy, *supra* note 69.

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vision as the name under which the product is sold: ‘High caffeine content’. ...

(2). Paragraph 1 shall not apply to beverages based on coffee, tea or coffee or tea extract where the name under which the product is sold includes the term ‘coffee’ or ‘tea’.¹⁰⁰

Based on scientific studies, the Scientific Committee on Food found it necessary for such beverages to include warning messages and indication of the amount of caffeine on the label in order to give consumers clear information.¹⁰¹ Bans have also been enforced in Norway, Denmark, Uruguay, and Iceland.¹⁰²

In New Zealand, energy drinks are regulated as dietary supplements. The drinks must contain warning statements on the packaging indicating the level of caffeine and that they are not recommended for children, lactating women, or people with caffeine sensitivity.¹⁰³ A standard

¹⁰⁰ Commission of the European Communities, COMMISSION DIRECTIVE 2002/67/EC on the Labelling of Foodstuffs Containing Quinine, and of Foodstuffs Containing Caffeine (2002), *available at* <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:191:0020:0021:EN:PDF>; European Communities (Labelling, Presentation and Advertising of Foodstuffs) (Amendment) (No. 3) Regulations, S.I. No. 528 (2003), *available at* (<http://www.fsai.ie/uploadedFiles/SI528.2003.pdf>).

¹⁰¹ Commission of the European Communities, COMMISSION DIRECTIVE 2002/67/EC on the Labelling of Foodstuffs Containing Quinine, and of Foodstuffs Containing Caffeine (2002), *available at* <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:191:0020:0021:EN:PDF>; *See* Le Gouvernement du Grand-Duché de Luxembourg, ETIQUETAGE DES DENREES ALIMENTAIRES GUIDE POUR LES ENTREPRISES DU LUXEMBOURG (2007), *available at* www.lns.public.lu/publications/fiches-info/F-010-00.pdf (outlining Luxembourg’s regulation, which is the same as Ireland’s).

¹⁰² Palmer, *supra* note 88; FEDERAL INSTITUTE FOR RISK ASSESSMENT, NEW HUMAN DATA ON THE ASSESSMENT OF ENERGY DRINKS, BfR Information No. 016/2008 (Mar. 2008), *available at* www.bfr.bund.de/.../new_human_data_on_the_assessment_of_energy_drinks.pdf (listing Norway and Denmark as two countries that ban some energy drinks).

¹⁰³ New Zealand Food Safety Authority, Energy Shots, <http://www.nzfsa.govt.nz/hot-topics/hot-topic-energy-shots.htm> (last visited Apr. 4, 2010); New Zealand Food Safety Authority, Draft New Zealand Food (Supplemented Food) Standard 2008,

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regulating energy drinks (as “formulated caffeinated beverages”) mandates that they contain no more than 320 mg/l of caffeine, and no more than 2000 mg (per one day quantity) of taurine.¹⁰⁴ The Australia and New Zealand Food Authority also proposed a regulation requiring declaration of caffeine amounts on labels when the herbal supplement guarana (which contains caffeine) has been added to food.¹⁰⁵ The labels must include the quantity of caffeine and other substances listed in the regulation, like taurine and inositol, and warnings for pregnant women and children.¹⁰⁶

State Regulation Attempts

Some states have attempted to pass legislation regarding caffeine in energy drinks. A Louisiana senator recently proposed a ban on the sale of energy drinks (excluding coffee) to people less than 16 years old.¹⁰⁷ The proposed legislation, currently referred to the Committee on Commerce, Consumer Protection and International Affairs,¹⁰⁸ reads as follows:

§ 1427. Unfair trade practices; sale of energy drinks to consumers under the age of sixteen: A. It shall be an unfair trade practice for any retail business to

<http://www.nzfsa.govt.nz/consultation/supplemented-food/draft-standard/page-12.htm> (last visited Apr. 4, 2010).

¹⁰⁴ Food Standards Australia New Zealand, Standard 2.6.4 Formulated Caffeinated Beverages, available at www.foodstandards.gov.au/_srcfiles/Standard_2_6_4_FCBs_v113.pdf.

¹⁰⁵ Food Standards Australia New Zealand, Energy Drinks Application From Red Bull GmbH, <http://www.foodstandards.gov.au/scienceandeducation/factsheets/factsheets1999/energydrinksapplication32.cfm> (last visited Apr. 4, 2010).

¹⁰⁶ Standard 2.6.4 Formulated Caffeinated Beverages, *supra* note 104.

¹⁰⁷ *Senator Proposes Energy Drink Ban*, HOUSTON CHRONICLE, Mar. 18, 2010, available at <http://www.chron.com/dispatch/story.mpl/health/6919128.html>.

¹⁰⁸ SB128 – 2010 Regular Session – Instrument Information, <http://www.legis.state.la.us/billdata/byinst.asp?sessionid=10RS&billid=SB128> (last visited Apr. 4, 2010).

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knowingly sell an energy drink to a consumer under the age of sixteen. B. For the purpose of this Section, ‘energy drink’ means any drink, except coffee, that contains at least five milligrams of caffeine per fluid ounce. C. Any violation of this Section shall be deemed an unfair trade practice and shall subject the violator to any and all actions and penalties provided for in this Chapter.¹⁰⁹

At least one nutritionist already supports this legislation.¹¹⁰ In September 2008, a Michigan senator proposed legislation that would require energy drinks and other bottled beverage manufacturers to list the amount of caffeine on their products: “Section 4115a. Any bottled drink not subject to section 4115 shall have indicated, upon its label, the caffeine content.”¹¹¹ A proposed bill on the Massachusetts Senate docket reads as follows:

Section 8B: (a) As used in this section, the term “energy drink” shall mean a carbonated beverage that exceeds caffeine content of 100 milligrams of caffeine per 8 ounce serving. (b) Whoever sells an energy drink to any person under the age of 18 shall be punished by a fine of not less than \$100 for the first offense, not

¹⁰⁹ Commercial Regulations: Prohibits the Sale of “Energy Drinks” to Consumers Under the Age of Sixteen, SB128 (2010) (assigned to Senate Commerce, Consumer Protection, & International Affairs), *available at* <http://www.legis.state.la.us/billdata/streamdocument.asp?did=685500>.

¹¹⁰ Chris Miller, *Energy Drink Ban Gets Backing of LSU Doc*, WWL – AM870 | FM105.3 | News | Talk | Sports, <http://www.wwl.com/pages/6613440.php?> (Mar. 19, 2010, 08:30 EST) (“[Dr. Kathy] Champagne says for adults, the drinks bring a sharp energy rush, followed by a crash when the stimulants wear off. She says various energy drinks often contain other unregulated stimulants, the effects of which aren't fully known.”).

¹¹¹ Press Release, Michigan Senate Democrats, Switalski to Red Bull: List the Caffeine (Oct. 8, 2008), *available at* <http://www.senate.michigan.gov/dem/pr.php?id=1093>; Senate Bill No. 1469, A Bill to Amend 2000 PA 92, entitled "Food law of 2000," by amending § 4115 (MCL § 289.4115) and by adding § 4115a, <http://www.legislature.mi.gov/documents/2007-2008/billintroduced/Senate/htm/2008-SIB-1469.htm>.

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less than \$200 for the second offense and not less than \$300 for the third or any subsequent offense.¹¹²

The proposed legislation also seeks to prohibit students in primary and secondary schools from drinking energy drinks on school grounds.¹¹³

LABEL CAFFEINE AMOUNT

Tightening regulations on caffeine in energy drinks may help curb the prevalence of caffeine dependence that results from “marketing campaigns promoting the use of energy drinks among adolescents.”¹¹⁴ According to Roland Griffiths, a psychopharmacologist and professor in the department of psychiatry and neuroscience at Johns Hopkins University, “caffeine ‘is relatively benign and is not associated with life-threatening health risks,’...[but] it is being promoted in the form of energy drinks and, alarmingly, in many cases to children and adolescents,” Griffiths said.¹¹⁵ Both Monster and Rockstar directly market their product to teens by sponsoring extreme sports, athletes, concerts, festivals,¹¹⁶ and college events.¹¹⁷ Monster’s website reads:

Most companies spend their money on ad agencies, TV commercials, radio spots, and billboards to tell you how good their products are. At Monster we choose

¹¹² An Act Restricting the Sale of Energy Drinks to Minors, S. Doc. No. 1684, 186th Sess. (Mass. 2009), available at <http://www.mass.gov/legis/bills/senate/186/st01/st01684.htm>.

¹¹³ *Id.*

¹¹⁴ Reissig, *supra* note 6, at 5.

¹¹⁵ Foreman, *supra* note 17.

¹¹⁶ Canadean, Monster to Sponsor Fiesta Atlanta – Soft Drinks – 2009, Mar. 13, 2009, http://www.canadean.com/News/Beverage_Industry_News/ItemId/855.aspx.

¹¹⁷ See Rockstar Energy Drink: Events, <http://www.rockstar69.com/events.php> (last visited Apr. 4, 2010).

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none of the above. Instead, we support the scene, our bands, our athletes and our fans. ...In short, at Monster all our guys walk the walk in action sports, punk rock music, partying, hangin' with the girls, and living life on the edge. Monster is way more than an energy drink. Led by our athletes, musicians, employees, distributors and fans, Monster is... A lifestyle in a can.¹¹⁸

Few people probably read the “About us” section on Monster’s website, but Monster’s role as a sponsor of athletes and “[a] life on the edge” contradict scientific reports and doctor’s messages that energy drinks should not be consumed prior to intense physical activity,¹¹⁹ thereby sending consumers an inaccurate message about the product’s safety.

The FD&C Act should be amended so that the amount of caffeine is included on the label of all energy drink products.¹²⁰ This requirement serves to protect the public health¹²¹ by reducing consumer confusion and by allowing consumers to make healthier choices. Pregnant women, people with minor heart conditions, and other persons sensitive to caffeine would have difficulty choosing the best energy drink for themselves absent information on the quantity of

¹¹⁸ Monster Energy Drink – About Us, <http://www.monsterenergy.com/web/guest/about> (last visited Apr. 4, 2010). Rockstar’s website says: “ROCKSTAR is formulated to provide an incredible energy boost for those who lead active and exhausting lifestyles – from athletes to rock stars.” Rockstar Energy Drink: Company, <http://www.rockstar69.com/company.php> (last visited Apr. 4, 2010).

¹¹⁹ See Energy Shot Intake, *supra* note 82.

¹²⁰ Foreman, *supra* note 17; Reissig, *supra* note 6, at 7 (“Considering the variable and sometimes very high caffeine content of energy drinks, in combination with the aggressive marketing to youthful and inexperienced consumers, it would be prudent to require full disclosure of the amount of caffeine and other ingredients in energy drinks on the product labeling.”).

¹²¹ The FD&C Act establishes the FDA’s mission to: “(1) promote the public health by promptly and efficiently reviewing clinical research and taking appropriate action on the marketing of regulated products in a timely manner; (2) with respect to such products, protect the public health by ensuring that-- (A) foods are safe, wholesome, sanitary, and properly labeled;... and (4) as determined to be appropriate by the Secretary, carry out paragraphs (1) through (3) in consultation with experts in science, medicine, and public health, and in cooperation with consumers, users, manufacturers, importers, packers, distributors, and retailers of regulated products.” 21 U.S.C. § 393(b) (2010).

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caffeine. The amount of caffeine in an energy drink varies greatly between products. An 8-ounce can of Monster Energy Assault has 160 mg of caffeine,¹²² whereas an 8-ounce can of Wired 294 Caffeine contains 294 mg of caffeine.¹²³ According to a behavioral biology professor, some energy drinks contain the same amount of caffeine as 14 cans of Coca-Cola. He also notes that the inclusion of caffeine intoxication in the DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS and in the World Health Organization’s International Classification of Diseases should be reason enough to include caffeine amounts and warnings on product labels.¹²⁴

Including the amount of caffeine on the label might be harmful to smaller companies that would have to pay to redesign their labels. Some energy drink companies already list the amount of caffeine on some of their products, but it may be prohibitively expensive for smaller companies to do so. The American Beverage Association argues that requiring the amount of caffeine on labels creates a “‘slippery slope’ that would require coffeehouses to provide caffeine content information on their products as well.”¹²⁵ But, is that such a bad thing? People will still consume caffeine because it generally does not pose a health risk to most people, but people with sensitivity to caffeine—like pregnant women—will be able to better monitor their caffeine intake if they regularly consume caffeinated beverages. Energy drink companies might argue that finding out the amount of caffeine in energy drinks is the responsibility of the consumer, not the government; the consumer can simply look at a product’s website or call the company’s 1-800

¹²² Heneman and Zidenberg-Cherr, *supra* note 9, at 2.

¹²³ *Id.*

¹²⁴ Tara Parker-Pope, *Warning Labels for Caffeinated Energy Drinks*, NEW YORK TIMES, <http://well.blogs.nytimes.com/2008/09/25/warning-labels-for-caffeinated-energy-drinks/> (Sept. 25, 2008, 11:11 EST); Reissig, *supra* note 6, at 2 (“At least 130 energy drinks now exceed 0.02% caffeine including one that contains 505 mg in a 24 oz can (the equivalent of 14 cans of a typical cola or several cups of coffee)).

¹²⁵ Harding, *supra* note 72.

You Are What You Drink—a Rockst★r or a Monster?

number.¹²⁶ This argument ignores the reality that a consumer purchasing an energy drink is likely in want of energy and probably won't stand in the grocery store aisle calling several 1-800 numbers before deciding which energy drink to purchase.

Product directions absent caffeine levels are confusing to the average consumer. Product directions for 5-hour energy recommend drinking one whole bottle for maximum energy but no more than two bottles per day. Yet, the following cautionary statement says: “Contains caffeine comparable to a cup of the leading premium coffee.”¹²⁷ I don't know what the “leading premium coffee” is, but I imagine that most people can drink at least two, if not more, cups of coffee per day without feeling the side effects that I felt after drinking several energy drinks. The caffeine in a cup of coffee may differ depending on the brand. Is the word “comparable” used to make the consumer think that drinking 5-hour energy is just like drinking coffee, but in a smaller container? If so, why include the warning statement recommending a daily dosage limit of two bottles? The combination of the warning and caution statements, absent any information on the quantity of caffeine in the bottle undoubtedly misleads the consumer. Even the energy drink comparison chart does not give the quantity of caffeine contained in a bottle of 5-hour energy; it merely states “yes”.¹²⁸ It is important for consumers to know the caffeine content in their drinks; “[a]rmed with that knowledge, they can manage their caffeine intake.”¹²⁹

¹²⁶ Wajert, *supra* note 11.

¹²⁷ 5-Hour Energy Shots – Directions for Use, <http://www.5hourenergy.com/healthfacts.asp> (last visited Apr. 4, 2010).

¹²⁸ 5-Hour Energy Shots vs. the Canned Energy Drinks, <http://www.5hourenergy.com/compare.asp> (last visited Apr. 4, 2010).

¹²⁹ Press Release, Michigan Senate Democrats, Switalski to Red Bull: List the Caffeine (Oct. 8, 2008), *available at* <http://www.senate.michigan.gov/dem/pr.php?id=1093> (quoting Michigan Senator Mickey Switalski); *see* FEDERAL INSTITUTE FOR RISK ASSESSMENT, NEW HUMAN DATA ON THE ASSESSMENT OF ENERGY DRINKS, BfR Information No. 016/2008 (Mar. 2008), *available at* www.bfr.bund.de/.../new_human_data_on_the_assessment_of_energy_drinks.pdf (“The additional mention of an official Internet address, telephone number and address on the food

CONCLUSION

The energy drink market is growing. Because there isn't substantial evidence confirming the safety of energy drinks, "the potential for adverse health consequences should be considered and may be cause for preemptive regulatory action."¹³⁰ Other countries have taken such action. Consumers need complete information about the quantity of potentially unhealthy ingredients in energy drinks, so that they can meaningfully compare products. With so many products from which to choose, informed comparisons are all the more valuable to the consumer. Requiring energy drink manufacturers to include the amount of caffeine on the product label allows consumers to more accurately and effectively monitor their caffeine intake. I've debated the question any procrastinating student and midnight-oil-burner must face: To caffeinate or not? Knowing the dose of caffeine in a variety of energy drinks would allow me to choose the product that would remedy my fatigue without poisoning my body.

label could mean that the consumers could access in a targeted manner information pages cleared by authorised [sic] offices.”).

¹³⁰ Reissig, *supra* note 6, at 2.