

Caffeinated Youth: Regulation of Energy Drinks in Question

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Energy drinks are the star of the beverage industry; no such products existed 15 years ago, but today, they have conquered the drink market. Since the debut of Red Bull in 1997, more than 500 new energy drinks have been rushed into the beverage market, establishing the 5.7 billion dollar drink industry by 2006 with an annual growth of 55% in the United States alone [1,2]. Despite the recession, the sales of a new form of concentrated energy beverage – the so called “energy shots” – have been undefeatable, with sales expected to double each year to about \$700 millions [3]. With the rise of the caffeinated beverage industry, it became common to see supermarket and convenient stores dedicating an entire aisle of the beverage section to these energy drinks.

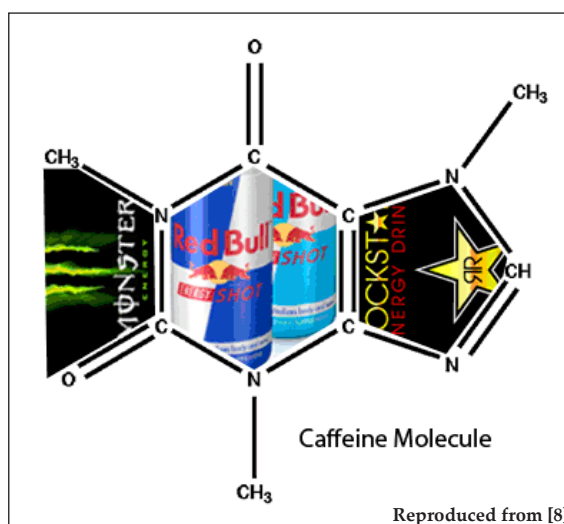
What makes energy drinks so popular? As the name implies, the consumption of energy drinks is intended to give quick “energy” to people. Energy drinks can be described as part soft drink and part nutritional supplement. Like many soft drinks, the main source of this energy comes from both caffeine and sugar. In addition, energy drink companies claim that other components are added to “enhance” the nutritional value and boost the energy power in the body. These components include ephedrine, taurine, ginseng, B-vitamins, guarana seed, carnitine, inositol, and ginkgo biloba – ingredients known to be stimulants of the nervous system or a type of amino acids that helps boost metabolism [4].

However, the rise of energy drinks came with concerns. Energy drinks are especially popular among young adults, the prime advertising targets of drink companies. Research has reflected that youth are more susceptible to misuse and the commercial message lacks the potential negative health effect of energy drinks. As a result, scientists claim the need for regulation of these energy drinks.

The Growing Presence on College Campus

The popularity of energy drinks has especially penetrated into college campuses, where students are in particular demand for quick energy. Through usage of energy drinks, students seek assistance for lack of sleep, physical activities, late night partying, and studying for exams and projects. It is common to see a line of students holding some type of energy drink at the convenient store during final exam season. But to many students, drinking an energy drink is not a seasonal use, but a regular habit. An engineering student from Carnegie Mellon University stated “I habitually

grab an energy drink at the convenient store to be alert in my morning class.” A survey of 496 college students conducted by the Department of Nutrition and Dietetics of East Carolina University reported that 51% of students drink more than one energy drink each month. Out of the energy drink users, the most common reasons for use were to overcome insufficient sleep (67%), to increase energy (64%), to drink with alcohol while partying (54%), to study for finals or projects (50%), to drive for a long period of time (45%), and to treat a hangover (17%) [1].



The Marketing Energy Drink

Energy drink companies understand the busy lifestyle of the college student; they know the competitive nature of classes and common motto of college students “to study hard and play hard.” As a result, companies spend millions of dollars to cater to young adults and college students. These products are advertised as a “natural performance enhancer” for studying and additional activities enjoyed by many young adults. Red Bull claims to be a “functional beverage” that “improves performance, increases concentration and reaction speed, increases endurance, stimulates

metabolism,” appropriate for sports, driving, and leisure activities [1,5]. Many products appeal to the young adult culture. For example, Rockstar derived its name from a popular music called “party like a rock star,” while Monster’s slogan is to “unleash the beast,” targeting the youth’s desire for glorification and wildness. Energy drink companies sponsor athletes, sporting events, nightclub, and music bands. In addition, many advertisements push their consumers toward sex appeal. In extreme cases, the products are promoted with an image of drug usage; cocaine energy drink has been marketed as a “legal alternative” to the class A drug, while Blow is a white powdered energy drink mix that comes in a package that portrays the image of using cocaine [1]. These rigorous marketing techniques establish a distinct image of energy drinking among students. One study shows that energy drink consumptions have been associated with a “toxic jock” identity and masculinity among college undergraduates [6]. Such identity is associated with risk-taking behavior such as “drinking, sexual risk-taking, delinquency, and interpersonal violence” [6]. Surprisingly, a survey of 795 undergraduate students indicates that the measure of masculinity and risk-taking behaviors has a positive relationship with the frequency of energy drink consumption [7].

The Potential Health Effect and Call for Regulation

This image of energy drinks among youth is even more problematic because of the potential health-effect that consumption may cause. Although the energy drink companies are boasting about the amount of energy the product will provide, scientists claim that they ignore the potential effects of their product. Dr. Roland Griffiths, a professor of psychiatry and neuroscience at Johns Hopkins University School of Medicine, voiced his concern about energy drinks' inadequate labeling and the advertisements as a natural performance enhancer. Such messages are targeted toward young adults, who are less tolerant to caffeine, and may result in consumption with negative consequences. Griffiths stated "many of these drinks do not label the caffeine content," while some energy drinks contain as much caffeine as found in 14 cans of soda [8]. Commonly reported cases of consequences of consumption were caffeine intoxication and overdose which include symptoms such as nervousness, anxiety, restlessness, insomnia, gastrointestinal upset, tremore, tachycardia, and psychomotor agitation [9]. In the long term, overconsumption may result in caffeine dependence and withdrawal [9]. What is also concerning is the fact that mixing caffeine with different stimulants has not been proven to be completely safe [9].

Shockingly, in a few cases, consumption of energy drinks has been linked to death. In these cases, the individual was either performing a rigorous physical activity or consuming alcohol while drinking the energy drink. According to The Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention, three people died in Sweden after drinking Red Bull: two had mixed Red Bull with alcohol, and the third drank it after an exercise session [10]. In 2008 in Florida, a sixteen-year old student died after consuming alcohol and energy drinks at a party [10]. Despite such a dangerous link between alcohol and energy drinks, an increasing number of college students are consuming energy drinks with alcohol. In the East Carolina survey, out of 496 college students, 27% of students reported mixing energy drinks and alcohol, 49% of students consumed more than three energy drinks per occasion [1]. Griffiths claims that when energy drinks and alcohols are consumed together, the symptoms of alcohol intoxication are not as evident, increasing the potential for alcohol-related accident and abuse. A different survey of college students indicated that compared to those who consumed alcohol alone, students who consumed alcohol mixed with energy drinks had a significantly higher frequency of alcohol-related consequences including becoming the offender or victim of sexual assault, getting involved in drunk driving, or being injured [9]. Such high concern for the potential health and

safety issues related with energy drink and alcohol lead the Food and Drug Administration to doubt the safety and legality of nearly 30 manufactures of caffeinated alcoholic beverages in 2009 [11].

The Challenge of Regulation

Because of this ongoing problem with energy drink consumption, several countries have begun regulating the sales of energy drinks. Energy drinks in the European Union require a "high caffeine content" label, while those in Canada need to indicate the danger of consumption with alcohol [9]. Norway and France have restricted the sale of energy drinks, while Denmark has prohibited the sale [9].

The regulation of energy drinks in United States has been difficult for numerous reasons. First, energy drinks are generally marketed as dietary supplements rather than food [8]. Although the FDA regulates the caffeine contents of soft-drinks, which are considered food, to 71 mg per 12 fluid ounces, there is no limit prescribed for energy drinks, because they are considered as dietary supplements [8]. Second, caffeine is a natural compound widely consumed for years in coffee and tea [9]. The spokespersons of American Beverage Association pointed out that most energy drinks contain the same or less amount of caffeine than a cup of brewed coffee [8]. They argue that if labels are required on energy drinks, brewed coffee should be subjected to labeling as well [8]. They stated, "Energy drinks can be part of a balanced lifestyle when consumed sensibly."

Regulating consumer products has always been a complicated subject. Not surprisingly, the questions posed on energy drinks resemble those of cigarettes and alcohol. Abuse of cigarettes and alcohol has been identified with negative health consequences. As a result, they have been involved in a never-ending debate on the regulation of areas such as advertising, labeling, and sales to minors. The questions related to energy drinks are comparable: is it acceptable for energy drink companies to capitalize on youth culture which may result in dangerous consequences? Or is it a matter of consumer choice? Like other cases, it is difficult to answer in black and white and the dangers and regulation of energy drinks are still in heated controversy. However, the popularity and misuse of energy drinks indicate that minors and young adults are more potentially subjected to dangerous consumption. Our society is in need of education about daily consumption and encouragement of responsible drinking behavior. ■

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