

Federal study: ER visits related to highly caffeinated drinks up tenfold

December 7 2011, By John Keilman

Emily Marchant had a can of Red Bull at her elbow as she went over an assignment in a Harper College library carrel. She is a long-standing fan of the beverage, she said, usually drinking one a day when she needs a boost.

But she also knows what it's like to take it too far. Two years ago, she said, she was a designated driver for pub-hopping friends in England when she absent-mindedly downed four of the drinks. She ended up with a bad case of the shakes that lasted for hours.

"Yeah," she said, "that didn't work out so good."

Marchant, 21, of Lake in the Hills, Ill., recovered, but according to a federal report, some energy drink fans haven't been so lucky: Emergency room visits involving the beverages have risen tenfold in the U.S. since 2005. While many of the visits were the result of combining energy drinks with alcohol or drugs, 56 percent were due to the consumption of energy drinks alone.

The report, issued last month by the federal Substance Abuse and [Mental Health Services](#) Administration, is the latest piece of criticism directed at the fast-growing, multibillion-dollar energy drink industry. Some researchers and physicians say the beverages, which typically contain copious amounts of caffeine, are unhealthy for young people.

"The kids are coming in with [heart palpitations](#), lightheadedness,

dizziness, feeling faint and headaches," said Dr. Todd Zimmerman, medical director of EmergiKids for the Alexian Brothers Health System. "Then we go through the history, and it turns out they're drinking up to eight to 12 of these drinks a day."

The American Beverage Association, which represents the drink makers, attacked the federal report, saying it did not account for the overall health of the people who had supposedly downed energy drinks. It said the cases - 13,114 in 2009, the latest year reported - accounted for a tiny percentage of the nation's 123 million yearly ER visits.

The association also contended that mainstream energy drinks have half the caffeine of an equivalent-size cup of coffee. Some researchers, though, compare them to soft drinks, which the Centers for Disease Control and Prevention have found to be much more popular than coffee among teens.

A report this year in the journal *Pediatrics* found that energy drinks have about three times as much caffeine as colas, not including the caffeine contained in additives such as guarana, yerba mate and cocoa. The report concluded that the drinks "may put some children at risk for serious adverse health effects."

The beverage association says energy drinks are not intended for young consumers, but Zimmerman said the pediatric emergency units at the St. Alexius and Alexian Brothers medical centers in the northwest suburbs see at least two patients a week with symptoms they attribute to the beverages. The drinks, he said, have become a crutch for teens who think they need a jolt.

"I've heard lots of different reasons: 'It gets me up for the game, gives me energy for school, keeps me awake during school hours,'" he said. "I've seen, relatively recently, adolescents taking them because it will

curb their appetites, which is another extremely dangerous thing."

Art Kubic, a pharmacist at the Illinois Poison Center, said 60 of its 81,000 calls last year were related to energy drinks. He said caffeine overdoses can produce a range of unpleasant symptoms.

"If it's something where they're feeling a little sick to their stomach and have thrown up, we'll say avoid any sources of caffeine, other stimulants, nasal decongestants, then follow up in a couple of hours," he said. "If those more concerning symptoms develop - palpitations, multiple vomiting, fast heart rate - we'd be more likely to send them (to a hospital)."

Dr. Tom Scaletta, medical director of the emergency department at Naperville, Ill.'s Edward Hospital, said the cases he has seen typically involve teens mixing energy drinks with booze.

"The thought was that they would be able to consume more alcohol because the caffeine push was keeping them awake," he said. "Then they get into the levels that are more dangerous. ... They're unarousable because of the amount of alcohol they've drank."

The federal study found that 44 percent of the [emergency room visits](#) resulted from patients combining energy drinks with alcohol or drugs. Males were more likely to pair the beverages with alcohol or illicit drugs, while females were more likely to drink them with pharmaceuticals.

Psychiatric researchers at Johns Hopkins University have suggested that the government consider greater regulation of energy drinks, saying the beverages' relatively high levels of caffeine can be troublesome for "youthful and inexperienced" consumers.

Daniel Evatt, a Johns Hopkins researcher who has studied caffeine

dependence, said warning labels might be a good idea, especially since energy drink marketing - often with images of skateboarding, BMX racing and other "extreme" sports - seems designed to appeal to young people who might not have a large tolerance for caffeine.

"Caffeine is the most commonly used psychoactive drug in the world," he said. "Many people do use it without any problems at all. But anytime you're talking about a drug, that can have problems associated with it."

Another student at Palatine, Ill's Harper College, Brad Karlson, 18, of Schaumburg, Ill., said he researches energy drinks and monitors his heart rate to be sure that his daily can of Monster Energy is safe. He's concluded that all is well.

"I'm pretty sure it gives me a little bit of a boost, but I don't (notice the effects) anymore," he said.

But the younger set skateboarding the concrete bowls of Schaumburg's Olympic Park one recent afternoon said they were well-aware of the downside of energy drinks. Some had heard stories of kids being sent to emergency rooms after chugging too many of the beverages, while others said they had tried the drinks but didn't like the taste or the jumpy aftereffects.

Though they weren't fans of energy drinks, they said the beverages should continue to be available to anyone who wants them. Said Vince Savarino, 14, of Elk Grove Village, Ill: "People need to learn how to control themselves, like anything else."

WAKING UP TO CAFFEINE

A few years ago, when Illinois Institute of Art student Alex Smyth was a hard-core competitive video gamer, caffeine was the elixir that fueled his all-night Halo rampages. He chugged a dozen energy drinks a day and never felt any ill effects, he said.

"I love caffeine," said Smyth, 21, who has since moved on to coffee. "It makes me live."

He's far from alone in his affection for the world's most beloved stimulant: In North America alone, some research has concluded, up to 90 percent of adults say they consume caffeine regularly. Yet for centuries, it has been occasionally attacked as an unhealthy - even immoral - substance.

Consider coffee, a potent caffeine delivery system. According to coffee trader and historian Antony Wild's book "Coffee: A Dark History," the beverage was first widely consumed in the 15th century by Yemeni Sufis, mystic adherents of Islam who depended on coffee to stay awake for nighttime rituals.

But by 1511, after the drink had arrived in Mecca, some had become suspicious. Kah'ir Bey, ruler of the city, banned coffee after a long debate about its spiritual purity. The decree, however, didn't last long: When the coffee-loving Ottoman empire conquered the region in 1517, Wild writes, two doctors who had supported the ban were chopped in two at the waist.

Coffee criticism, though, continued to surface in the Middle East and eventually Europe, where the drink caught on in the 17th century. In his coffee history, "Uncommon Grounds," author Mark Pendergrast writes that some Englishwomen in 1674 issued a manifesto blasting "the Excessive use of that Newfangled, Abominable, Heathenish Liquor called Coffee, which ... has so (unmanned) our Husbands and Crippled

our more kind gallants."

More challenges came in the 20th century, when caffeine became a crucial part of the nascent soft drink industry. In 1911, the federal government sued Coca-Cola for selling a beverage that contained the supposedly harmful ingredient. Ludy Benjamin, who chronicled the lawsuit for the American Psychological Association, wrote that while the company lost the case, it was not forced to remove caffeine from its product.

The U.S. Food and Drug Administration took another hard look at caffeine in 1980 and initially proposed eliminating it from soft drinks. Soda companies countered that it was a "flavor enhancer" that should be allowed, and the agency eventually agreed.

"If caffeine had not been accepted as a flavor enhancer, but had been regarded as a psychoactive ingredient, soft drinks might have been regulated by the FDA as drugs," wrote a trio of Johns Hopkins University scholars, summing up the controversy in a 2009 research paper.

In the aftermath, the FDA suggested a caffeine level for soft drinks of 0.02 percent, or 71 mg per 12 fluid ounces, the researchers said. But FDA spokesman Douglas Karas said that amounts to guidance, not a hard rule. Officially speaking, [caffeine](#) is "generally recognized as safe," and so far, the agency has not gone after energy drink makers whose beverages far exceed the 0.02 percent level.

Karas added, though, that the FDA continually monitors scientific research for signs that ingredients might be causing health problems. Asked if the agency was looking into [energy drinks](#), he declined to comment.

"We don't telegraph our actions or anything like that," he said.

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