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Living Well: Studies show the extreme risks for young consumers of energy drinks

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SPECIAL TO THE P-I

When researcher Kathleen Miller persuaded the federal government to give her nearly a half-million dollars, the plan was to study "toxic jock identity." That's her term for the "hyper-attraction" some college-level male athletes have to masculinity and high-risk behaviors such as substance abuse and violence.

As an afterthought, her questionnaire asked about consumption of highly caffeinated energy drinks such as Red Bull, Monster and Rockstar.

"I threw in a few questions about energy drinks, mostly because of what I observed in a nephew of mine. He was drinking a lot of energy drinks and suddenly becoming explosive, blowing up at his family when he was never that way before. I wondered if the caffeine was part of it," said Miller, a Ph.D. researcher at the University of Buffalo's Research Institute on Addictions.

That's because the typical energy drink contains three times more caffeine than a soda pop and sometimes up to 10 times as much. A 12-ounce Coke or Pepsi has about 34 to 38 milligrams of caffeine, while the same amount of Red Bull or Monster rings up 116 to 120 milligrams.

In comparison, an espresso shot has about 75 milligrams and 12 ounces of regularly brewed coffee has roughly 250 milligrams. One difference, though, said Miller, is coffee is usually served hot so we sip it but "energy drinks you can slam right back."

The drinks are marketed primarily to 18- to 25-year-olds -- yet increasingly used by younger teens -- and have annual sales of more than \$3 billion.

The more days in the past month a college student consumes an energy drink, the higher the probability of high-risk behavior, according to two Miller studies published this year. For example, students who consume an energy drink six or more days a month are three times more likely to smoke, abuse prescription drugs or have been in a serious fight during the previous year. Those frequent energy-drink consumers are twice as likely to experience alcohol-related problems or use marijuana, plus the energy-drink crowd will be more likely to practice unsafe sex or neglect to use a seat belt.

"This research doesn't mean the energy drinks cause the behavior," said Miller, but she does propose "frequent energy drink consumption may be a red flag or warning sign for identifying a young person at higher risk for health-compromising behavior."

Should parents be worried? Probably, and certainly more aware of the energy-drink hold on even younger people. There have been media reports of nausea, abnormal heart rhythms, profuse sweating, caffeine highs and emergency room visits at high schools and middle schools during the past academic year.

Maybe France, Turkey, Denmark, Norway, Uruguay and Iceland are onto something. These countries have all banned high-caffeine energy drinks, and Sweden only permits use with a prescription. Canada banned energy drinks until 2004 and now requires warning label cautioning against use by children or pregnant women, use in large quantities by anyone and in combination with alcohol.

What's more, Miller found two-thirds of energy drink consumers have combined energy drinks with alcohol, typically vodka, gin, whiskey or, yikes, Jagermeister.

"College kids have the misconception that you don't get a drunk with the caffeine from energy drinks," said Miller. "Their speech isn't as slurred and they have less fatigue, so they can dance until 3 but still wrap a car around a tree on the way home. And bartenders can't tell as easily who to stop serving."

Dr. Mary Claire O'Brien of Wake Forest University Baptist Medical Center has described the energy-drink cocktail effect as "you're every bit as drunk, you're just an awake drunk."

O'Brien surveyed students at 10 North Carolina universities about energy drink and alcohol trends. She published a 2007 study showing that students who mix energy drinks with liquor got drunk twice as often as those who consumed alcohol only and were far more likely to be injured or require medical attention. Energy drink users were additionally more likely to be perpetrators or victims of aggressive sexual behavior.

Miller said that she has appeared on call-in radio shows in which students have provided a range of responses from "no problem" to "horror stories."

"Some teens, as you might expect, called assuring me they drink lots of energy drink with no problems," said Miller, who has a grant proposal with the National Institutes of Health to find out where energy drinks users will be five years from now. "But other young callers talked about drinking three or four energy drinks in a row, then not being able to drive a car or feeling bad enough to go to an emergency room."

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