

## Trends in **Medical Research**

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## Non-Alcoholic Energy Drinks May Pose 'High' Health Risks, Experts Argue

Highly-caffeinated energy drinks -- even those containing no alcohol -- may pose a significant threat to individuals and public health, say researchers at the University of Maryland School of Public Health and Wake Forest University School of Medicine.

In a new online commentary in the Journal of the American Medical Association (JAMA), they recommend immediate consumer action, education by health providers, voluntary disclosures by manufacturers and new federal labeling requirements.

"Recent action to make pre-mixed alcoholic energy drinks unavailable was an important first step, but more continued action is needed," says University of Maryland School of Public Health researcher Amelia Arria, who directs the Center on Young Adult Health and Development. "Individuals can still mix these highly caffeinated energy drinks with alcohol on their own. It is also concerning that no regulation exists with regard to the level of caffeine that can be in an energy drink."

Arria and co-author Mary Claire O'Brien, associate professor of emergency medicine at Wake Forest University School of Medicine, alerted various state attorneys general to the risks of alcoholic energy drinks starting in 2009, steps that culminated last November in actions against Four Loko and similar products by the U.S. Food and Drug Administration and the Federal Trade Commission.

## Health Risks

The JAMA paper cites three public health concerns surrounding all packaged energy drinks with moderate to high levels of caffeine:

\* Consumers often mix alcohol and energy drinks: "Energy drinks have become enmeshed in the subculture of partying," the paper says. "The practice of mixing energy drinks with alcohol -- which is more widespread than generally recognized -- has been linked consistently to drinking high volumes of alcohol per drinking session and

subsequent serious alcohol-related consequences such as sexual assault and driving while intoxicated....Research has demonstrated that individuals who combine energy drinks with alcohol underestimate their true level of impairment."

- \* Caffeine can have adverse health effects in susceptible individuals: "Therefore continued public health awareness regarding high levels of caffeine consumption, no matter what the beverage source, in sensitive individuals is certainly warranted," the researchers write.
- \* Energy drink use appears to be associated with almohol dependence and other drug use: More research is needed to clarify the possible mechanisms underlying the associations that have been observed in research studies.

## Recommendations

The commentary recommends several "proactive steps to protect public health:"

- Health care professions should inform their patients of the risks of consuming highly caffeinated energy drinks;
- Individuals should educate themselves about those risks:
- Manufacturers should warn consumers about the risks of mixing their products with alcohol;
- Regulatory agencies should require energy drink manufacturers to disclose caffeine content and appropriate warnings about the risks on the labels.

**Source:** JAMA: The Journal of the American Medical Association, 2011; DOI: 10.1001/jama.2011.109