

## **WELLNESS UPDATE 2005, #5**

### **ENERGY DRINKS**

Energy drinks have become very popular among many people in recent years, including athletes. The idea is that one can hydrate and boost their energy level at the same time. For athletes who are constantly on the go, the concept of an energy drink is perceived as a perfect way to consume extra energy in a healthy way and stay hydrated. Unfortunately, energy drinks do NOT provide high quality, or long-term, energy and may be harmful. **Athletes need to understand the best form of energy comes from adequate rest and proper nutrition.** Energy drinks are NOT appropriate substitutes for sleep, food, or fluids.

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### **CARBOHYDRATES**

The energy provided by energy drinks does not come from the high carbohydrate content as much as from the stimulants found in the product. However, the high carbohydrate content can cause stomach upset and those drinks containing fructose as an energy source can cause diarrhea. **The high carbohydrate content will slow the absorption of fluid into the blood during exercise which can lead to dehydration.**

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### **OXYGEN**

Some energy drinks contain dissolved oxygen and claim this ingredient improves aerobic performance and results in lower lactic acid levels. Research shows oxygen consumed in a drink is immediately exhaled and there is no scientific support for the performance enhancing effects of oxygenated beverages.

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### **CAFFEINE**

Many energy drinks contain caffeine which can cause one to feel energized, but provides no real energy value. It is not unusual for one serving of an energy drink to contain as much caffeine as two, 12-ounce cans of caffeinated pop. Caffeine has a diuretic effect, which means it causes dehydration. **For this reason energy drinks should absolutely NOT be consumed before, or during, exercise.**

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The amount of caffeine in energy drinks may NOT always be accurately shown on the label, as many herbal ingredients (especially guarana) contain caffeine and which may not be indicated on the label. Many herbal ingredients listed on the label may NOT be recognized as containing caffeine.

**Caffeine can cause hyperactivity, irritability, anxiety and sleeplessness.** Caffeine is also addictive which means once a person begins using it, stopping may be very difficult. People with low sensitivity to caffeine, and those with a family history of heart disorders, should avoid the use of caffeine.

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### **TAURINE**

Taurine is another herbal ingredient in many energy drinks. Taurine is an amino acid that occurs naturally in the body. Amino acids help build muscle and may cleanse the body of harmful substances. The body produces the amount of taurine it needs and **there is no published research indicating supplements containing taurine have a positive effect on athletic performance.**

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### **LACK OF SCIENTIFIC EVIDENCE**

**There is little, if any, scientific evidence supporting the claims that any herbal ingredients improve athletic performance.** The herbal ingredients in energy drinks, and other nutritional supplements, are NOT regulated by the Food & Drug Administration (FDA). Therefore, there is no guarantee that all ingredients contained in a supplement are listed on the label and no guarantee all ingredients are safe. Products containing herbal ingredients are sold in a “buyer beware market.” Because of the lack of regulation, **nutrition experts have the following concerns about products containing herbal ingredients:**

- There is little or no regulatory control of these products.
- Lack of standardization and/or purity.
- Possible mislabeling of ingredients.
- Potential for serious side effects when used with prescribed medicines.

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**In summary, research indicates the risks associated with the use of energy drinks far outweigh any possible benefits the manufacturers may claim.**

Sources: “Energy Drinks: Do They Really Give You Wings?,” [Drug Info Clearinghouse](#), November 2003; “Energy Drinks: Help, Harm or Hype?,” Bonci, Leslie, MPH, RD. [Sports Science Exchange](#), Volume 15, Number 1, 2002; “Energy Drinks Pack a Punch,” Cohen, Elizabeth, CNN Medical Unit. [CNNhealth.com](#), May 29, 2001; “Energy Drinks Stir Debate,” [Intelihealth.com](#), December 21, 2001; “Ephedra and Energy Drinks on College Campuses,” Kapner, Daniel Ari. [The Higher Education Center for Alcohol and other Drug Prevention](#), April 2004; “How Good are Those Energy Drinks?,” [MedicalNewsToday.com](#), March 7, 2005; “National Athletic Trainers’ Association Position Statement: Fluid Replacement for Athletes,” Casa, Douglas, PHD, CSCS, et al. [Journal of Athletic Training](#), Volume 35, Number 2, June 2000; “Questions and Answers with the ACSM,” Smith, Bryan, MD. [American College of Sports Medicine, Fit Society Page](#), Fall 2003; “What You Need to Know About Energy Drinks,” [Sports Science Exchange Supplement](#), Volume 15, Number 1, 2002; “What’s the Buzz on Energy Drinks for Kids?,” Lallanilla, Mark. [Abcnews.go.com](#), September 26, 2005; “When Coffee Doesn’t Do It, Turn to Canned Energy,” Lowry, Vicki, [The New York Times](#), May 11, 2004.