Energy Drinks Can Trigger Cardiovascular Events

According to an article published in the Canadian Journal of Cardiology, overconsumption of non-regulated energy drinks poses risks for arrhythmias and other cardiovascular events.

An international team of researchers led by Fabian Sanchis-Gomar, PhD, MD, of the Research Institute of Hospital 12 de Octubre, Madrid, Spain believe that the rise in popularity of energy drinks (EDs) among adolescents and young adults can have serious implications for cardiac health. They focus on the pharmacology of EDs and their adverse reactions. They also suggest that the marketing of these drinks often ignore the real dangers associated with them and merely focus on the benefits such as improvement of physical and cognitive performance and relieving fatigue.

The researchers note that EDs can trigger sudden cardiac deaths in young healthy individuals. For people with underlying heart disease, the risk of sudden arrhythmic death syndrome or arrhythmias is much higher.

Approximately 31 percent of 12 to 19 year old adolescents consume EDs regularly. These drinks often contain high amounts of labelled caffeine as well as masked caffeine in the form of guarana and other substances such as ginseng and taurine. These substances in variable quantities have the potential to generate uncertain interactions.

While caffeine is generally regarded as safe and is widely used, it can cause serious side effects if consumed in large doses. With so many items readily available that contain caffeine such as energy drinks, gums, inhalers etc., there is always a risk that adolescents and young adults can overdose. Data shows that nearly 46 percent of the 5,448 caffeine overdoses reported in the US in 2007 occurred in adolescents younger than 19 years.

The researchers point out that one 250 mL can of an energy drink per day is safe for most healthy adolescents but the consumption of these drinks before or during sports practice should be avoided. They also caution that adolescents with clinically relevant underlying medical conditions should consult a cardiologist before consuming these beverages. Finally, consumption of energy drinks should not be accompanied with alcohol or other drugs as this could possibly lead to adverse effects including death.

“As ED consumption continues to grow, physicians are advised to ask adolescent patients whether they consume EDs, to be aware of the symptoms of ED overconsumption, and to discuss the dangers of EDs alone and mixed with alcohol,” explained Dr. Sanchis-Gomar. “It is important for physicians to understand the lack of regulation in caffeine content and other ingredients of these high-energy beverages and their complications so that parents and children can be educated about the risk of cardiac arrhythmias and the potential development of anxiety and phobias accompanying excessive ED consumption.”