

Energy drinks cause heart problems

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Energy drinks can cause heart problems according to research presented at ESC Congress 2014 today by Professor Milou-Daniel Drici from France.

Professor Drici said: "So-called '[energy drinks](#)' are popular in dance clubs and during physical exercise, with people sometimes consuming a number of drinks one after the other. This situation can lead to a number of adverse conditions including angina, [cardiac arrhythmia](#) ([irregular heartbeat](#)) and even sudden death."

He added: "Around 96% of these drinks contain caffeine, with a typical 0.25 litre can holding 2 espressos worth of caffeine. Caffeine is one of the most potent agonists of the ryanodine receptors and leads to a massive release of calcium within cardiac cells. This can cause arrhythmias, but also has effects on the heart's abilities to contract and to use oxygen. In addition, 52% of drinks contain taurine, 33% have glucuronolactone and two-thirds contain vitamins."

Dr Drici continued: "In 2008 energy drinks were granted marketing authorisation in France. In 2009 this was accompanied by a national nutritional surveillance scheme which required national health agencies and regional centres to send information on spontaneously reported adverse events to the A.N.S.E.S, the French agency for food safety."

The current study analysed adverse events reported to the agency between 1 January 2009 and 30 November 2012. Some 15 specialists including cardiologists, psychiatrists, neurologists and physiologists contributed to the investigation. The findings were compared to published data in the scientific literature.

The researchers found that consumption of the 103 energy drinks in France increased by 30% between 2009 and 2011 up to over 30 million litres. The leading brand made up 40% of energy drinks consumed. Two-thirds of drinks were consumed away from home.

During the two year period 257 cases were reported to the agency, of which 212 provided sufficient information for food and drug safety evaluation. The experts found that 95 of the reported adverse events had cardiovascular symptoms, 74 psychiatric, and 57 neurological, sometimes overlapping. Cardiac arrests and sudden or unexplained deaths occurred at least in 8 cases, while 46 people had heart rhythm disorders, 13 had angina and 3 had hypertension.

Dr Drici said: "We found that 'caffeine syndrome' was the most common problem, occurring in 60 people. It is characterised by a fast heart rate (called tachycardia), tremor, anxiety and headache.

Rare but severe [adverse events](#) were also associated with these drinks, such as sudden or unexplained death, arrhythmia and heart attack (myocardial infarction). Our literature search confirmed that these conditions can be related to consumption of energy drinks."

He added: "Patients with cardiac conditions including catecholaminergic arrhythmias, long QT syndrome and angina should be aware of the potential danger of a large intake of caffeine, which is a stimulant that can exacerbate their condition with possibly fatal consequences."

Dr Drici continued: "The general public need to know that so-called 'energy drinks' have absolutely no place during or after [physical exercise](#), as compared with other drinks designed for that purpose. When used in long alcoholic cocktails, the caffeine in 'energy drinks' enables young people in dance clubs or elsewhere to overcome the unwanted effects of alcohol, leading to an even greater intake of caffeine."

He concluded: "Patients rarely mention consumption of energy drinks to their doctors unless they are asked. Doctors should warn patients with cardiac conditions about the potential dangers of these drinks and ask young people in particular whether they consume such drinks on a regular basis or through binge drinking."

More information: spo.escardio.org/SessionDetail...14105&subSessId=3534

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