

Energy drinks improve heart function: study

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Consuming energy drinks can exert acute positive benefits on myocardial performance, according to research presented today at the ESC Congress by Dr Matteo Cameli from University of Siena.

"In recent years the energy drink market has exploded, with more people than ever before turning to these products as quick 'pick me ups', whether to stay awake during all night study vigils or gain the edge in



sport," said Dr Cameli. "With energy drinks containing both caffeine and taurine concerns have been raised of <u>adverse effects</u> on the heart. While caffeine increases blood pressure, studies suggest that taurine may stimulate the release of calcium from the sarcoplasmic reticulum."

In the current study the researchers used speckle-tracking echocardiography, the avant-garde technique in echocardiography, and echo Doppler analysis to explore the influence of energy drinks on <u>heart</u> <u>function</u>.

For the study 35 healthy subjects (mean age 25 years), drank a body surface area indexed amount of an energy drink (168 ml/m2) containing caffeine and taurine.

Assessments of heart rate, blood pressure, left ventricular function and right ventricular function were undertaken at baseline and one hour after consumption.

Figure 1 shows the relative changes from baseline in heart rate, blood pressure and left and right ventricular parameters one hour after consuming the energy drink. <u>Heart rate</u> increased by 1.2% (p=ns [not significant]), systolic blood pressure increased by 2.6% (p=ns) and diastolic blood pressure increased by 6% (p=0.02). Dr Cameli said: "This confirms that a standard energy drink consumption induces a light increase in diastolic <u>blood pressure</u>."

Left ventricular function improved in comparison to baseline. <u>Ejection</u> <u>fraction</u> increased by 5% (p=0.01), mitral annular plane systolic excursion (MAPSE) (which evaluates longitudinal ventricular function) increased by 11% (p

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