

Media Release

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One energy drink dangerous for some, study finds

A world-first study has found that having just one to two energy drinks could be life-threatening for some young people with no known history of heart disease.

The study found that people born with a genetic cardiac rhythm disorder called Long QT Syndrome are at higher risk of dangerous heart rhythms or even death after consuming energy drinks.

About one in 2000 people has Long QT Syndrome but many are unaware until they undergo an ECG or a relative dies suddenly at a young age. For some patients with Long QT Syndrome, the first symptom is sudden cardiac death.

The study, published in the *International Journal of Cardiology*, was conducted at Royal Prince Alfred Hospital in Sydney over two years and involved 24 people with Long QT Syndrome aged between 16 and 50.

Patients were given energy drinks or control drinks over a 90 minute period, while undergoing continuous monitoring as well as regular ECGs and blood samples.

“We found patients had a significant increase in their blood pressure of more than 10 per cent after the energy drinks, which was not seen in the control group.

“Additionally, while none of the patients in the study experienced dangerous arrhythmias, we did identify dangerous ECG changes in some patients; 12.5 per cent of patients showed a marked QT prolongation of 50 milliseconds or more,” Royal Prince Alfred Hospital cardiologist and Centenary Institute researcher Dr Belinda Gray said.

“For ethical reasons, we could only give patients in this study low doses of energy drinks but, the reality is, many young people will consume four or more energy drinks with alcohol in one evening. These drinks are widely available to all young people.”

Professor of Medicine at the University of Sydney and RPA cardiologist Chris Semsarian said it was still unknown whether a specific ingredient in energy drinks was responsible for ECG changes, or a combination of ingredients.

“But, because many young people do not even know they have familial Long QT Syndrome, we have to caution against anyone consuming these drinks.”

While small, the study was robust as the patients acted as their own controls with each consuming both energy and control drinks on separate occasions with at least one week washout, Professor Semsarian said.

The study was supported by a grant from The Heart Foundation.

“People donate to the Heart Foundation because they want us to fund research such as this, which make advancements in the fight against heart disease,” said Chief Executive Officer and Adjunct Professor John Kelly.

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For interviews with Dr Belinda Gray or Professor Chris Semsarian,
please call **0409 243 544**.