

# Energy drink abuse highest among teens

January 19 2012, By Helena Bogle

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The study shows the trend of misuse and toxicity appears to be increasing among teenagers; out of the 217 callers who were classified as recreational users, the median age was 17 years. Credit: Tambako

(Medical Xpress) -- A recent study has revealed a dramatic increase in the number of calls to a poisons hotline relating to caffeine toxicity from energy drink consumption.

And according to the research published in [Medical Journal of Australia](#), the trend is largely among [teenagers](#).

A study, by NSW Poisons Information Centre medical director Dr. Naren Gunja and coauthor Jared Brown, was conducted over a seven year period and found that callers reported 297 exposures to energy drinks, with the annual trend increasing from 12 in 2004 to 65 in 2010.

The study shows the trend of misuse and toxicity appears to be increasing among teenagers; out of the 217 callers who were classified as recreational users, the [median age](#) was 17 years.

“Adolescents are unaware of the dangers [of energy drinks] and most people are unaware of the ill effects of mixing energy drinks with alcohol,” Dr. Gunja says.

According to the research, popular energy drinks Red Bull and V account for over 97 per cent of energy drinks sales (which is 20 per cent of the total convenience store beverage market) and the number of energy drink units ingested far exceeds recommended maximum levels.

Most energy drinks contain varying amounts of [caffeine](#), guarana extract, taurine and ginseng, with additional amino acids, vitamins and carbohydrates.

But Dr. Gunja says adverse reactions and toxicity from high-energy drinks can be attributed to the caffeine content, which is typically around 300mg per can.

Guarana, also contains caffeine (about 40–80mg per extract) but is additional to the listed caffeine content of energy drinks and is not always declared on packaging.

“Consumers are likely to be unaware of the variation in chemical composition and caffeine dosage in energy drinks, and with little or no warnings on products, the potential for overdose remains ever-present.”

The study revealed the most common symptoms included heart palpitations, agitation, tremor and gastrointestinal upset, but there were also signs of serious cardiac or neurological toxicity, such as hallucinations, seizures and cardiac ischaemia.

Dr. Gunja says a major reason behind the increase in reports of caffeine [toxicity](#) was due to marketing; in 2009, the energy drink industry spent nearly \$15 million on marketing in Australia.

“Manufacturers pitch their product to athletes, students and people in professions that require sustained alertness,” the research says.

“Young adults and adolescents are particularly attracted to [energy drinks](#) because of the effective product marketing, peer influence and a lack of knowledge of the potential harmful effects.”

Provided by ScienceNetwork Western Australia

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