

ENERGY DRINKS - DO WE REALLY NEED ALL THE EXTRA STUFF?

Cutting to the chase:

Most of the evidence currently available would suggest the most beneficial component in these energy drinks relating to cognitive and physical performance is the caffeine component.

More information

As we know energy drinks contain caffeine and in varying amounts depending on the brand you get. For example Red Bull® provides 80mg in a 245ml volume and another called Cocaine® (honestly the names of some of these drinks is just scary) provides 280mg per 248ml.

To help put that into perspective a cup of instant coffee (although this can vary significantly depending on many factors) typically may contain 60mg caffeine (range could be 10 – 170mg).

Along with the caffeine in these energy drinks is a bundle of other components. The most common components typically in energy drinks are: guarana, taurine, glucuronolactone, B group vitamins, ginseng and some others like carnitine, milk thistle. Apparently these components are meant to provide an extra bang for your buck... with many claims being made relating to each.

Often you see energy drinks claiming that they provide cognitive and physical performance advantages. Well we know caffeine provides this ergogenic effect. So yes okay energy drinks can provide a cognitive and physical performance edge – they contain caffeine. But do we need these other components in energy drinks? Do they help provide these cognitive and physical performance benefits? Or is it just the caffeine we desire?

Lets look at the research

A literature search was conducted and found 32 articles looking at the effects of components found in energy drinks, on cognitive and physical performance either alone or in combination with caffeine. A systematic evaluation of the evidence taken from these articles found:

There is currently a significant lack of evidence substantiating claims often made by energy drinks about these components providing a cognitive and/or physical performance benefit (McLellan and Liberman, 2012).

Further good quality research is needed in order to identify whether these components in energy drinks provide any benefit. Until then the evidence does not look promising.

Facts

- In 2010 the Energy Drink market represented \$6.7 billion industry

- Adolescents and young adults < 35 yrs make up 50 % of the energy drink consumer market
- The Australian Foods Standards Code allow cola drinks to contain caffeine at a maximum level of 145 mg/L.
- Energy drinks, are known in the code as Formulated Caffeinated Beverages, they can contain caffeine from all sources e.g. caffeine and guarana of up to 320 mg/L. Caffeine content must be stated on product labels of energy drinks.
- The Food Standards Code in Australia provides greater regulation of caffeine-added products than in other countries.
- When caffeine is consumed by adults in low to moderate amounts it is generally considered safe. There is greater risk associated with caffeine use in children. It is suggested that children < 12 y limit caffeine intake to < 2.5 mg/kg/d
- Caffeine can provide performance benefits but it is important to appreciate that there are responders and non-responders to caffeine intake and some respond negatively.

If you choose to consume energy drinks be smart about it. Monitor your intake and know the potential effects of consuming the product in the quantity that you choose.

By Sports Dietitian/Nutritionist Steph Gaskell
Nutrition Strategies, T: 1300 88 65 44

References

McLellan MT and Lieberman RH. Do energy drinks contain active components other than caffeine? Nutrition Reviews, Vol. 70 (12), 730-744

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