

## Outcomes of the expert discussion "Potential Effects of Caffeine on the Cardiovascular System of Children and Adolescents"

BfR Communication No 018/2017 of 9 August 2017

On 26 April 2017, the German Federal Institute for Risk Assessment hosted an expert discussion in Berlin on the possible effects of caffeine on the cardiovascular system of children and adolescents.

The objective of this expert meeting was to discuss whether and to what extent high long-term intake of caffeine by children and adolescents, taking into consideration dose-response relationships, may contribute to the occurrence of cardiovascular diseases. The meeting was attended by experts from the fields of paediatric cardiology, toxicology, pharmacology, epidemiology and nutritional medicine as well as representatives of the Robert Koch Institute (RKI), the Federal Ministry of Food and Agriculture (BMEL) and the Federal Centre for Nutrition (BZfE). Presentations followed by a discussion outlined the current knowledge and insights on this topic.

There was agreement that there are currently no studies available that have investigated the possible connection between high long-term caffeine intake (also in the form of energy drinks) and long-term effects on the heart and the circulatory system in children and adolescents. It was further established that there is a significant lack of data in this area, but that efforts to close this information gap are associated with major methodological difficulties.

The BfR has already been outlining the potential health risks of excessively high consumption of energy drinks by children and adolescents for a number of years. In view of the already known acute effects of caffeine, excessive consumption of energy drinks resulting in caffeine intake levels above those that are considered safe for children and adolescents could have negative impacts on the cardiovascular system of children and adolescents.

The BfR recommends to minimize this identified potential health risk to children and adolescents. This could take the form of targeted information and education measures and/or, where necessary, additional measures designed to counteract the excessive consumption of energy drinks, in particular among children and adolescents.

### More information on the BfR website on the topic of caffeine

A-Z Index of the BfR on caffeine

[http://www.bfr.bund.de/en/a-z\\_index/caffeine-129927.html](http://www.bfr.bund.de/en/a-z_index/caffeine-129927.html)

"Frequently asked questions on caffeine and foods containing caffeine including energy drinks", BfR FAQ of 23 July 2015

[http://www.bfr.bund.de/en/frequently\\_asked\\_questions\\_on\\_caffeine\\_and\\_foods\\_containing\\_caffeine\\_including\\_energy\\_drinks-194902.html](http://www.bfr.bund.de/en/frequently_asked_questions_on_caffeine_and_foods_containing_caffeine_including_energy_drinks-194902.html)

"Gesundheitliche Risiken durch den übermäßigen Verzehr von Energy Shots" (Health risks resulting from the excessive consumption of energy shots), BfR Opinion No. 1/2010 of 2 December 2009 (German only)

[http://www.bfr.bund.de/cm/343/gesundheitliche\\_risiken\\_durch\\_den\\_uebermaessigen\\_verzehr\\_von\\_energy\\_shots.pdf](http://www.bfr.bund.de/cm/343/gesundheitliche_risiken_durch_den_uebermaessigen_verzehr_von_energy_shots.pdf)

"Neue Humandaten zur Bewertung von Energydrinks" (New human data on the assessment of energy drinks), BfR Information No. 16/2008 of BfR 13 March 2008 (German only)  
[http://www.bfr.bund.de/cm/343/neue\\_humandaten\\_zur\\_bewertung\\_von\\_energydrinks.pdf](http://www.bfr.bund.de/cm/343/neue_humandaten_zur_bewertung_von_energydrinks.pdf)



"BfR Opinion App"

The full version of this BfR opinion is available in German on:

<http://www.bfr.bund.de/cm/343/ergebnisse-des-expertengespraechs-moegliche-koffeinwirkungen-auf-das-herzkreislaufsystem-von-kindern-und-jugendlichen.pdf>

### About the BfR

The Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. It advises the Federal Government and Federal Laender on questions of food, chemical and product safety. The BfR conducts its own research on topics that are closely linked to its assessment tasks.

*This text version is a translation of the original German text which is the only legally binding version.*