

## **COMMITTEE ON TOXICITY OF CHEMICALS IN FOOD, CONSUMER PRODUCTS AND THE ENVIRONMENT**

### **Statement on the potential risks from “energy drinks” in the diet of children and adolescents.**

#### Lay Summary

1 Highly caffeinated soft drinks (known as “energy drinks”) have become widely popular since their introduction in Austria in 1987. Drinks that contain 150 milligrams (mg) or more of added caffeine per litre are required by EU law to display the warning: “High caffeine content. Not recommended for children or pregnant or breast-feeding women”. In addition, the amount of caffeine in mg per 100 ml of drink must appear on the can.

2 Recently, media have drawn attention to concerns that the free access by children and adolescents to “energy drinks” may be detrimental to their health and may cause “problem behaviour”, particularly in school. Several major retailers have voluntarily restricted the sale of “energy drinks” to try to reduce their consumption by individuals under 16 years old.

3 The British Soft Drinks Association, the trade body for soft drink manufacturers, produced a Code of Practice in 2015, laying down rules for the labelling and the responsible marketing of “energy drinks” to the effect that consumers are aware of the potential effects of drinking these products and that the exposure of school-age children to related advertising is kept to a minimum.

4 Government is now considering a legal ban on the sale of “energy drinks to children rather than a voluntary agreement.

5 In the light of these concerns, the COT was asked to examine the issue of “energy drinks” to determine whether there is scientific evidence that adolescents are particularly sensitive to their ingredients or are more likely than adults to drink them in excess and thus suffer ill effects.

6 In addition to caffeine, “energy drinks” may contain a variety of other ingredients such as taurine (a type of amino acid found naturally in the body), glucurono-gamma-lactone ( a glucose-like compound produced normally in the body) and extract of guarana (a plant with coffee-like stimulant properties). However, the substance largely responsible for their stimulant effect is caffeine, which is also found in coffee, tea and chocolate. Levels of caffeine vary, depending on the brands involved, but some brands of coffee from high street coffee shops contain more caffeine per serving than that commonly found in some “energy drinks”.

7 Caffeine acts at various sites in the nervous system and initially increases alertness but large amounts can cause nervousness, sleeplessness and an upset stomach. Very large amounts can be fatal but to reach this level of intake voluntarily is very rare and is usually a consequence of taking caffeine in tablet or powder form.

8 Caffeine consumption increases blood pressure and may not be advisable for people with underlying heart and circulatory conditions. Caffeine has well-documented effects on sleep and may lead to daytime sleepiness, through sleep deprivation, and reduced mental and physical performance.

9 The major brands of “energy drinks” (and many “soft” drinks) are marketed in different varieties, which often contain large amounts of sugar, but there are now “light” and sugar free versions available. There is a new tax on beverages containing more than 5 g of sugar per 100 millilitres (ml). Manufacturers must now reformulate their products or pay the duty and thence possibly absorb the cost or pass it on to the consumer. High sugar intake is related to the development of obesity and type-2 diabetes. There is little evidence for any additional stimulant effect due to the presence of caffeine and sugar together.

10 Adolescents are known to consume “energy drinks” and consumption is influenced by various factors, including taste, the stimulant effect, peer pressure and degree of adult supervision. Social factors and the effects of normal brain development in adolescence confound the interpretation of studies investigating the effects of “energy drinks” on adolescent behaviour.

11 People who consume “energy drinks” in combination with alcohol have been reported to be at an increased risk of “risky” behaviour, such as drink-driving, fighting and unsafe sex. In the UK it is illegal for retailers to sell alcohol to people under 18 years of age, although under-age drinking still occurs and causes problems even without the addition of “energy drinks”.

12 Overall the consumption of “energy drinks” by children and adolescents is a complex social issue. The acute effects of the main active constituents of “energy drinks”, caffeine and sugar, are well documented, while those of other ingredients are either negligible or reported inconsistently. New legislation should reduce the amount of sugar in “energy” and “soft” drinks. Only a small proportion of children and adolescents admit to “energy drink” use at levels likely to cause them problems. Although the effects of regular long-term consumption of these drinks are unknown, children and adolescents have long consumed caffeine and its breakdown products in tea, coffee, cola and chocolate. The natural behavioural development of adolescents may contribute to the behaviour that has been attributed to “energy drink” use.

The full statement can be found here:

<https://cot.food.gov.uk/sites/default/files/cotenergydrinksstatement.pdf>