

EDITORIALS

Ban on sale of energy drinks to children

It's time to legislate

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“Not recommended for children.” This is the warning on every can of energy drink sold in the UK that contains 150 mg or more of caffeine per litre. But when should a product warning turn into legislation? That's the debate currently taking place after recent government proposals to ban the sale of caffeinated energy drinks to children and young people in England.

The announcement, quite understandably, has sparked much discussion, with the usual “nanny state” debate and questions raised about whether these choices are best left to parents. The truth is there is some evidence that caffeinated energy drinks may be harmful to children and young people. However, more robust debate is needed to make a decision that leads to legislation, and this consultation provides opportunity for that.

So what do we know about caffeinated energy drinks? Such drinks are essentially a combination of sugar and caffeine, although some contain non-sugar sweeteners and amino acids. Caffeine is, of course, a stimulant for the cardiovascular and central nervous systems, providing a synthetic analogue of “energy”—with the high glucose content of caffeinated energy drinks providing the metabolic energy source.

Little evidence exists, however, that such drinks provide needed “energy.” Children and young people in high income countries such as the UK consume more sugar and calories than required¹—they are therefore unlikely to need additional energy. Indeed, the high sugar content in many energy drinks (up to 108 g/L or 27 g/250mL, with servings often as much as 500 mL) undoubtedly contributes to the overall calorie excess and resultant obesity epidemic among our children. Conversely, there are reports that young people with eating disorders use sugar-free caffeinated energy drinks for their stimulant effects.

Safety concerns

Caffeine is probably the most commonly used psychoactive drug across the world; it increases activity and heightens attention and awareness. Caffeinated energy drinks commonly contain at least 320 mg/L of caffeine, or 160 mg in a 500 mL serving. But caffeine also increases anxiety, reduces sleep, is linked with behavioural problems in children, and may have concerning effects on the developing brain.²

Surprisingly little is known about the safety profile of caffeine. The European Food Safety Authority noted that insufficient

information exists to derive a safe caffeine intake but that data suggested important safety concerns at doses of >3 mg/kg body weight.³ This implies that a single 250 mL can of energy drink providing 80 mg caffeine does not have safety concerns in children weighing >30 kg (roughly, those older than 10 years).

Yet real concerns exist about the effects of caffeine even at the small doses deemed “safe” for the cardiovascular system. Evidence is emerging that consumption of caffeinated energy drinks among children and young people is associated with anxiety, depression, sensation seeking, poorer executive function, and increased hyperactivity and inattention.⁴ These manifest as increased psychological distress, poor behaviour, risky behaviours (such as substance use^{4,5}), and poorer academic attainment in maths and English.⁶ Perhaps most concerning are the effects on sleep—a clear inverse association has been established between consumption of caffeinated energy drinks and sleep duration.^{4,7}

Use of caffeinated energy drinks has grown rapidly since their introduction in the late 1990s. In a 2014 survey of over 5000 children in England 14% of 11-15 year olds reported consuming such drinks at least two to four times a week, and 5% of all young people reported drinking energy drinks daily.⁸

This increase is almost certainly a result of marketing campaigns promoting unlocking hidden energy and low pricing—as low as 10p per 100 mL. Although the industry claims that marketing is not aimed at children younger than 16 years (which the voluntary industry code expressly forbids),⁹ the imagery in energy drink advertising and drink names are likely to be highly attractive to youngsters.

Effects on wellbeing

So-called energy drinks have no clear benefits in terms of energy, and evidence is growing of important effects on behaviour and mental wellbeing for children and young people. For our young people, in the middle of an apparent epidemic of mental health problems and low energy,⁸ energy drinks can appear to be a cheap and quick fix for fatigue and worries in life. Yet high caffeine intake leads to fatigue and increased anxiety.

These concerns must drive a search for improved evidence, but I believe there is now sufficient evidence to act to protect children. When the twin epidemics of obesity and mental health problems stalk the land, we cannot afford to allow marketing to drive consumption of new products likely to worsen obesity and the wellbeing of our children. Humans get energy from a good diet, refreshing sleep, exercise, and, most importantly, from our interactions with other people.

Many UK supermarkets have now banned the sale of caffeinated energy drinks to under 16s, and several countries have bans in place. At the Royal College of Paediatrics and Child Health we support restriction of the sale of energy drinks to under 16s alongside an evaluation of the effect that these policies have on young people's purchasing habits, and their health.

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