Department of Health and Social Care: Consultation on ending the sale of energy drinks to children

Response submitted by the Royal College of Paediatrics and Child Health

November 2018

This consultation seeks views on a proposed ban on selling energy drinks to children as part of 'Childhood obesity: a plan for action, chapter 2'.

More information is available on the gov.uk website

1. Should businesses be prohibited from selling high-caffeine energy drinks to children?

Yes

There is no evidence that caffeine and other stimulant substances contained in energy drinks have any benefit or place in the diet of children and adolescents. Children get energy from a good diet, refreshing sleep, exercise, and positive interactions with others. Energy drinks have no clear benefits in terms of providing energy, and evidence is growing of important negative effects on behaviour and mental wellbeing for children and young people. In the absence of evidence that energy drinks are safe for consumption by children, RCPCH firmly believe that we must adopt the precautionary principle in order to prevent harm, and that the sale of energy drinks to children should therefore be prohibited.

Energy drink consumption by young people has been repeatedly found to be associated with higher rates of risk seeking behaviours such as smoking, alcohol and other substance use, poor mental health, adverse cardiovascular effects and physical symptoms such as headaches, stomach aches, hyperactivity and insomnia. In a small-scale survey conducted with teachers, 90% report hyperactivity and difficult behaviour as effects observed following energy drink consumption by children[1]. These known associations and concerns must drive a search for improved evidence where possible.

We acknowledge that there are limitations in the current evidence base, with a reliance on associations demonstrated in cross sectional studies and small study populations. However, causative effects of energy drinks on children and young people could not be established without randomised control trials, which would be highly unethical. Therefore we must use the best available evidence, and in the absence of studies to demonstrate that these drinks are safe for consumption by children, we have a responsibility to protect them.

In particular, RCPCH are concerned that little is known about the safety profile of caffeine and aware that concerns exist about the effects of caffeine even at the doses deemed safe

[1] RCPCH 2018. Results available on request.

in terms of 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.[2],[3] These manifest as increased psychological distress, poor behaviour, risky behaviours (such as substance use)[4], and poorer academic attainment in maths and English.[5] Perhaps most concerning are the effects on sleep—a clear inverse association has been established between consumption of caffeinated energy drinks and sleep duration.[6]

Energy drinks are a combination of multiple ingredients, including caffeine, sugar and/or sweeteners and amino acids. While there is a lack of evidence for the effects of caffeine and amino acids on children, there is a plethora of evidence with regards to the effect of sugar. It is well-known that children and young people in the UK consume more sugar and calories than required[7], and therefore they do not require the additional metabolic energy provided by the sugar present in caffeinated energy drinks. As with other beverages with a high sugar content, consumption of energy drinks has been shown to be associated with adverse metabolic, dental and renal effects, including overweight and obesity, dental decay and kidney disease.[8]

Energy drink consumption also has major implications for oral health. Tooth decay remains the number one reason why children age 5-9 are admitted to hospital, and nearly half of 15-year olds have some form of tooth decay.[9] Carbonated drinks, both sugar-free and those containing sugar, can lead to enamel erosion, and research has linked the high acidity of these drinks to incidence of dental carries.[10]

RCPCH firmly believe that there is sufficient evidence to act now to protect children. With the twin epidemics of obesity and mental health problems, we cannot afford to allow continued growth in consumption of products shown to worsen obesity and the wellbeing of our children.

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[2] Curran CP, Marczinski CA Taurine, caffeine, and energy drinks: reviewing the risks to the adolescent brain. Birth Defects Res2017;109:1640-8. doi:10.1002/bdr2.1177 pmid:2925184

[3] Dawodu A, Cleaver K Behavioural correlates of energy drink consumption among adolescents: review of the literature. J Child Health Care2017;21:446-62.

[4] Scalese M, Denoth F, Siciliano V, et al. Energy drink and alcohol mixed energy drink use among high school adolescents: association with risk taking behavior, social characteristics. Addict Behav 2017;72:93-9.

[5] Smith AP, Richards G. Energy drinks, caffeine, junk food, breakfast, depression and academic attainment of secondary school students. J Psychopharmacol2018;32:893-9

[6] Sampasa-Kanyinga H, Hamilton HA, Chaput JP. Sleep duration and consumption of sugar-sweetened beverages and energy drinks among adolescents. Nutrition2018;48:77-81

[7] Public Health England. National diet and nutrition survey: results from years 5 and 6 (combined) of the rolling programme (2012/2013–2013/2014), 2016.

[8] Al-Shaar, Laila et al. "Health Effects and Public Health Concerns of Energy Drink Consumption in the United States: A MiniReview." Frontiers in Public Health 5 (2017): 225. PMC. Web. 3 Apr. 2018.

[9] NHS Digital. Child Dental Health Survey 2013, England, Wales and Northern Ireland. https://digital.nhs.uk/data-and-information/publications/statistical/children-s-dental-health-survey/child-dental-health-survey-2013-england-wales-and-northern-ireland

[10] Morgan, MZ, Broughton, D, Fairchild, RM (2016) A survey of sports drinks consumption amongst adolescents. British Dental Journal. 220, 639 – 643.

2. Are there any other approaches that you think should be implemented instead of, or as well as, a prohibition on sales of energy drinks to children, in order to address the issue of excess consumption of energy drinks by children?

Yes

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.[11] Continued growth in consumption means that a the proposed ban on sale will need further reinforcement through additional action on marketing and advertising, education and labelling in order to protect as many children as possible.

It is important to note that RCPCH fully support the prosed ban on the sale of energy-drinks to children and that the following measures should be considered in addition in order to offer maximum protection to children.

Marketing and advertising: The marketing and price of energy drinks is of considerable public health concern. Although the voluntary industry code expressly forbids marketing of energy drinks to under 16s, the imagery in energy drink advertising and the drink names themselves are known to be highly attractive to youngsters. During our own consultation with children and young people on how energy drinks make them feel, on a number of occasions the response "like I want one now I've seen the picture" was given.[12]

Research has demonstrated that there is a clear link between the food and drink adverts children see, their food and drink choices and how much they eat, with children being particularly vulnerable to brand recognition and preference from as early as 18 months of age.[13],[14] A recent report from Cancer Research UK has shown that children are 2.5 times more likely to consume energy drinks after seeing an energy drinks advert.[15] We know that at least 50% of children's viewing takes place in adult air time, when energy drinks adverts can be shown, and this is why RCPCH are continuing to call for a 9pm watershed on all adverts for food and drink high in fat, sugar and salt as the most effective way to reduce children's exposure to food and drink marketing.[16] We would also recommend that this is extended to limits on sponsorship opportunities for energy drinks companies for activities that have a high profile among children, including sports.

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[11] Brooks F, Magnusson J, Klemera E, et al *HBSC England national report 2014.* University of Hertfordshire, 2015.

[12] RCPCH Roadshow Review data, 2018. Available on request.

[13] Public Health England (October 2015). Sugar Reduction: the evidence for action. https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action

[14] Robinson TN, Borzekowski DLG, Matheson DM, Kraemer HC. Effects of Fast Food Branding on Young Children's Taste Preferences. *Arch Pediatr Adolesc Med.* 2007;161(8):792–797. doi:10.1001/archpedi.161.8.792

[15] Cancer Research UK. 10 years on: new evidence on TV marketing and junk food consumption amongst 11-19-year olds 10 years after broadcast regulations (Jan 2018). https://www.cancerresearchuk.org/sites/default/files/10_years_on_full_report.pdf

[16] Obesity Health Alliance. A Watershed Moment. 2017. http://obesityhealthalliance.org.uk/wp-content/uploads/2017/11/A-Watershed-Moment-report.pdf

Education: RCPCH firmly believe that there should be national awareness raising of the health effects associated with energy drinks, particularly in relation to children. As part of this we would recommend an all-age campaign to raise awareness of the amounts of caffeine present across different caffeinated beverages. We know from the 198-young people we spoke to that there is confusion here about what they are consuming, with only 47% correctly identifying that a 250ml can of red bull contains more caffeine (80mg) than a 237ml Starbucks cappuccino (75mg).[17] As part of the recently announced statutory health education in primary and secondary schools, children should be taught about the associations between what they are consuming and their health and behaviour as part of the curriculum on healthy diets. This should be reinforced through the building of more general skills in critical appraisal to support and promote informed decision making.

Branding and labelling: Despite clear labels to warn that many energy-drinks are "not suitable for children", sales and consumption of energy-drinks to 10-17 year olds has continued to grow (185% between 2006 and 2015)[18]. We would support clearer labelling of all caffeinated drinks to indicate the amount of caffeine alongside the recommended levels for consumption in order to support informed decision making.

Price and promotion: We know that both the price and the placement of unhealthy food and drinks in convenient or busy locations in shops can encourage shoppers to buy more of those products. In the upcoming consultation on location-based promotions, we will be recommending that the government should restrict the placement of unhealthy food and drinks in high profile places in supermarkets to help families make healthier choices when shopping. This includes energy drinks.

Recent qualitative research looking specifically at children's perception of energy drinks in the UK found that purchasing decisions were influenced by the relatively low price of many energy drinks and their widespread availability, with gendered branding also having an important role (specifically, the use of sport sponsorship deals and images of women in advertisements).[19] This was supported by our own research among young people, where low price and ease of availability were frequently cited as reasons why energy drinks were chosen, including over other drinks. Energy drinks are frequently priced much lower than other drinks that are popular with children, including fizzy drinks. We would recommend the government considers a minimum price point for energy drink sale and promotions as part of a package to support the introduction of the ban.

[17] RCPCH Roadshow Review data. Available on request.
[18] British Soft Drinks Association data
[19] Visram S, Crossley SJ, Cheetham M, Lake A (2017) Children and young people's perceptions of energy drinks: A qualitative study. PLoS ONE 12(11): e0188668. https://doi.org/10.1371/journal.pone.0188668

3. Which age limit would be most appropriate for a prohibition on sales of energy drinks to children?

16 years old

RCPCH believe restricting the sale of energy drinks should apply to under 16s. We believe that an age 16 threshold is the best balance between protection and recognising young people's rights and the transition into adult cultural habits.

One of the RCPCH's strategic aims is to consult, involve and work with children and young people to ensure that their voice informs and influences RCPCH activity. This supports the UN Convention of the Rights of the Child Article 12 (right to be heard) and the principle of "no decision about me without me". Therefore, to inform our response to this consultation and indeed to this question, RCPCH consulted with almost 200 (198) young people from the ages of 11-25.[20] Two-thirds of those who commented on this question felt that energy drinks should be banned for under 16s, with the remaining one-third opting for under 18s.

We recognise that at age 16, young people are able to make certain choices for themselves. RCPCH firmly believes that we should be supporting young people to make the right choices and decisions to support their health from an early age, and that this should be reinforced through health education lessons at school. Skills development, including communication skills, managing failure and problem solving, emotional regulation, help-seeking and healthy coping, should all be incorporated into education from an early age. In particular, there needs to be a focus on how to critically appraise information to inform decision making.[21] An extensive body of evidence indicates the importance of intervening early with regards to improving health related behaviours and setting preferences, and we believe that the focus should be on protecting younger children from these harms at an early stage.

We recognise that having a ban at age 16 may pose challenges for retailers and schools in implementation. However, we are encouraged by the large number of major retailers that are already voluntarily imposing a ban on the sale of energy drinks to under 16s, and believe that legislation will only make this easier for them to enforce. As with many other items known to cause disruption in the classroom, we would recommend that the government supports schools in implementation of a ban on energy drink consumption on the school premises.

[20] RCPCH Roadshow Review data. Available on request.

[21] RCPCH. Response to Department for Education Consultation on Relationships Education, Relationships and Sex Education and Health Education. November 2018. https://www.rcpch.ac.uk/sites/default/files/2018-11/rcpch_response_to_consultation_on_relationships_education_relationships_and_sex_education_and_health_education_-_final.pdf

4. Should a prohibition on sales of energy drinks to children apply to any drink that contains over 150mg of caffeine per litre, except coffee and tea?

Yes

RCPCH believes it is important for the Government to adopt a clear definition of an energy drink. Colleagues in Lithuania, who have already adopted a ban on the sale of energy drinks to children, have adopted the following definition: 'Energy drink' shall mean a non-alcoholic beverage containing caffeine, from whatever source, in a proportion in excess of 150 mg/l or caffeine in a proportion in excess of 150 mg/l in presence with one or more substances which stimulate the central nervous system (glucuronolactone, inositol, guarana alkaloids, ginsenosides, ginkgo extract, taurine, etc.). Energy drinks may also contain carbohydrates, vitamins, minerals, amino acids, food additives, fruit juices and plant extracts" which we would support.

We acknowledge comments that have been made previously with regard to the consumption of similar levels of caffeine in coffee and tea as in many energy drinks. As stated in our answer to Q2, RCPCH would support clearer labelling of all caffeinated drinks to indicate the amount of caffeine alongside the recommended levels for consumption.

However, we are aware that there is growing consumption of energy drinks among children, and these trends are not replicated in their tea and coffee drinking. The rise in consumption of energy drinks is of particular concern to the RCPCH, given the lack of evidence of their effect on children.

There are considerable differences between coffee, tea and energy drinks that offer great cause for concern with regard to children. As is clear from the definition given above, energy drinks contain a mixture of multiple ingredients, and are usually carbonated. Some of these ingredients have a known impact on children's health, as stated in our previous answers to questions 1 and 2. Where the impact of ingredients is not known, RCPCH would fully support the Government in taking a precautionary approach in order to protect children.

Although we acknowledge that energy drink marketing cannot be targeted directly to children, energy drinks are marketed in a way that coffee and tea are not. We know from speaking to almost 200 young people that the imagery and naming used in energy drink branding and advertising is a top reason for their choice in consuming them.[22] Given these associations and concerns relating to energy drinks, we fully support the government in taking action to protect children with a ban on their sale.

RCPCH would welcome further research into the consumption of heavily caffeinated products by children and would suggest the government remains open and committed to reviewing the evidence base as part of the ongoing impact assessment of a ban on the sale of energy drinks to children.

[22] RCPCH Roadshow Review data. Available on request.

5. Should a prohibition on sales of energy drinks to children apply to all retailers who operate in England, including online businesses and the out-of-home sector (cafes, restaurants, takeaways and so on)?

Yes

In order for a ban to be effective it should apply to all food and drink sales outlets, including online sales and restaurants. In a clear commitment to improving the health of all children, RCPCH would also recommend that the ban on sales of energy drinks to children includes all healthcare premises.

6. Should children be prevented from buying energy drinks from vending machines?

Yes
(no free text box to explain)

7. If children are prevented from buying energy drinks from vending machines, how should this be done?

a. All sales of energy drinks from all vending machines should be prohibited, regardless of the age of the person buying them.
b. Sales of energy drinks from vending machines should be subject to age restrictions, to be enforced by the businesses or organisation on whose property the vending machine is located.
c. All sales of energy drinks from vending machines should be prohibited in specific locations with high child footfall, for example educational establishments, sports centres and youth centres.
d. Other approach (please give details of the approach you are suggesting).

Option B
(no free text box to explain)
(We are aware vending machines are an alternative method of sale for energy drinks to children. We support Option b - Vending machines should have age restrictions enforced by the location (eg the shop) or should only be located in venues where there are age restrictions for entry. If it is not possible for a location to restrict sale from vending machines by age then energy drinks can't be located in their vending machines.)

8. If the sale of energy drinks to children is prohibited, would 12 months be an appropriate implementation period for all businesses?

Yes

The implementation period should be no longer than 12 months. We recommend that a longer implementation period is not required as the ban to sales of energy drinks does not require any product reformulation. It is expected and accepted that longer

implementation periods may be required for the introduction of other measures to restrict energy drinks sales, including education campaigns and marketing restrictions.

Questions 9-12 are for businesses selling energy drinks

13. If you have any suggestions for how this requirement could be enforced in a way that is fair and not overly burdensome, please provide details.

RCPCH are not best placed to state how the ban should be enforced.

14. If you have any further evidence or data you wish to submit for us to consider for our final impact assessment, please provide it here.

We have included here a list of the evidence sources that are referenced throughout our submission.

Question 15 is for businesses selling energy drinks

16. Are there any other potential impacts of restricting the sale of energy drinks to children that you think we should consider?

Yes

We would recommend that the Government monitor for any unintended impacts of the ban, including potential substitution of energy drinks for other highly caffeinated or high sugar products.

17. Do you think that this proposal would be likely to have an impact on people on the basis of any of the following characteristics?

Age // Sex

This proposal would have an impact in relation to age, given its age-specific nature. There is also some evidence that boys may be affected more than girls, given the reported gendered use of energy drinks – it is reported that the most common users of energy drinks are males.

18. Do you think this proposal would help achieve any of the following aims?

- Eliminating discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010
- Advancing equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.

- Fostering good relations between persons who share a relevant protected characteristic and persons who do not share it.

No answer

19. Do you think that this proposal would be likely to have any impact on people from lower socio-economic backgrounds?

Yes

There is limited evidence to suggest that energy drinks consumption is closely linked to socio-economic status. We note that obesity levels are higher in more deprived areas, and express concern that these inequalities are continuing to rise[23]. We also note an association between receiving free-school meals and energy drinks consumption[24] in a sample population where 13% receive free-school meals. Among students who reported drinking at least one energy drink per day, 23% receive free-school meals, whereas among those who report never drinking energy drinks, 11% receive free school meals. This disproportionate consumption suggests that the ban may have greater impact and health benefits for children from lower socio-economic backgrounds.

We would therefore recommend that potential impact on children from lower socio-economic backgrounds is closely monitored and reviewed as part of the ongoing impact assessment of the ban.

20. If there are any further matters that you would like to raise or any further information that you would like to provide in relation to this consultation

No answer

About the RCPCH
The College is a UK organisation which comprises over 15,000 members who live in the UK, Ireland and abroad and plays a major role in postgraduate medical education, as well as professional standards.

For further information please contact:
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[23] RCPCH. Child Health in England in 2030: comparisons with other wealthy countries, 2018. https://www.rcpch.ac.uk/resources/child-health-england-2030-comparisons-other-wealthy-countries

[24] Fiona, M Brooks, Ellen Klemera, Josefine Magnusson, Kayleigh Chester. Young People and Energy Drink Consumption in England. Findings from the WHO Health Behaviour in School aged Children (HBSC) Survey 2015. *Detailed Analysis on Findings Relating to Consumption of Energy Drinks by Young People.* Commissioned report for Department of Health