

BRIEFING

ENERGY DRINKS AND CHILDREN

OBESITY ACTION SCOTLAND

November 2019

KEY POINTS

- Consumption of energy drinks by children is a public health concern and is associated with headaches, fatigue, tooth decay and type 2 diabetes
- There is no definition of a safe amount of caffeine for children and young people
- Energy drinks are defined as soft drinks that are high in caffeine (over 150mg/litre)
- Energy drinks now represents 6% of total soft drinks sales in the UK in 2018, with revenues exceeding £2 billion
- Over half of energy drinks products in 2015 & 2017 were also high in sugar
- Parents and teachers support a ban on sales of energy drinks to children, linked to physical symptoms and adverse effects on behaviour
- In 2018 all major UK supermarkets as well as the members of the Federation of Independent Retailers in Scotland introduced a voluntary ban on sales of energy drinks to under-16s, thus acknowledging that these products are potentially harmful to children

KEY RECOMMENDED ACTIONS

- A mandatory ban on sales of energy drinks to children under the age of 18 (increasing from 16) following consultation
- Promotion of water as the drink of choice for children
- Improved labelling of energy drinks with health warnings
- A mandatory ban would create a level playing field for all retailers

Definitions

Energy drinks are soft drinks that contain higher levels of caffeine than other soft drinks, and may also contain a lot of sugar (though low- or zero-calorie energy drinks are available).¹ These drinks may also contain other stimulants such as taurine, ginseng or guarana.

Under current labelling rules (Regulation (EU) No 1169/2011) any drink, other than tea or coffee, that contains over 150mg of caffeine per litre requires a warning label saying: 'High caffeine content. Not recommended for children or pregnant or breast-feeding women'.¹

Sports drinks are drinks designed to replace fluids and electrolytes/ minerals lost by sweating and supply a boost of carbohydrate.² They usually do not contain stimulants.

Energy drinks market

The worldwide energy drinks market is reportedly nearing \$50 billion USD and is predicted to grow to \$85 b USD by 2026.³ Sales in the UK increased from 270 million litres in 2005 to 700 million litres in 2018.^{2,4} Consequently, over the last 6 years alone (2013-2018) the energy drinks market in the UK has increased in value from £1.4 billion to over £2 billion.^{2,5} Energy drinks together with sports drinks constituted 6% of total soft drinks sales in the UK in 2018.²

In Scotland, the energy drinks market is also growing, with 'big cans' driving this growth at 21% of the market.⁶ In the convenience 'big can' flavoured category, 'Rockstar' is leading the way in Scotland with almost half of all sales in the category.⁶ Following on from the launch of Coca-Cola's first energy drinks brand 'Coca-Cola Energy' in April 2019, Scottish soft-drinks brand Irn-Bru recently launched 'Irn-Bru Energy', comprising of both full-sugar and low-calorie options.⁶

Low calorie options are becoming more prevalent in the market due to the introduction of the soft drinks industry levy (SDIL), known as the 'sugar tax' in April 2018. The value of the 'big can' market for low calorie energy drinks in Scotland was worth over £16 million in 2018 and has been projected to grow significantly over the next five years.⁷ Despite this, industry trend reports show that sales of sugary energy drinks have remained steady.⁸

Consumption of energy drinks

Sugar-sweetened beverage consumption (SSB) by children and young people has long been a public health concern, which has led to a decrease in SSB intakes in higher income countries but energy drink consumption has not followed the same trend, despite their health effects (Box 1.).⁹

Around two thirds of children aged 10-17 in the UK and nearly a quarter of those aged 6-9 consume energy drinks.¹ The evidence suggests that some consume three or more in one sitting, which may expose them to the adverse effects of consuming high doses of caffeine,¹⁰ and that boys consume more energy drinks than girls.¹¹

Box 1. Effects of energy drinks on children and young people

Consumption of energy drinks in children and young people has been associated with a number of health complaints including headaches, sleeping problems, stomach aches, irritation, tiredness and fatigue.^{12,9} Consumption of energy drinks by young people is also associated with other health harming behaviours such as binge drinking, smoking, drug use, excessive screen time and poor dietary habits.^{9,13}

A study in 2015 revealed the excessive amounts of sugar in energy drinks, some containing 20 teaspoons of sugar (78g) per 500ml serving.¹⁴ Excessive sugar consumption is associated with tooth decay, type 2 diabetes and obesity, which can increase the risk of heart disease, stroke and some common cancers.¹⁵

Little is known about how caffeine interacts with other stimulants sometimes found in energy drinks, or the effects of such combinations on young people.¹³

Inequalities

Consumption of energy drinks may also be linked with deprivation. An association between consumption of energy drinks and receiving free school meals (indicator of low socioeconomic status) was found in a study of health behaviours in English school-aged children.¹⁶ Similarly, a large Norwegian study involving over 31,000 adolescents¹⁷ concluded that daily and high consumption of energy drinks among 12-19 year-olds, was independently associated with low socioeconomic status, as well as with male gender, physical inactivity, high leisure screen time, and rural residency.¹⁷

Obesity and tooth decay show a strong link with inequalities in Scotland. Children and young people from the most deprived areas are more at risk of becoming overweight or obese and are more likely to have tooth decay than those in the least deprived areas.^{18,19} Young people from lower socioeconomic background are consuming energy drinks due to the low price of some brands.²⁰ Restrictions on sales to children would limit consumption for all children irrespective of socioeconomic status.

Age limit

Although all voluntary bans on sales of energy drinks to children use the age of 16 years, there are arguments for raising it to 18. First of all, 18 is already recognised as the appropriate age for other health harming commodities such as alcohol and tobacco. Secondly, article 1 of the UN Convention on the Rights of the Child uses 18 as the upper boundary of childhood and article 24 outlines that States Parties recognise the right of the child to the enjoyment of the highest attainable standard of health. Finally, EFSA data indicates that adolescents aged 10-18 are by far the greatest consumers of these drinks and that young people in UK consumed more energy drinks on average than their counterparts across the other EU countries.¹³



Energy drink marketing

Energy drinks are marketed as a solution to combat tiredness and fatigue and increase mental alertness, due to the high levels of sugar, caffeine and possibly other stimulants. They are typically non-alcoholic beverages, but have long been associated with alcohol in the form of mixed drinks served in bars and clubs.

Energy drinks brand 'Red Bull' has long been associated with sport, sponsoring 15 teams over eleven different sports, and is well known in the UK for their Formula 1 team.²¹ In Scotland, they have sponsored Scottish BMX star, Danny MacAskill.²² In July 2019, they launched a new consumer campaign, said to be their biggest ever on-pack campaign, with 6 Red Bull-sponsored athletes appearing on 80 million cans.²³

Celebrity endorsement has previously been seen to affect food choice and increase calorie intake, leading to overconsumption in children.²⁴ Commercial partnerships with high fat, salt and sugar (HFSS) brands in sport have also been shown to encourage children to purchase from the brand.²⁵

Evidence also suggests that the type of marketing may influence young people's consumption of energy drinks. An Australian study of 359 young adults, aged 18-24 found that of all marketing, digital marketing was the most strongly associated with energy drink consumption.²⁶ This exposure significantly improved the young adults' attitudes towards and intention to consume energy drinks. Gendered branding and marketing can also influence consumption habits of energy drinks and low price and high availability influence consumption.⁹



Current regulation

Regulation (EU) No 1169/2011 on the provision of food information to consumers states that beverages with high caffeine content or products with more than 150mg caffeine per litre, with the exception of tea and coffee, must be labelled with 'High caffeine content. Not recommended for children or pregnant or breast-feeding women'. This statement must be in the same field of vision as the name of the beverage and must be followed by the indication of the amount of caffeine per 100ml in brackets.²⁷ The Food Information (Scotland) Regulations 2014 provide for the enforcement of the EU Regulation in Scotland.²⁸

Situation in the UK

A study looking at the amount of sugar, energy and caffeine in sugar-sweetened drinks marketed and consumed as energy drinks in the UK between 2015 and 2017, found that the number of energy drink products available on the market fell between 2015 and 2017 but sugar, calorie and caffeine content remained at concerning high levels in 2017.²⁹ In 2015 and 2017, 59% and 54% of products, respectively, exceeded the maximum UK recommendation for sugar intake per serving for an adult (30 g/day).²⁹

In spring 2018, all major UK supermarkets (Aldi, Lidl, Morrison's, Waitrose, Asda, Boots, Sainsbury's, Tesco and Co-op) introduced a voluntary ban of sale of drinks with a high caffeine content (> 150mg/l) to under-16s.³⁰ They were therefore acknowledging that these products are potentially harmful to children.

In April 2018, energy drinks were included in the Soft Drinks Industry Levy (SDIL) which was introduced. Due to this, the sugar content in some energy drinks has been reduced; however, this had no effect on caffeine content. Sugar has been reduced in drinks covered by the levy by 11% and average calories per portion have been reduced by 6%.³¹ Public Health England also reported that data shows people are buying more drinks that have sugar levels below the SDIL cut-off of 5g per 100g.³¹

We are yet to see whether the SDIL has led to decrease in consumption of energy drinks, specifically. Impact assessments carried out by the soft drinks industry prior to the levy being introduced predicted that a 9% decline in sales would occur in the energy drinks category.³² This was due to all energy drinks subject to the levy being taxed at the higher rate due to sugar content. To counter this reduction in sales, there has been an increase in low or no sugar varieties targeting more health conscious 18-34 year olds.³³

There have been discussions about the potential opportunities to change front-of-pack nutrition labelling after Britain's exit from the European Union.³⁴ Some also see this as an opportunity to introduce warning labels on products that are high in caffeine or high in certain nutrients such as salt or sugar.³⁵

Situation in Scotland

In Scotland, although not yet restricted by law, many sites have banned the sale of energy drinks to children under the age of 16, voluntarily. For example, in March 2018 members of The Federation of Independent Retailers (NFRN) in Scotland voted in favour a ban of sales of energy drinks to under-16s.³⁶

In May 2019, NHS Scotland announced a ban on sale of energy drinks to children under the age of 16 across all Scottish hospital sites.³⁷ Hospital shops and catering sites will not be able to sell energy drinks to children, if they contain more than 150mg/l caffeine. The ban, which will commence from the 30th November 2019, will be introduced as part of an update to the Healthcare Retail Standard, criteria that must be met by all NHS retailers in Scotland.³⁸ It aims to increase the number of healthier products available in NHS sites across Scotland.

In August 2019, publicly funded leisure centres in all Scottish local authorities banned the sale of energy drinks (>150mg/l caffeine) to children under 16,³⁹ while many supermarkets and larger retailers have already voluntarily enacted the same ban.

The Scottish Government plan to consult on the restriction of energy drink sales in 2019, a move welcomed by teachers' unions,⁴⁰ with some schools already having banned the consumption of energy drinks on the premises.

Public attitudes and opinions

Children and young people

Evidence suggests that children, particularly younger children, are not fully aware of the potential health harms of consuming energy drinks. A study in Europe found that 42% of children aged 3-9 could not tell the difference between energy drinks and other soft drinks.¹⁰ Studies have also shown that some children and young people can be confused about the potential health effects of energy drinks and would value opportunities to learn about the risks at school.⁹

While children may be not aware of health harms, they show strong brand awareness and identified price, availability, branding and marketing as key factors influencing preference.⁹ A 2017 UK focus group study of school children aged 10-11 and 13-14 years found that no one dominant factor predicated consumption choices, but that consumption was linked to a variety of contexts, including during social activities, sports and computer gaming.⁹

Adults, parents and teachers

The Children's Food Campaign surveyed a panel of 135 parents representing a total of 260 children from 2-17, as part of their Parents' Jury. Almost 100% (134 out of 135) supported a ban on sales of energy drinks to children in the UK.²⁰

The Children's Food Campaign also opened a survey for UK teachers to share their views and experiences of the effects of energy drinks on pupils, 97% of teachers surveyed were supportive of a ban of sales of energy drinks to children.²⁰ Teachers in the survey reported many adverse effects in pupils including hyperactivity in lessons followed by drops in energy, heart palpitations and lack of focus. They also noted that drinking energy drinks was seen as 'cool' by peers.

A 2017 survey by teachers' union 'NASUWT' in England found that 13% of teachers identified energy drinks as a critical contributor to poor pupil behaviour and engagement in lessons.⁴¹

Food Standards Scotland's 2018 'Consumer Tracking Survey' found that Scottish adults correctly estimated how much sugar was in energy drinks (55g estimate, 55g actual), indicating that most were aware of the high calorie content.⁴² Out of 1002 respondents, 10% stated that they consumed energy drinks once a week or more, whilst 50% supported introducing restrictions on the sale of energy drinks.⁴²

Policy positions

The **Scottish Government** are currently undertaking a public consultation on proposals to ban the sale of energy drinks to children and young people.⁴³ The consultation will run from 29th October 2019 to 4th February 2020. They have also committed to working with Sporta, the co-ordinating body for leisure trusts, on whether such ban can be taken in the 1,300 facilities their members manage in Scotland.⁴⁴ This action was successfully completed in August 2019.

In June 2018 the **Scottish Government** launched a consultation on the nutritional requirements for food and drink in schools which proposed allowing sugar free soft drinks in secondary schools to provide more choice but stated that this should not include high caffeine varieties, i.e. energy drinks.⁴⁵

The **UK Government** in 2018 consulted on introducing legislation ending the sale of energy drinks to children (under 16 or 18 to be decided in the consultation).³⁴ These proposals would only apply in England but the UK Government noted that they intend to work closely with devolved nations to ensure alignment of policy.

The **UK Government Cabinet Office and Department of Health and Social Care** published the green paper and consultation, 'Advancing our health: Prevention in the 2020s', in which they stated that 93% of the energy

drinks consultation respondents supported a ban on the sale of energy drinks to children.⁴⁶ They announced that the UK government would be ending the sale of energy drinks to children under the age of 16.

The **Association of Convenience Stores (ACS)** in their response to the UK energy drinks consultation¹ stated that a legal age restriction for energy drinks would promote compliance in the convenience sector and create a level playing field. As over half of independent convenience retailers and many large groups have voluntary policies in place, an enforced age restriction would ensure clarity across the sector.⁴⁷ Commentators noted that industry understood that energy drinks are not suitable for children and would therefore not object to enforced age restrictions.⁴⁸

The **House of Commons Science and Technology Committee** launched a report on energy drinks and children in March 2018. The committee concluded that drinking energy drinks was correlated with young people engaging in risky behaviours such as drinking alcohol and smoking.⁴⁹ Surprisingly, they concluded that the scientific evidence alone did not support a ban on sales to children. However, this conclusion was challenged by health experts and campaigners.⁵⁰



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