

Nutrition, Health and Cartoon Animation on Food and Drink Packaging

June 2019



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Action on Salt, Action on Sugar, and Children's Food Campaign — June 2019

BACKGROUND

Sugar and Health in Children

Nearly one in five children aged 2-15 are obese¹, which increases the risk of developing a range of serious diseases, such as coronary heart disease, high blood pressure and type 2 diabetes. While obesity is a multi-faceted issue with a wide range of contributing factors, research shows a high sugars intake increases the risk of higher energy intake, which can contribute to weight gain. A diet high in sugars is also associated with tooth decay².

Official recommendations are that intake of free sugars – sugar which is added to foods or naturally present in honey, syrups and unsweetened fruit juices and smoothies – should be limited to no more than five per cent of dietary energy:

- Children under the age of four should avoid sugar sweetened drinks and food with sugar added to it
- Children aged 4-6 should have no more than 19g of free sugars a day (equivalent to 5 sugar cubes)
- Children aged 7-10 should have no more than 24g of free sugars a day (equivalent to 6 sugar cubes)
- Adults should have no more than 30g of free sugars a day (equivalent to 7 sugar cubes)

However, the latest official statistics³ show that children from all age groups are having more than double the maximum recommendation for free sugars.

¹ NHS, 2007 <https://www.nhs.uk/news/2007/Pages/Obesityinchildren.aspx>

² SACN, 2015, Carbohydrates and Health. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf

³ PHE. National Diet and Nutrition Survey 2014/15 – 2015/2016 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/699241/NDNS_results_years_7_and_8.pdf

Salt and Health in Children

Excess salt in the diet is also an issue for children. Evidence suggests that eating too much salt as a child can affect blood pressure, increasing the risk of illness in later life. A liking for salty foods is an acquired taste that we develop over time, so it is best to keep salt intakes low in childhood to prevent a preference for salty foods later in life.

The UK government⁴ recommends the following maximum salt intakes for children:

Age	Maximum Salt Intake per day
0-6 months	<1g
6-12 months	1g
1-3 years	2g
4-6 years	3g
7-10 years	5g
11 years +	6g

Marketing children's food products and health

Research shows that children as young as three show a preference for branded foods over identical unbranded products⁵. Cartoon animation on packaging is one of the most frequently used ways of marketing to children. Animation ranges from the use of licensed TV, book and film characters such as Peppa Pig and Roald Dahl characters, through to unlicensed characters created by the manufacturers themselves.

In the UK, some restrictions exist to limit advertising of 'unhealthy' products to children. The Advertising Code set by the Committee for Advertising Practices (CAP/BCAP) for broadcast advertising does not allow broadcasting of adverts for products classified as high in fat, salt and/or sugars, using the Department of Health nutrient profiling model, during programming with an audience of more than 25% aged under 16 years. Transport for London applies a similar criteria for high fat, salt and/or sugar food for advertising on its network.

However, advertising is still permitted on major network shows which attract a family audience and child friendly characters are permitted on packaging and promotions.

⁴ Scientific Advisory Committee on Nutrition, 2003, Salt and Health <https://www.gov.uk/government/publications/sacn-salt-and-health-report>

⁵ Hastings G. et al, 2003, Review of research on the effects of food promotion to children, commissioned by the Food Standards Agency <http://tna.europarchve.org/20110116113217/http://www.food.gov.uk/news/pressreleases/2003/sep/foodtochildren>

In a Children's Food Campaign Parents' Jury⁶ survey in 2018, more than 9 in 10 parents said they supported the Government bringing in restrictions on the use of child friendly TV and film characters on foods high in fat, salt and sugar. The use of these characters, and associated toys, was the second highest issue of concern for parents in terms of junk food marketing tactics used to target children, after TV advertising.

Rationale

Action on Salt and Action on Sugar undertook a comprehensive review of UK food and drink products featuring child friendly cartoon animation and characters on pack to assess their fat, salt and sugar content. The aim was to establish if these products would be classified as 'unhealthy' using the UK traffic light labelling system for fat, saturated fat, sugar and salt, as well as the Department of Health nutrient profiling model used by the Committee for Advertising Practices. Despite featuring characters and animation targeted at children, would these products even be eligible to advertise during children's TV programming?

Method

The survey looked at products with packaging that would appeal to children, available in all major UK retailers (Aldi, ASDA, Co Op, Iceland, Lidl, Marks & Spencer, Morrisons, Sainsbury's, Tesco and Waitrose). Product data was collected in store in March 2019, from product packaging using the FoodSwitch Data Collector App, and where not available, captured online from the retailers' website. Duplicates of the same product with different sizes were removed. Inclusion criteria of what would constitute as 'child-friendly' packaging are:

- Products with animated brand equity/licensed cartoon characters on products were included, as well as non-animated TV shows aimed at children (e.g. Mr Tumble, Teletubbies)
- Products with an animated character on front of pack

Exclusion criteria:

- Products with a character embedded in their logo (e.g. Pringles, Laughing Cow)
- Easter products
- Large occasional/celebration cakes

Products were classified as high in fat, saturates, sugars and/or salt according to the Department of Health⁷, where products would be marked with a red label on front of pack if they exceeded the following values:

⁶ The Children's Food Campaign, 2018 [Parent's Jury Report](#)

⁷ Department of Health https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/566251/FoP_Nutrition_labelling_UK_guidance.pdf

Criteria for 100g of food

	LOW	MEDIUM	HIGH
Colour Code	Green	Amber	Red
Fat	≤3.0g/100g	>3.0g to ≤17.5g/100g	> 17.5g/100g
Saturates	≤1.5g/100g	>1.5g to ≤5.0/100g	> 5.0g/100g
(Total) Sugars	≤5.0g/100g	>5.0g to ≤22.5/100g	>22.5g/100g
Salt	≤0.3g/100g	>0.3 to ≤1.5g/100g	>1.5g/100g

Criteria for 100ml of drink

	LOW	MEDIUM	HIGH
Colour Code	Green	Amber	Red
Fat	≤1.5g/100ml	>1.5g to ≤8.75g/100ml	>8.75g/100ml
Saturates	≤0.75g/100ml	>0.75g to ≤2.5/100ml	>2.5g/100ml
(Total) Sugars	≤2.5g/100ml	>2.5g to ≤11.25/100ml	>11.25g/100ml
Salt	≤0.3g/100ml	>0.3 to ≤0.75g/100ml	>0.75g/100ml

Products are classified by the Department of Health nutrient profiling model as high in fat, salt and/or sugar (HFSS) if foods score 4 or more points and drinks score 1 or more. Current rules from the Committee for Advertising Practices state that “HFSS product advertisements must not be directed at under-16’s through the selection of media or the context in which they appear and no medium with an audience that consists of more than 25% of under-16s should be used to advertise HFSS products”.

RESULTS

Key findings

- Half (51%) of 526 food and drink products which use cartoon animations on their packaging to appeal to children are unnecessarily HIGH in fat, saturated fats, sugar and/or salt
- 50% of products featuring child friendly cartoon animation would fail the Committee for Advertising Practices eligibility criteria and therefore would not be allowed to be advertised during children's programming or on Transport for London
- 75% of products were from food categories that are not recommended for frequent consumption: biscuit, cakes, cupcakes and donuts, cakes /biscuit bakery mixes, chocolate, desserts / ice cream / edible ices and sugar confectionery categories
- 223 products (42%) were high in sugar
- 26 products (5%) were high in salt and 32% contained amber levels of salt. The majority of products were not savoury, which may account for why there were not more products high in salt
- 87 products (17%) were high in fat
- 97 products (18%) were high in saturated fat

Licensed characters

One in five (21%) products used licensed characters (e.g. Disney, Peppa Pig and Paw Patrol) that are often well recognised by young children.

Shockingly, 32 of the 94 products surveyed (34%) using licensed characters have a red label for either fat, saturated fat, sugars and/or salt, classifying them as being unhealthy.

Examples of products with licensed characters include:

- **Kinnerton Paw Patrol 6 Mini Chocolate Bars** with over 60% sugar and 17% saturated fat (7.2g sugar and 2.1g saturated fat/serving). Just one 12g chocolate bar⁸ would provide a 4-6 year old with over a third (38%) of their maximum daily recommended intake for sugars⁹.
- **Paw Patrol Milk Chocolate Coins** with 60% sugar; eating 4 coins would provide a 4-6 year old with 12g sugar¹⁰ - nearly two thirds of their maximum daily recommended intake.

⁸ One Paw patrol mini chocolate bar (12g) contains 7.2g sugars

⁹ The maximum daily-recommended intake of sugar for 4-6 year olds is 19g. For 7-10 year olds, it is 24g. Information taken from [Public Health England's Sugar Reduction: Evidence for Action](#)

¹⁰ Each bag of chocolate coins contains 15 individually wrapped coins. The total bag weight is 75g, therefore each coin weighs 5g each. Four coins would total 20g, providing a child with 12g sugars.

- **Cathedral City Paw Patrol Nibbles Mild Cheese Pack**, contain 1.80g of salt/100g (0.30g/bag).
- **Peppa Pig Candy Bites** with 99% sugar
- **Peppa Pig Muddy Puddle Cupcakes** with 47.9% sugar (9.6g sugar and 0.8g saturated fat per cupcake).

Products with brand mascots and characters

Of the 433 products surveyed that use brand mascots and characters appealing to children, a staggering 53% would receive a red (high) warning label on pack for sugar:

- **Dr. Moo Quick Milk Magic Sipper Strawberry** was packed with the most sugar – a whopping 94.0g/100g – that is over 23 tsp of sugar (5.6g/straw).
- **Morrisons Dolly Mixtures** with an animated mouse character contain 86.6g sugar per 100g, or 21.7g for a third of a bag - over 5 teaspoons worth of sugar. This would be more than the maximum recommended intake of sugars for a 4-6 year old.
- **Aldi's The Juice Company Kids Smoothie Orange, Pineapple & Mango** with images of animated fruit contained the most sugar per suggested serving, with 27g sugar in 200ml; equivalent to 7 teaspoons. This would be more than the maximum recommended intake for children under 10 years.

Salt offenders included:

- **Peperami Tex-Mex Snack Pack** with an image of Peperami's Animal mascot wearing a Mexican sombrero at 4.30g/100g – 0.22g per piece, or 2.15g per bag. That's more than a third of an adult's maximum recommended daily intake of salt, and half a bag would provide a 1-3 year old with over 50% their maximum daily intake (2g/day).
- **Cheetos Cheese**, with an image of their Cheetah mascot, scores not much better at 3.20g of salt/100g (0.96g/30g portion).
- **Fray Bento's Meatballs in Bolognese sauce** with an image of an alien provides 2.40g salt per portion (1.30g/100g), which is more than the maximum daily recommended intake for a 1-3 year old (2g/day).

Only 18 healthy food and drink products (such as fruit, vegetables and water) used on-pack child friendly animations. Lidl came out as the best retailer in that respect with their Oaklands range of fruit and vegetables.

High and Healthier options

The survey not only highlights products with extremely high levels of fat, saturated fat, sugars and/or salt, but also comparably healthier alternatives, demonstrating that reformulation is

possible. As the majority of products did not have traffic light labelling (70%), this has been calculated by Action on Salt and Action on Sugar, and demonstrates that providing traffic light labelling would make it easier for shoppers to identify healthier products.

Examples of high and healthier alternatives with packaging appealing to children include:

	Product	Total Fat (g/100g)	Sat Fat (g/100g)	Sugar (g/100g)	Salt (g/100g)
Snack Bars	Kellogg's Rice Krispies Snack Bar	11.0	8.5	29	0.55
Healthier Option	Little Dish Carrot Cake Fruity Bites	11.0	1.4	25.8	0.07
Ambient Meal	Fray Bentos Meatballs in Bolognese Sauce	5.7	1.8	3.1	1.30
Healthier Option	Crosse & Blackwell 4 Kids Spongebob Meatballs in Tomato Sauce	3.4	0.7	1.5	0.59
Yogurt	Milbona Fruity Duo Fromage Frais Strawberry & Banana	3.0	2.0	14.6	0.09
Healthier Option	Asda 8 Strawberry Fromage Fraistubes (Disney – Toy Story)	1.3	0.8	8.0	0.10

Conclusion

This analysis demonstrates that cartoon animation and characters which appeal to children are being used by food manufacturers and retailers to sell unhealthy foods which are high in fat, salt and / or sugar. The majority of foods and drinks featuring this type of packaging come from categories, which would not be recommended for frequent consumption, such as cakes, biscuits and confectionary. There is an opportunity for the food industry to use this method of marketing in a more positive way, by promoting more fresh vegetables and fruit. A small number of retailers have started utilising 'child friendly' packaging in this way, with Lidl leading the way with their Oaklands range of fruit and vegetables.

Lack of traffic light labelling on packaging also makes it hard for shoppers to easily identify the levels of fat, saturated fat, sugar and salt in their food, as well as which options are healthier.

Action on Salt, Action on Sugar, and Children's Food Campaign are calling for mandatory traffic light labelling on all food and drink products and for a ban on the use of animation on unhealthy products which are high in fat, salt and/or sugar. The same Advertising Codes as set by the Committee for Advertising Practices for broadcast advertising, should be extended to all forms of media, and to any programme watched by a child.

About us

Action on Salt and Action on Sugar are groups concerned with salt and sugar and its effects on health, supported by 24 expert scientific members. Action on Salt and Action on Sugar are successfully working to reach a consensus with the food industry and Government over the harmful effects of a high salt and sugar diet, and bring about a reduction in the amount of salt and sugar in processed foods as well as added to cooking, and at the table.

Children's Food Campaign aims to improve children and young people's health by campaigning for policy changes in our schools, in our communities and throughout our society that would promote healthy and sustainable food environments. It is a project of the charity Sustain: the alliance for better food and farming. Children's Food Campaign is supported by over 100 UK-wide and national organisations, including children's and health charities and professional bodies, trade unions, school food experts and environmental organisations.