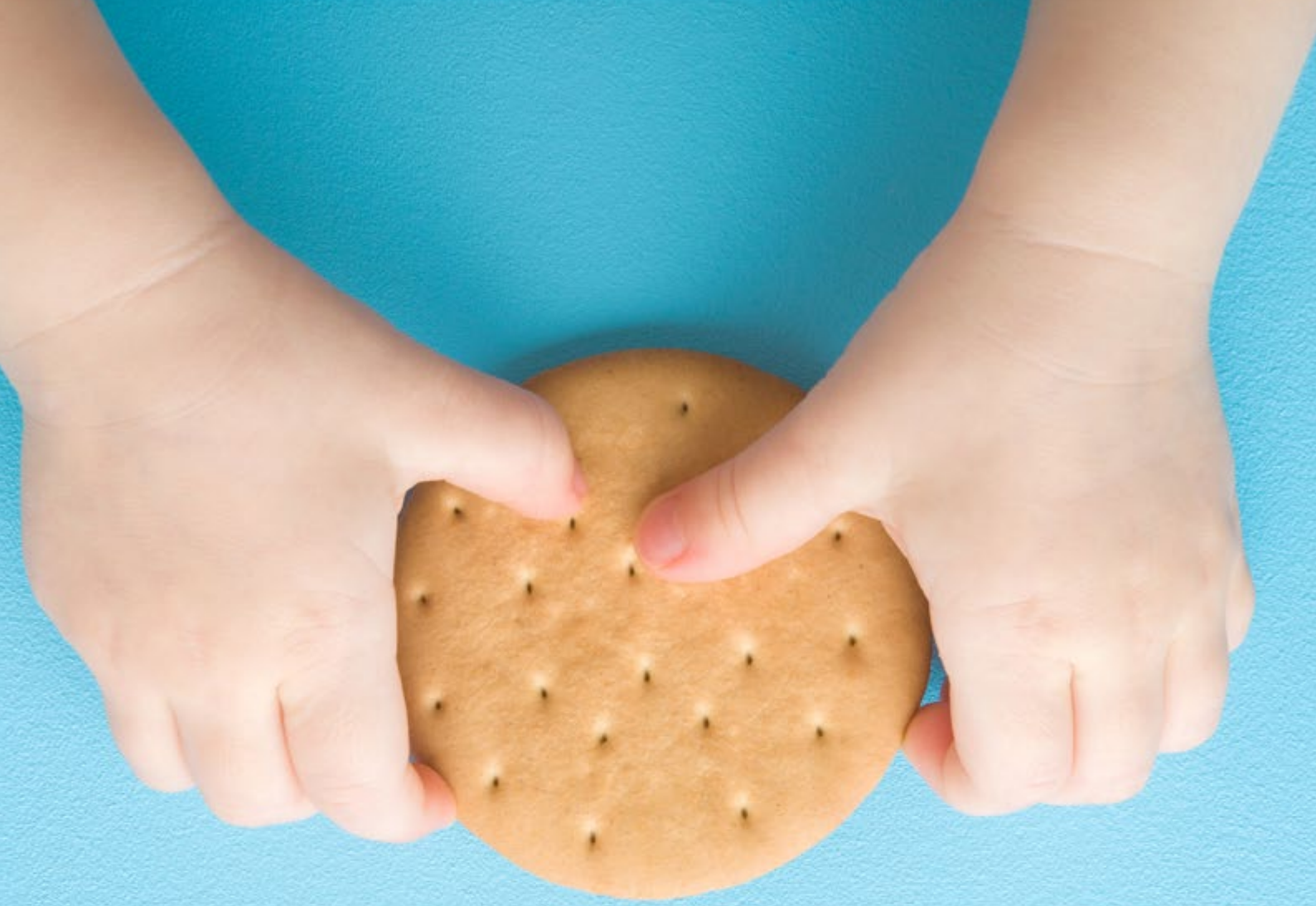


Taking the biscuit

How the UK government is promoting ultra-processed junk food to families

Soil Association

Introduction

Ultra-processed food is increasingly associated with ill health and environmental harms. And yet it makes up more than half of the average UK diet, with the highest consumption seen in children.

A growing body of research has linked ultra-processed food consumption with heart, kidney and liver disease, cancer, depression, obesity and even early death. National governments in many corners of the world have adopted legislative and other mechanisms to limit their citizens' intake of these foods.

The UK government has not followed suit. Despite the UK being one of the highest consumers of ultra-processed food and British children having the highest levels of ultra-processed food intake in Europe, these products have been ignored in UK government guidance addressing dietary ill health. Worse still, recent efforts to help parents and carers choose healthy products for their children have actually encouraged the purchase of ultra-processed food and drink.

We have found products encouraging unhealthy snacking, artificially sweetened beverages and even energy drinks awarded the UK government's Good Choice badge and promoted as healthy swaps by its NHS Food Scanner App.

Our campaign calls on UK government to stop taking the biscuit, remove their Good Choice badge from these products and support people to eat less ultra-processed food.

The evidence links ultra-processed foods with ill health

Ultra-processed foods, or UPFs, are defined by the NOVA categorisation, which was developed by the Brazilian physician Carlos Monteiro and his team at the Centre for Epidemiological Research on Nutrition and Health (NUPENS) at the University of São Paulo in Brazil. NOVA divides commercially available foods into four groups.

Group 1	**Unprocessed or minimally processed 'whole foods'** These include whole fruits and vegetables, whole grains, meat and animal products. Also included are fruits, vegetables, meat and animal products that have been processed using techniques common in household kitchens, such as drying, crushing, grinding, steaming, boiling, roasting, chilling, and freezing.	**Single ingredient:** Fresh or dried fruit, rice and grains, legumes, leafy greens, starchy roots and tubers, fungi, herbs and spices, pasteurised plain yoghurt, fresh or pasteurised milk, tea, water **Multi-ingredient:** Pasta, granola (cereals, nuts and dried fruit with no additives including sweeteners or salt added by the manufacturer), cous cous
Group 2	**Culinary ingredients** Substances obtained directly from group 1 foods or from nature by industrial processes such as pressing, centrifuging, refining, extracting or mining. These are used to prepare, season and cook group 1 foods.	**Single ingredient:** Pressed vegetable oils, butter, sugar and molasses obtained from cane or beet; honey extracted from combs and syrup from maple trees, salt, corn starch **Multi-ingredient:** Salted butter, iodised salt
Group 3	**Processed foods** Products made by adding group 2 ingredients to group 1 foods. Processes are used to increase shelf life or modify sensory qualities such as taste or form. For example, canning, bottling, and, in the case of breads and cheeses, using non-alcoholic fermentation.	Canned or bottled vegetables and legumes in brine; salted or sugared nuts and seeds; salted, dried, cured, or smoked meats and fish; canned fish (with or without added preservatives); fresh bread; fruit in syrup (with or without added anti-oxidants); freshly made unpackaged breads and cheeses.
Group 4	**Ultra-processed foods** Formulations of ingredients made by a series of industrial processes, many requiring sophisticated equipment and technology. They typically contain little or no whole foods, are ready-to-consume or heat up, and are fatty, salty or sugary and depleted in dietary fibre, and made using industrial additives and processes that wouldn't be found in a household kitchen.	Fizzy drinks (sugary or sweetened); crisps and packaged snacks; chocolate, confectionery; ice-cream; mass-produced packaged breads and buns; margarines and other spreads; biscuits, pastries, cakes; breakfast 'cereals', 'cereal' and 'energy' bars; milk drinks, 'fruit' yoghurts and drinks; 'instant' sauces. Many pre-prepared ready-to-heat products including pies and pasta and pizza dishes; poultry and fish 'nuggets' and 'sticks', sausages, burgers, hot dogs, and other reconstituted meat products; and powdered and packaged 'instant' soups, noodles and desserts. Infant formulas, follow-on milks, other baby products.

A robust and growing body of evidence concludes that it would be beneficial to our health for us to eat more minimally processed and natural foods, including healthy tinned and frozen produce.

Ultra-processed foods, on the other hand, have been associated with ill health, including chronic disease and heightened mortality risk. Crucially, this association extends beyond the nutritional composition of these foods. It is not simply that ultra-processed foods are high in salt, fat and sugar (though they often are); research is revealing a more complex picture.

We know that ultra-processed foods make us more likely to eat more than it may be healthy for us to do so. A growing body of scientific evidence is also revealing the damaging effect that the industrial additives and processing techniques involved in the production of ultra-processed foods have on the gut microbiome and our overall health.

The evidence is now so compelling that ultra-processed foods have become an issue of international concern, with leading academic journals, the United Nations' Food and Agriculture Organization (FAO) and national governments across the globe adopting 'ultra-processed' as a framing to shape dietary policy and advice for citizens on healthy eating.

We reviewed over 100 papers published in academic journals between November 2021 and October 2022. They exposed clear associations between increased UPF consumption and negative health outcomes, including poor liver health[1], depression[2], cardiovascular diseases[3], all cause and cardiovascular mortality[4], higher risk of coronary heart disease and cerebrovascular disease[5], increased risk of COVID-19 infection[6], higher risk of dementia[7], chronic kidney disease[8], kidney function decline[9], inflammatory bowel disease[10], diabetes[11], colorectal cancer[12], risk of frailty[13] and eating disorders[14], among other conditions.

This is especially concerning for children

This growing body of evidence also suggests that UPFs are of heightened concern for children, with negative associations between UPF consumption from pregnancy through to childhood. Higher frequency consumption of UPFs correlates with higher body mass and weight, even among very young children[15] and a predisposition to the development of unhealthy eating patterns later in life[16]. Increasing UPF consumption in the early years can even impact on child growth in height[17].

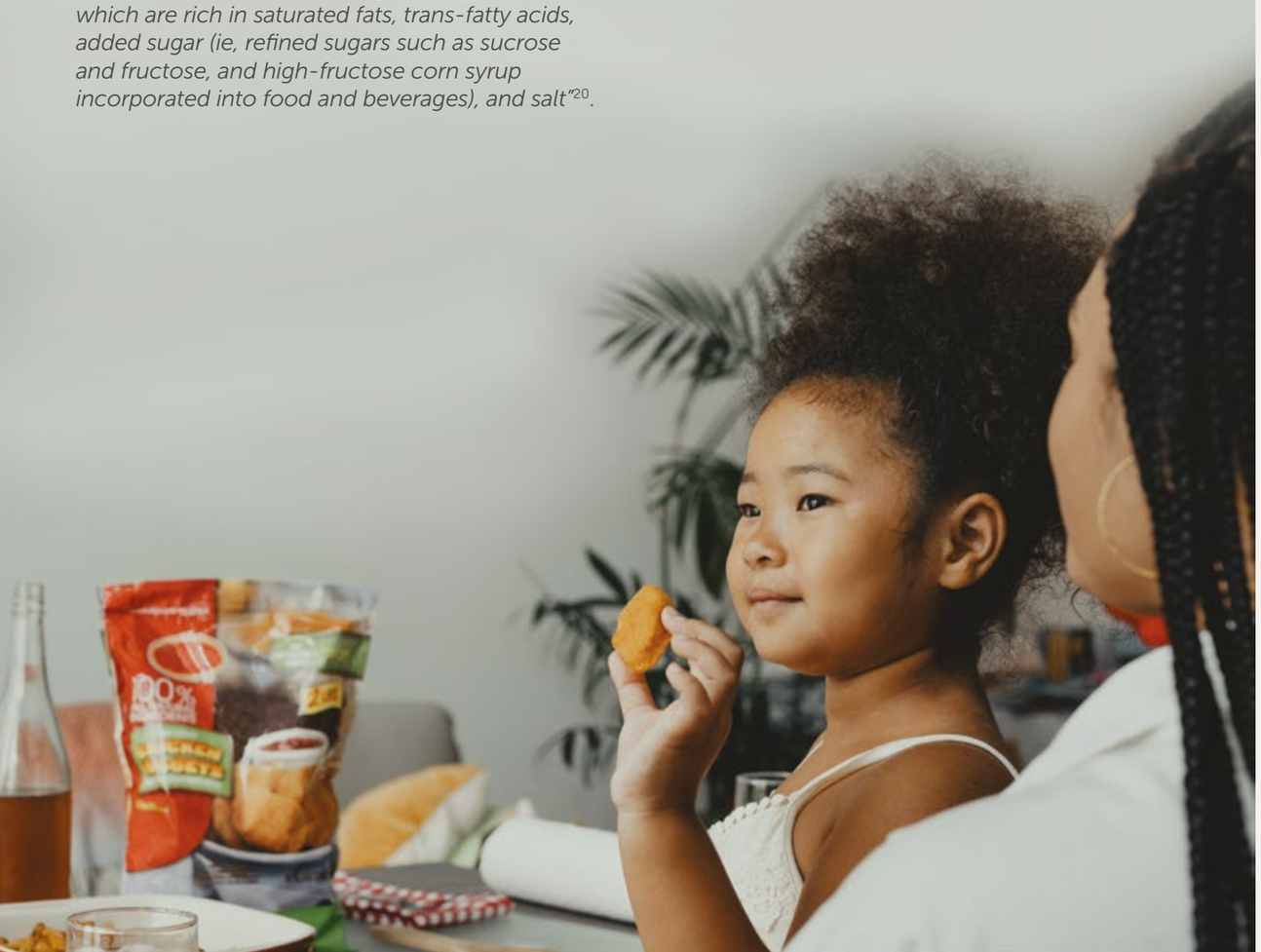
The evidence also revealed an inverse relationship between UPF consumption and cardiovascular health in adolescents[18]. Other research links higher consumption of UPFs in children with negative impacts on metabolic traits, many of which increase their obesity risk[19].

One study found that *"children in Europe are regularly exposed to marketing that promotes ultra-processed foods and high-energy drinks, which are rich in saturated fats, trans-fatty acids, added sugar (ie, refined sugars such as sucrose and fructose, and high-fructose corn syrup incorporated into food and beverages), and salt"*[20].

British children have the highest levels of ultra-processed food intake in Europe[21], with under 14s getting an average 67% of their daily energy intake from these types of food. UPFs account for an average 63% of daily energy intake across all age groups, up from 57% in 2008[22].

High UPF consumption in children is associated with poorer diet quality[23], an increased likelihood of living with overweight or obesity later in life[24] and greater increases in adiposity from childhood to early adulthood[25]. Children with higher levels of UPF consumption have been shown to have higher levels of cholesterol and triglycerides[26], as well as increases in body mass index (BMI), weight and waist circumference[27] and the development of early childhood caries (tooth decay)[28].

An exploration of the different ways in which diet is impacted through the consumption of ultra-processed food can be found in the Soil Association's Ultra-Processed Planet[29] and Ultra-Processed Foods[30] reports.



There is widespread concern about ultra-processed food

Evidence compiled for a Food Standards Agency and Food Standards Scotland report published in May 2022 revealed widespread concern among the public about the long-term health and safety implications of "over-processed" foods and support for regulatory action. Healthy nutritious diets were typically associated with minimally processed food and wide variety. Many of those surveyed for the report felt that food systems had become more profit-driven, with natural, fresh, healthy food less accessible. They saw access to safe, healthy, affordable food as a priority area for Government, including through regulation. Nearly half of those surveyed wanted regulatory action in order to *"reduce things added in the food process for example E-numbers, preservatives"*[31].

We're calling on the UK government to address the high level of ultra-processed food consumption in the UK and its associated health risks. Other countries have already taken relevant action.

We're calling for UK government action, including revised guidelines to encourage healthier eating and action towards reducing the percentage UPFs make up in the national diet.

There is precedent for this. Brazil, Canada, Chile, Ecuador, France, Israel, Mexico, Peru and Uruguay all encourage, via national dietary guidance, labelling or other mechanisms, limiting ultra-processed food intake among their citizens. The World Health Organisation and UNICEF, the United Nations' Children's Fund, both recognise the importance of addressing ultra-processed food consumption for ending childhood obesity. The UN Food and Agriculture Organization also recommends limiting UPF consumption.

But the UK government is dragging its feet.

Government action on healthy diets differs between the UK nations. In response to Henry's

Children in Europe are regularly exposed to marketing that promotes ultra-processed foods

Dimbleby's National Food Strategy for England, which raised concerns about ultra-processed foods, the UK Government's Food Strategy White Paper, published in June 2022, recognised them as contributors to the *"overconsumption of high calorie foods"*, announcing research funding in this area[32]. It's not clear how (or if) this funding will be spent.

The UK government is not only failing to adequately address UPFs, it has u-turned on measures announced in 2021 to introduce a 9pm watershed on TV advertising and restrictions on paid-for advertising of foods which are high in fat, salt and sugar online as well as restrictions on unhealthy food promotions in stores in England. Many ultra-processed foods fall into this category. It has halted work on a Health Disparities white paper, promised as part of Boris Johnson's government's Levelling Up agenda. Its entire anti-obesity strategy is reportedly under review[33]. In contrast, in September 2022, the Scottish government announced it would proceed with plans to ban promotions of food high in fat, salt and sugar[34]. The Welsh government is also proposing some measures to reduce the availability of unhealthy foods but some of these are reliant on UK government action[35].

Furthermore, in a collaboration with UK retailers, the UK government's Help for Households scheme, meant to help families in England with rising food and fuel costs, included a package of discounts on meals at supermarkets, criticised by children's food experts as ultra-processed and lacking in fruit and vegetables[36].

Our new investigation reveals that the UK government is actively promoting ultra-processed foods when they should be encouraging reduced consumption of them.

Every January, the UK government launches an NHS healthy eating campaign oriented around an App and logo as part of its Better Health programme.

Better Health began life in 2009 as "Change 4 Life", a public health programme run by Public Health England, to encourage families to make small but significant improvements in diet and activity, including increasing their fruit and veg consumption, limiting calorie intake, salt and fat, suggesting swaps to lower sugar intake and encouraging an active lifestyle. Promoted each year on TV and radio, through digital social media and direct marketing through schools, NHS organisations and local authorities, it has provided paper and web copies of free resources, including posters and leaflets.

In more recent years, parents have been encouraged to take control of their children's snacking by downloading free "food scanner" Apps, which provide information about scanned products in store or at home.

In 2021, "Change for Life" was brought under the "Better Health" brand. In January 2022, the UK Government's Department of Health and Social Care launched the NHS Food Scanner App. Families can download the App and scan barcodes while out shopping or on packaged food in home deliveries to identify the amount of sugar, saturated fat and salt in a product. If a product doesn't qualify for a "Good Choice" badge because it is above UK government fat, salt and sugar recommendations, "Smart Swaps" are then suggested.

The App doesn't, however, take into account the processing a product has gone through, and we were concerned it may be prompting parents and families to choose ultra-processed products.

We interrogated the App and mapped out the products carrying the UK government's Good Choice badge.

In response, we tested the App on popular snack foods sold in supermarkets and ran a small survey of parents and guardians, between 22nd July and 30th September 2022, based on their use of the Food Scanner App. They were asked to download the App and use it to scan the barcodes of three snack products in kitchen cupboards, in store or on a home delivery from the following list that their children enjoyed the most or that they bought the most often for their children.

- Savoury snacks (crisps, meat snacks, cheese portions)
- Sweet snacks (sweets, chocolate, cereal bars, biscuits, cake, fruit-based snacks etc)
- Drink (fizzy drinks, flavoured milk, squash).

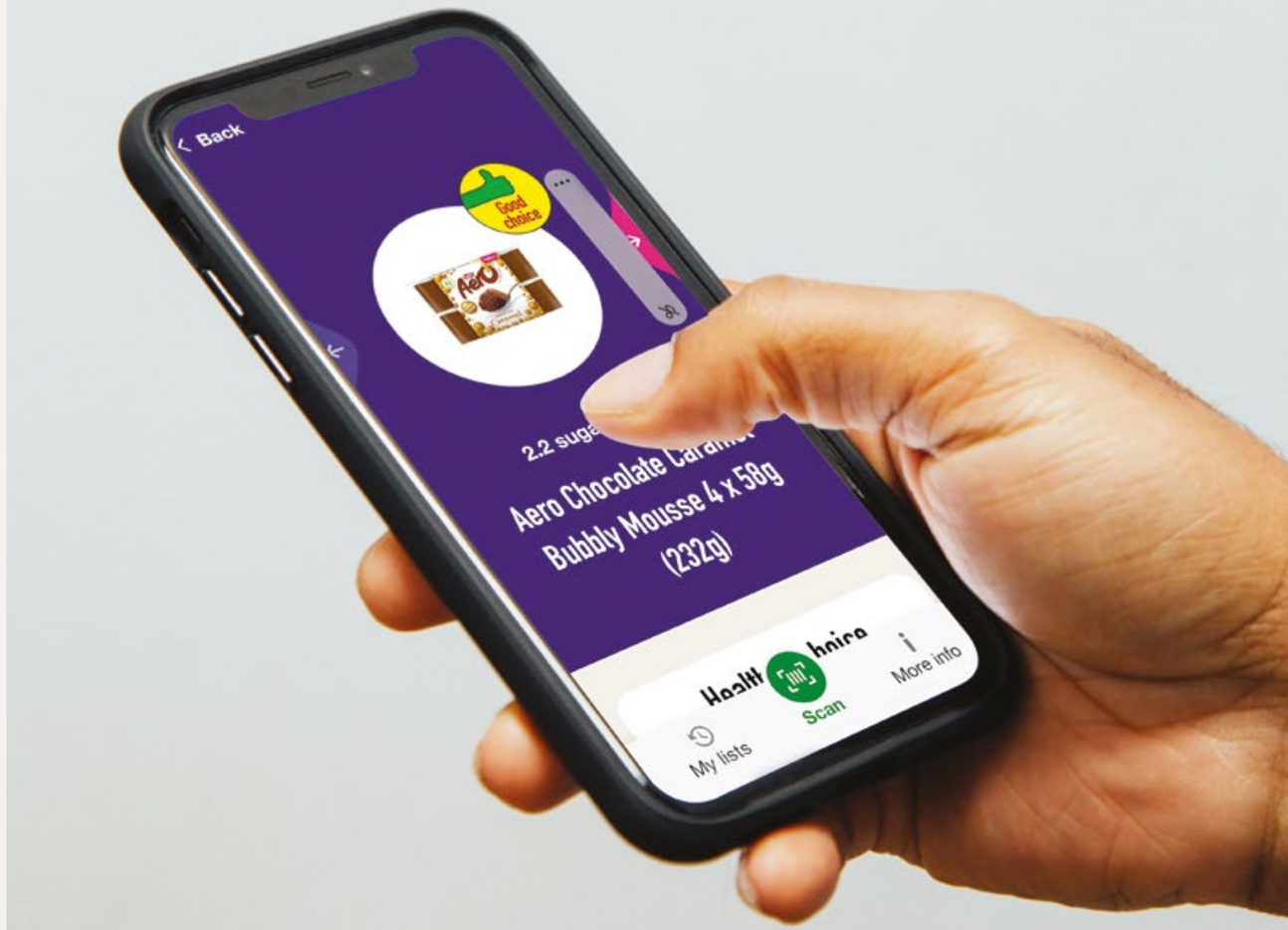
They were asked to use the information received to answer the questions in our survey and to scan an alternative product if a product didn't scan or a scan resulted in a "product not found" response. Further questions covered their experience of the App.

What we found – the UK government is offering a stamp of approval to ultra-processed foods, encouraging families to purchase unhealthy foods

Healthier Choice?

We picked out the following products as prime examples of ultra-processed products awarded Good Choice badges or similar and promoted as 'good' or 'healthier' choice swaps or given a 'High Five' by the NHS Food Scanner App. They are all produced by companies in the 2021 Top 100 Food & Beverage Companies[37], based on sales, or well-known British brands. Given the number of products thought to be part of the App's database, we cannot say whether they are the worst in terms of their impact on health.

- **McVitie's Rich Tea Biscuits**
- **Lost the Pot Noodle**
- **Pepsi Max Cherry No Sugar Cola**
- **Alpen Light Cereal Bars Chocolate and Fudge**
- **Kingsmill blueberry pancakes**
- **Monster zero sugar energy drink**
- **Mr Kipling Bakewell Sponge Slices**
- **Aero Chocolate Caramel Bubbly Mousse**
- **Jacob's Mini Cheddars Nibblies**
- **Richmond Sausage Hotpot**



Testing of the Food Scanner App by ourselves and our survey respondents revealed 104 products that had been awarded a "Good Choice" badge or similar endorsement. 80% of these products were ultra-processed foods and drinks and often included sweet treats with less sugar or saturated fat than the product scanned but containing a long list of ingredients which would never be found in a home kitchen, including a number of different sugar alternatives, emulsifiers and other additives.

Good Choice badges were awarded to fizzy drinks including Pepsi Max Cherry No Sugar Cola, which contains sweeteners such as Aspartame and Acesulfame K. A Good Choice badge was also awarded to Trident Soft Sugar Free Strawberry Gum as a swap for a BEAR Strawberry Yo Yo, a popular (if sugary!) snack for young children. This chewing gum also contains Aspartame and Acesulfame K, as well as sucralose. Aspartame has been associated in research published in 2022 with an increased risk of cerebrovascular events (such as stroke) and acesulfame potassium and sucralose with an increased coronary heart disease risk[38].

Monster Energy Ultra Black, a zero sugar energy drink was awarded a "High Five, go go green!" endorsement, despite evidence linking the consumption of energy drinks with negative health outcomes and these products containing warning labels which state 'High caffeine content. Not recommended for children or pregnant or breast-feeding women'.

Products containing processed meat, which has been widely linked to an increased mortality risk, were also awarded Good Choice badges.

The UK government is actively endorsing, through its Food Scanner App and Good Choice badge, industrially-processed products that can cause ill health. This exemplifies how detached the government's healthy eating guidance has become from the science linking ultra-processed food with poor health outcomes.

Parents and carers agreed with our findings

Our survey respondents agreed, offering the following comments in response to a question about whether they thought a tool such as the NHS Food Scanner App may be a helpful way to encourage families to eat more healthily.

The majority of respondents had to use the App on more than one product to get a successful scan. Supermarket own-brand products were identified as scanning less successfully than other products.

Respondents were also not keen on the swaps suggested by the App. More than half of the respondents who answered our question about whether they would buy the swap instead of the product they scanned said they would not buy the Good Choice swap.

> It doesn't offer alternatives such as fruit, nuts, seeds; just other processed foods, some of which contain ingredients I don't think are healthy

> Good to make families aware of nutrients in food but may not be providing the healthiest options for snacks.

> Some of the recommended [products] are still just as processed. Not once was fresh fruit, crackers or plain yogurt recommended. Giving fizzy drinks a good choice award because they contain no sugar sends out the wrong message

> Why buy biscuits slightly lower in sugar when I could be encouraged to buy fruit instead

> Only if it suggests healthier swaps e.g. swap slimline lemonade for water rather than saying it's a good choice

So where can families get UK government-endorsed advice about ultra-processed food?

Aside from its Food Scanner tool, the App includes a "more info" option to click on, explaining the App's features and providing links to the Better Health website as well as healthy recipes, including 17 pudding and snack recipes. These recipes rely on raw materials assembled at home, the vast majority of ingredients non-UPF in contrast to the App's focus on packaged foods, a high percentage of which are UPF. A further link takes you to the "Healthier Snacks for Kids" *page on the* Better Health website which claims *"veg and fruit snacks are always the best choice, but if the kids are having packaged snacks, just remember to aim for 2 a day max"*. It's also possible to sign up via the App to a newsletter with weekly recipes and tips for increasing fruit and veg intake.

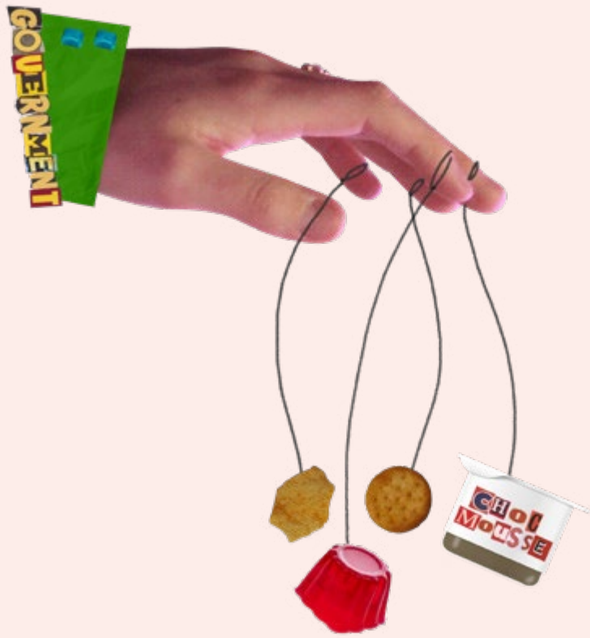
The "Healthier Snacks for Kids"[39] page on the Better Health website states that *"DIY snacks can be healthier and often cheaper than packaged ones"*. It also suggests swapping *"biscuits, sweets and chocolate muffins for healthier snacks like fruit and chopped veggies, plain rice cakes, toast with lower-fat spread or a fruited teacake"*. All of this additional advice appears to contrast starkly with the App's promotion of ultra-processed, packaged snacks. Significantly, not one of our survey respondents clicked on the link in the App that would have taken them through to the Better Health website for this additional information. Furthermore, the Better Health website only seems to accidentally propose alternatives to UPFs. Ultra-processed food is neither defined nor criticised (or even mentioned); a missed opportunity for UK government advice on reducing consumption of these foods.

We submitted two Freedom of Information requests to the Department of Health and Social Care, asking for information about the criteria used to justify a product being awarded a Good Choice badge and the App's links to food businesses.

We asked:

- Please provide the full list of products that qualify for a Better Health Healthier Families "Good Choice" badge on the packaging.
- What criteria are used to determine a product's qualification for a Better Health Healthier Families "Good Choice" badge?"
- Is the data gathered by the NHS Food Scanner App shared with any third parties outside government? Please provide details.
- Has the Better Health Healthier Families campaign (previously 'Change4Life') received any funding from food businesses over the past 5 years? Please provide details

In response, the Department provided a list of products awarded the UK government's Good Choice badge and the Office for Health Improvement and Disparities' "Good choice badge nutrition guidelines for partners", which provide details for retailers and manufacturers of the criteria under which a product is awarded the badge. They said they had not received funding from food businesses over the last five years and that the Good Choice guidelines – determining the use of the badge – were consistent with government dietary recommendations for saturated fat, added sugar and salt



Placing an NHS-endorsed 'Good Choice' badge on ultra-processed foods plays into the hands of a handful of businesses, instead of taking action to address the health impacts of these products.

Ultra-processed cakes and baked goods, including biscuits, make up 10% of the UK shopping basket[40]. This is significant, considering these foods are discretionary; unnecessary for a healthy diet and often high in saturated fat and added sugar or salt and low in fibre. Public Health England reported that children consume almost 400 biscuits a year[41].

Biscuit sales reached nearly £3bn in 2020[42]. United Biscuits, which owns McVitie's, Jacob's, Carr's, Crawford's and TUC has an annual revenue of £868,000,000[43]. McVitie's products are commonly promoted as Good Choice swaps by the NHS Food Scanner App.

Sales of discretionary UPF products contribute nothing to our health and are part of the UPF dietary pattern associated with poor health outcomes.

They already make up a disproportionate percentage of our diet, yet the UK government is prompting families on tight budgets to spend their precious money on them – pouring pounds into the pockets of food industry actors while contributing to dietary ill health, including in children.

Ultra-processed biscuit products such as those made by McVitie's also pose significant risks to the environments in which ingredients such as palm oil and cocoa are produced[44]. Ethical Consumer's Ethiscore gives United Biscuits a rating of only 3/20 (a 'worst' rating) for environmental reporting, carbon management, palm oil sourcing and managing workers' rights[45].

Other common swaps include Alpen cereal bars. Alpen is owned by cereals giant Weetabix, whose annual revenue is £335,010,000[46]. Weetabix scores only 6.5 of 20 available points in Ethical Consumer's ethics and environmental rankings for cereals, with 'worst' ratings for environmental reporting, palm oil sourcing and managing worker's rights[47].

Good Choice swaps also include products made by Coca-Cola, who scored only 1.5/20 marks on Ethical Consumer's Ethiscore table for soft drinks and has been named as the world's worst plastic polluter.

They also scored a 'worst' rating for managing workers' rights[48]. The Coca-Cola Company's annual revenue is £25 billion[49].

While these companies are just an illustration of those whose products are promoted by the NHS Food Scanner App, the 'Change4Life' campaign has been controversially linked to food businesses from the beginning. When the campaign first launched it was in partnership with commercial partners including Tesco, Asda, Pepsico, Kellogg's, The Co-operative Group, Spar, Costcutter, and Nisa. The campaign still seems to be playing into the hands of food business today, with several brands receiving notable endorsements through the Good Choice badge.

The low-cost supply chains and aggressive marketing strategies associated with UPF products promote excess consumption and make the industry highly profitable[50], despite the risks to people's health and the natural environment.

We need superpowers to resist ultra-processed foods!

It seems to take superpowers to resist UPFs. They are found everywhere, are cheap, moreish and widely advertised. They are almost impossible to avoid.

UK government guidance ignores our excessive consumption of these products, including by our children, and even promotes sales through the use of its Good Choice badge and Food Scanner App.

The UK government needs to catch up with the science and enact a policy response, as other governments globally are doing. It needs to prioritise people over corporate profits, especially in a cost-of-living crisis.

UK government guidance is deeply flawed, here's what it should do instead

1. Remove its Good Choice badge from ultra-processed products, including in the NHS Food Scanner App
2. Introduce dietary guidelines to address UPFs
3. Introduce a percentage reduction target to reduce UPF consumption levels in the UK to more healthy levels by 2030
4. Talk to families about their experience of ultra-processed foods, and work to ensure that healthy foods are more accessible and affordable.

Sign our Petition

Join us in calling for action to address ultra-processed diets by the Secretary of State for Health and Social Care, Steve Barclay, by signing our petition.

With your help we can re-balance the UK diet away from ultra-processed foods and address the many health related harms their over-consumption causes.

Sign our petition at

www.soilassociation.org/causes-campaigns/taking-the-biscuit

References

1. Konieczna, J. *et al*. (2022). Does Consumption of Ultra-Processed Foods Matter for Liver Health? Prospective Analysis among Older Adults with Metabolic Syndrome. Nutrients, 14(19), 4142; https://doi.org/10.3390/nu14194142
2. Mazloomi, S.N. *et al*. (2022). The association of ultra-processed food consumption with adult mental health disorders: a systematic review and dose-response meta-analysis of 260,385 participants. Nutritional Neuroscience. https://doi.org/10.1080/1028415X.2022.2110188
3. Debras, C. *et al*. (2022). Artificial sweeteners and risk of cardiovascular diseases: results from the prospective NutriNet-Santé cohort. BMJ; 378. https://doi.org/10.1136/bmj-2022-071204
4. Bonaccio, M. *et al*. (2022). Joint association of food nutritional profile by Nutri-Score front-of-pack label and ultra-processed food intake with mortality: Moli-sani prospective cohort study. BMJ; 378. https://doi.org/10.1136/bmj-2022-070688
5. Chen, X. *et al*. (2022). Associations of ultra-processed food consumption with cardiovascular disease and all-cause mortality: UK Biobank. European Journal of Public Health, Volume 32, Issue 5, October, Pages 779–785, https://doi.org/10.1093/eurpub/ckac104
6. Zhou, L. *et al*. (2022) Impact of ultra-processed food intake on the risk of COVID-19: a prospective cohort study. European Journal of Nutrition. https://doi.org/10.1007/s00394-022-02982-0
7. Li, H. *et al.* (2022). Association of Ultraprocessed Food Consumption With Risk of Dementia: A Prospective Cohort Study. Neurology, Jul 27. https://n.neurology.org/content/99/10/e1056
8. Du, S. *et al*. (2022). Association Between Ultraprocessed Food Consumption and Risk of Incident CKD: A Prospective Cohort Study. American Journal of Kidney Diseases, Volume 80, Issue 5, November, Pages 589-598.e1. https://doi.org/10.1053/j.ajkd.2022.03.016
9. Cai, Q *et al*. (2022) Ultraprocessed food consumption and kidney function decline in a population-based cohort in the Netherlands. The American Journal of Clinical Nutrition, Volume 116, Issue 1, July, Pages 263–273, https://doi.org/10.1093/ajcn/nqac073
10. Chen, J. *et al*. (2022). Intake of ultra-processed foods is associated with an increased risk of Crohn's disease: a cross-sectional and prospective analysis of 187,154 participants in the UK Biobank. Journal of Crohn's and Colitis, jjac167, https://doi.org/10.1093/ecco-jcc/jjac167
11. Li, M. & Shi, Z (2022). Association between Ultra-Processed Food Consumption and Diabetes in Chinese Adults—Results from the China Health and Nutrition Survey. Nutrients, 14(20), 4241; https://doi.org/10.3390/nu14204241
12. Wang, L. *et al*. (2022) Association of ultra-processed food consumption with colorectal cancer risk among men and women: results from three prospective US cohort studies. BMJ 2022; 378. https://doi.org/10.1136/bmj-2021-068921
13. Hao, J. *et al*. (2022). Association between Ultra-Processed Food Consumption and Frailty in American Elder People: Evidence from a Cross-Sectional Study. Journal of Nutrition, Health & Aging 26, 688–697. https://doi.org/10.1007/s12603-022-1824-6
14. Figueiredo, N. *et al*. (2022). Ultra-processed food intake and eating disorders: Cross-sectional associations among French adults. Journal of Behavioral Addictions. Volume 11: Issue 2. https://doi.org/10.1556/2006.2022.00009
15. Dos Santos Costa, C. *et al.* (2022). Consumption of ultra-processed foods and growth outcomes in early childhood: 2015 Pelotas Birth Cohort. British Journal of Nutrition, Sep 12;1-8. https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/abs/consumption-of-ultraprocessed-foods-and-growth-outcomes-in-early-childhood-2015-pelotas-birth-cohort/9ACE11E8E7CD2D8BC14AB7D6620E22EF
16. Martins Soares, M. *et al*. (2022). Maternal and child characteristics correlated with frequency of consuming ultra-processed food by children aged 6 to 24 months old. Revista Brasileira de Saúde Materno Infantil, 22 (2) Apr-Jun. https://doi.org/10.1590/1806-9304202200020010
17. Dos Santos Costa, C. *et al.* (2022).
18. Zhang, Z. *et al*. (2022). Relationship Between Ultraprocessed Food Intake and Cardiovascular Health Among U.S. Adolescents: Results From the National Health and Nutrition Examination Survey 2007–2018. Journal of Adolescent Health, VOLUME 70, ISSUE 2, P249-257, https://doi.org/10.1016/j.jadohealth.2021.09.031
19. Handakas, E. *et al*. (2022). Metabolic profiles of ultra-processed food consumption and their role in obesity risk in British children. Clinical Nutrition, VOLUME 41, ISSUE 11, P2537-2548, https://doi.org/10.1016/j.clnu.2022.09.002
20. Karlsen, T.H. *et al*. (2022). The EASL–Lancet Liver Commission: protecting the next generation of Europeans against liver disease complications and premature mortality. THE LANCET COMMISSIONS, VOLUME 399, ISSUE 10319, P61-116, JANUARY 01. https://doi.org/10.1016/S0140-6736(21)01701-3
21. Parnham, J.C. *et al*. (2022). The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. Nutrients, 14(14), 2961; https://doi.org/10.3390/nu14142961.
22. Colombet, Z. *et al*. (2022). OP12 Social inequalities in ultra-processed food intakes in the United Kingdom: A time trend analysis (2008–2018). Journal of Epidemiological & Community Health;76:A6-A7. http://dx.doi.org/10.1136/jech-2022-SSMabstracts.12
23. Lauria, F. *et al*. (2021) Ultra-processed foods consumption and diet quality of European children, adolescents and adults: Results from the I.Family study. Nutrition, Metabolism and Cardiovascular Diseases Volume 31, Issue 11, 28 October, Pages 3031-3043. https://doi.org/10.1016/j.numecd.2021.07.019
24. Rauber, F. *et al*. (2020) Ultra-processed food consumption and risk of obesity: a prospective cohort study of UK Biobank. European Journal of Nutrition, 60, 2169–2180 (2021). https://doi.org/10.1007/s00394-020-02367-1

References

25. Chang, K. *et al.* (2021). Association Between Childhood Consumption of Ultraprocessed Food and Adiposity Trajectories in the Avon Longitudinal Study of Parents and Children Birth Cohort. JAMA Pediatrics;175(9):e211573. https://jamanetwork.com/journals/jamapediatrics/article-abstract/2780512

26. Leffa, P.S. *et al.* (2020). Longitudinal associations between ultra-processed foods and blood lipids in childhood. British Journal of Nutrition, 124(3), 341-348. https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/longitudinal-associations-between-ultraprocessed-foods-and-blood-lipids-in-childhood/018FA8A12F361A77F7C29F462B9933F8

27. Chang *et al*. (2021).

28. Gomes de Oliveira, P. *et al.* (2022). Impacts of Consumption of Ultra-Processed Foods on the Maternal-Child Health: A Systematic Review. Frontiers in Nutrition, 13 May. https://doi.org/10.3389/fnut.2022.821657 and Morales Cascaes, A. *et al.* (2022). Ultra-processed food consumption and dental caries in children and adolescents: a systematic review and meta-analysis. British Journal of Nutrition, 1-10. https://pubmed.ncbi.nlm.nih.gov/35894293/

29. Soil Association. (2021). Ultra-Processed Planet - The impact of ultra-processed diets on climate, nature and health (and what to do about it). https://www.soilassociation.org/media/23032/ultra-processed-planet-final.pdf [Accessed 01/12/22]

30. Soil Association. (2020). Ultra-Processed Foods – The Case for Rebalancing the UK Diet. https://www.soilassociation.org/policy-reports/ [Accessed 01/12/22]

31. Connors, C. *et al.* (2022). The UK Public's Interests, Needs and Concerns Around Food - Qualitative and Quantitative Evidence on Public Interests, Needs and Concerns around Food across the UK. https://www.food.gov.uk/sites/default/files/media/document/The%20UK%20Public%27s%20Interests%20Needs%20and%20Concerns%20around%20Food%20-%20Main%20UK%20report.pdf

32. Department for Environment, Food & Rural Affairs. (2022). Policy Paper – Government Food Strategy. 13 June. https://www.gov.uk/government/publications/government-food-strategy/government-food-strategy [Accessed 01/12/22]

33. Campbell, D. (2022). "Liz Truss could scrap anti-obesity strategy in drive to cut red tape". The Guardian, 13 September. https://www.theguardian.com/politics/2022/sep/13/liz-truss-could-scrap-anti-obesity-strategy-in-drive-to-cut-red-tape [Accessed 01/12/22]

34. Quinn, I. (2022). "Scottish government rejects calls to pause HFSS promotions ban". The Grocer, 7 September. https://www.thegrocer.co.uk/health/scottish-government-rejects-calls-to-pause-hfss-promotions-ban/671197.article [Accessed 01/12/22]

35. Welsh Government. (2022). Healthy weight strategy (Healthy Weight Healthy Wales). 11 July. https://gov.wales/healthy-weight-strategy-healthy-weight-healthy-wales [Accessed 01/12/22]

36. Wall, T. (2022). "Children pushed to eat junk food over holidays by UK government campaign". The Guardian, 24 July. https://www.theguardian.com/food/2022/jul/24/children-junk-food-holidays-uk-government-campaign-supermarket-deals [Accessed 01/12/22]

37. Food Engineering. (2021) "2021 Top 100 Food & Beverage Companies". https://www.foodengineeringmag.com/2021-top-100-food-beverage-companies [Accessed 01/12/22]

38. Debras, C. *et al*. (2022). Artificial sweeteners and risk of cardiovascular diseases: results from the prospective NutriNet-Santé cohort. BMJ; 378. https://doi.org/10.1136/bmj-2022-071204

39. NHS. (2022). Healthier Snacks for Kids. https://www.nhs.uk/healthier-families/food-facts/healthier-snacks/ [Accessed 01/12/22]

40. Monteiro, C.A. *et al.* (2017). Household availability of ultra-processed foods and obesity in nineteen European countries. Public Health Nutrition, 21(1), 18-26. https://www.cambridge.org/core/journals/public-health-nutrition/article/household-availability-of-ultraprocessed-foods-and-obesity-in-nineteen-european-countries/D63EF7095E8EFE72BD825AFC2F331149

41. Public Health England. (2018). "PHE launches Change4Life campaign around children's snacking". GOV.UK, 2 January. https://www.gov.uk/government/news/phe-launches-change4life-campaign-around-childrens-snacking [Accessed 01/12/22]

42. Smail, J. (2021). "Pladis report: biscuit sales hit nearly £3bn in 2020". Food Manufacture, 25 March. https://www.foodmanufacture.co.uk/Article/2021/03/25/Top-ten-UK-biscuit-brands-named-as-2020-sales-near-3bn# [Accessed 01/12/22]

43. Ethical Consumer. (2022). United Biscuits. https://www.ethicalconsumer.org/company-profile/united-biscuits [Accessed 01/12/22]

44. Ethical Consumer Magazine. (2022) Jan/Feb.

45. Bhavnani, S. (2021). Biscuits. https://www.ethicalconsumer.org/food-drink/shopping-guide/biscuits [Accessed 01/12/22]

46. Ethical Consumer. (2022). Weetabix. https://www.ethicalconsumer.org/company-profile/weetabix-ltd [Accessed 01/12/22]

47. Turner, J. (2018). Cereal. https://www.ethicalconsumer.org/food-drink/shopping-guide/cereal [Accessed 01/12/22]

48. Owens, J. (2020). Soft drinks. https://www.ethicalconsumer.org/food-drink/shopping-guide/soft-drinks [Accessed 01/12/22]

49. Ethical Consumer. (2022). The Coca-Cola Company. https://www.ethicalconsumer.org/company-profile/coca-cola-company [Accessed 01/12/22]

50. Chang, *et al*. (2021).

To find out more visit:

www.soilassociation.org

Soil Association
Spear House, 51 Victoria Street, Bristol BS1 6AD
T 0300 330 0100
Registered charity no. 206862

Do you need this in an alternative format?

If you require this document in an alternative format, please email digitalteam@soilassociation.org to request a copy.