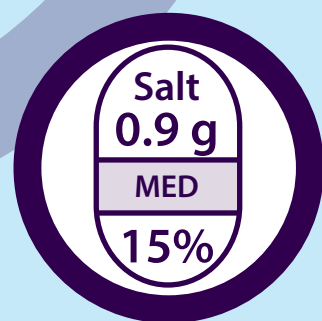


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# *Do we have free choice over what we eat?*



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# Mary-Anne Chapman Food vlogger



Industrialisation lets us mass produce food and ship it worldwide. Other people sow it, grow it, harvest it, even cook it.

It frees up so much time. Just go to the supermarket and look how much choice there is – incredible! We can even eat what we want and optimise our health. Too many carby crisps? Add a protein shake! Too much caffeine? Swap for a mushroom coffee! The power we have is immense. Calories are just Calories, afterall: a measure of the energy content of food. What can they even tell us? Current legislation allows for a 20% margin of error in the Calories reported on packages.

**Fact:** A Calorie is the energy it takes to make 1 kg of water 1 °C hotter.

**Issue:** Taking vitamins doesn't seem to work as well as eating foods containing them – scientists aren't sure why.

**Question:** Do you know where and how your food is produced?

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# ***Enele Tua***

## ***Samoan Rugby player***



Because I play sport, I am surrounded by people who eat healthily, so I eat healthily. I come from Samoa, where fast food arrived in 1996, displacing local food cultures. Now when I visit, I see my family eating fast food, and getting health problems like strokes, diabetes, heart disease, cancer, dementia... These are “commerciogenic diseases”: caused by companies advertising aggressively and saturating the options available with unhealthy food. If it’s easy to get, cheap, and everyone eats it – why would you go anywhere else?

**Fact:** Scientists think some diseases are “epigenetic” – caused by interactions between our genes and environmental factors like food.

**Issue:** 1.2 million people in the UK lack access to affordable, healthy food.

**Question:** What is the food environment like around you?

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# Harriet Furuta Microbiologist



**Biology subtly controls what we eat: we don't even notice! The foods we choose change the hormones we release, and these then control what we eat, how much, and when. So does the microbiome – microbes in our digestive system that help us break down food. Healthy people have diverse microbiomes, but if you eat a restrictive diet, e.g. a keto diet, raw vegan diet, or lots and lots of burgers, some kinds of microbe die off. This change to gut microbes has been linked to allergies, bowel disease, chronic fatigue... We don't know why.**

**Fact:** Processed foods can disrupt hunger cues – for example, we can drink much more orange juice than eat whole oranges.

**Issue:** Avoiding processed foods may lead to more restricted diets.

**Question:** How do you escape a “cycle” of poor diet?

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# *Alex Whit* *School student*



I wanted a plant-based diet, but my parents insist I won't get enough protein without meat. The supermarket bakery pumps fake scents out onto the street, so you can always smell warm bread and chocolate outside our house. I think my parents fall for it too much. They're always pushed for time, and it's an easy option. In school, they teach us to eat healthy, then in the canteen we choose between pizza and chips. Adults exhaust me.

**Fact:** The last part of our brains to develop, in our 20's, is the prefrontal cortex, which manages decision making and self-control – needed for making sensible food choices.

**Issue:** UK school meals are held to health standards, through which fat, salt and sugar are restricted, but many canteens still serve processed meats, pizza, and chips.

**Question:** Is educating people about healthy eating enough?

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# Pat Connor Diabetic



I have Type I diabetes, but have free will to choose foods that don't make

me sick. Every food choice matters. It's exhausting!

But if I can do it, anyone can. Most people eat lazily. If they were as motivated as me, they would make better choices.

We only think we're not in control because people don't want to work hard – they mix up intentions and actions and say they're healthier than they are. This reporting bias makes it really hard to study eating habits.

**Fact:** Type I diabetes is a metabolic disease, often inherited, where your body doesn't make the hormone insulin that helps turn sugar into energy. Eating sugar, carbs, and taking insulin is a delicate balance.

**Issue:** People make around 220 food-related decisions each day, leading to 'mindless autopilot' when it comes to food choices.

**Question:** Is resisting foods we crave long-term sustainable?

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# ***Ben Beaton***

## ***23-year old farmer***



**Agriculture is transforming. Shifting from growing big fields of single crops to small amounts of many crops boosts resilience and biodiversity. Organic farming can't yield enough food for our world – but we can use pesticides less.**

This means less pesticides in food, and it will protect pollinators like bees, which in turn protects the diversity of food we can grow. Soil health science can help us plant sustainably, and GM (genetic modification), in countries that allow it, can increase disease resilience or supplement diets.

**Fact:** GM golden rice produces its own beta-carotene, providing vital vitamin A for people who don't get enough.

**Issue:** The average UK farmer is 59 years old – towards the end of their career, they are less keen to take risks.

**Question:** Will GM golden rice reduce the diversity of rice we choose?

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# *Leo Sturgeon*

## *Full time parent*



Food technologists do everything to make food ultra palatable, easily digestible, and attractive, adding fake colours to burgers to lure you, and creating packets with cartoons. My 2-year-old tantrums to get those dinosaur snacks. The pressure is immense. I don't even know how much is okay because serving sizes are for adults, not children! My 10-year-old has an "overbite" – a jaw too small for his face, caused by less fibre in the diet. He likes to drink fizzy drinks, we have tried sweeteners, but they just make him want to snack. I am not in control.

**Fact:** We have smaller jaws than our ancestors just 100 years ago because we do less chewing.

**Issue:** Sweeteners tell your body to expect sugar – so it produces insulin. When sugar doesn't come, too much insulin makes you crave sugar, making it harder to resist sweets.

**Question:** Is it ethical to market to children?

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# ***Sara Orin***

## ***Supermarket manager***



**Cost affects what we eat. As a society, we have the power to change what's affordable. So, let's tax junk, and subsidise nutritious food to make it cheaper, so those with less don't need to turn to junk. Fight temptation, and reduce social inequalities! Just look at the sugar tax! We taxed sugar, and companies put less in soft drinks. And the group who had the biggest drop in sugar consumption were from areas of high deprivation.**

**Fact:** After 1 year, sugar tax meant children ate 5 g less per day and adults nearly 11 g on average.

**Issue:** Taxing sugar has increased the amounts of sweeteners added to food – is this okay?

**Question:** Is it ethical to tax some foods – like biscuits – but not others – like cake? What if they are essentials?

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