

CALORIES ON MENUS MAY LEAD TO LESS NUTRITIOUS CHOICES

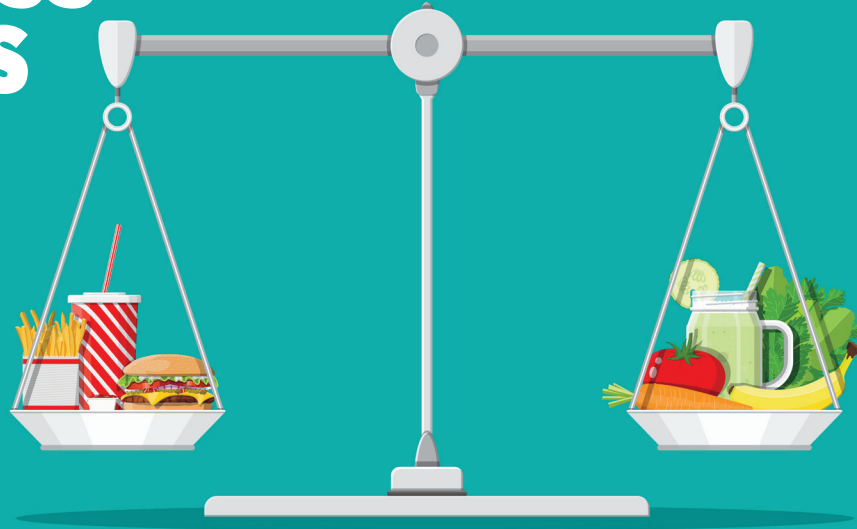


Image: Abscent © www.123rf.com

With a government directive set to put calorie counts on more menus, *Hatty Willmoth* looks at whether it's a move that will help or hinder efforts to improve the nation's health

Calories: for decades they have been a fundamental foundation for healthy eating. Keep to the golden 2,500 for men and 2,000 for women, and you can't go wrong.

Or rather, that's what UK public health messaging seems to tell us, as mandatory calorie labelling is extended to all restaurants, cafes and pubs with more than 250 employees.

In May last year, Jo Churchill MP said the move was "to make it as easy as possible for people to make healthier food choices for themselves and their families".

But will counting calories make us healthier?

What are calories?

First of all, let's address the basics: a calorie is a measurement of energy. More precisely, a food calorie is the energy needed to raise the temperature of 1kg of water by one degree Celsius.

In the nineteenth century, scientists theorised that the value of all foods

IN BRIEF

- From April, all large eateries will have to display calorie information on their menus.
- Calories measure energy but say little about nutritional content.
- Prioritising calories could lead to consumers choosing sugary and processed foods over those rich in fat or protein.
- Experts say we should focus on quality whole foods instead.

could be calculated and compared. They used a device called a 'bomb calorimeter' to burn substances in a tightly sealed chamber surrounded by water. The hotter the water became, the more energy — or calories — were in the food.

Quality versus quantity

But calories are not a straightforward indicator of how healthy a food is. That's

what Dr Giles Yeo, geneticist and author of *Why Calories Don't Count*, is keen to point out.

"We may worship the calorie," he says, "but we eat food. We don't eat calories."

He describes calorie counting as a "blunt tool" that ignores the quality of food you're eating.

Calories do have their place, he says. They can be helpful when comparing different quantities of the same food. For example, 200kcal of chips is double the portion of 100kcal of chips. Also, calorie labelling does dissuade people from indulging in high-calorie treats with a success rate of about 8%, according to recent studies.¹

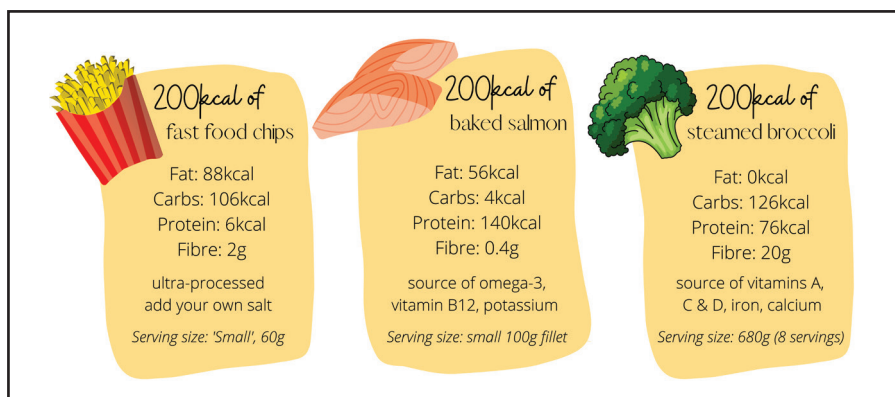
The trouble arises when we use calories to compare different types of foods, for example, 200kcal of chips with 200kcal of salmon.

"When we eat food," Yeo explains, "our body works harder or less hard to pull the calories out, which is why it does make a difference if you're eating a carrot, a doughnut or a steak.

"Protein is chemically the most complex of our three macronutrients, so a calorie of protein makes you feel fuller than a calorie of fat, than a calorie of carb, in that order. The reason behind that is a) protein takes longer

WHY KCAL?

In scientific terms, 1 calorie is the amount of energy needed to raise the temperature of 1g of water by one degree Celsius. Calories, as used on food labels, are 1,000 times bigger than this, so are referred to as kilocalories or kcals.



“There are many foods which are lower in calories but may be less healthful than their alternatives. Take reduced-calorie, processed biscuits for example. They may not contain many calories because they’re low in fat, but they will likely contain lots of sugar to compensate – less fatty foods don’t taste as good!”

to digest because it’s more complex, complicated, and b) it takes more energy to metabolise. So for every 100 calories of protein you eat, you are only ever able to extract and use 70 calories. Thirty per cent of the protein calories you eat is spent in handling protein, and therefore protein makes you feel fuller, so food that has more protein makes you feel fuller and is a higher-quality food.

“The same effect is seen with fibre, except we can’t digest fibre at all, but it has the same effect of making us feel fuller because it travels through our gut, and it also slows the release of carbohydrates from food.

“Ultra-processed foods are inherently lower in protein and lower in fibre, because of the processing that it has gone through, and they are usually higher in salt, sugar and fat.”

That’s why Yeo wants to see food labels carry information on amounts of protein and fibre, as well as sugar. By focusing on this, he says, we would improve our diets.

“Clearly we need to eat less if we want to lose weight,” says Yeo. “There are no two ways about it. It’s physics. But what we eat matters more than the calories.

“Stripped of any detail, calories mean very, very little.”

Low calorie ≠ good

There are other potential problems with focusing on calories. Kate Delmar-Morgan, head of clinics at the Institute for Optimum Nutrition, says calorie counting “ultimately fosters a poor relationship with food” because it’s biased against high-fat foods and in favour of starchy and sugary

replacements.

“There are many foods,” she says, “which are lower in calories but may be less healthful than their alternatives.

“Take reduced-calorie, processed biscuits for example. They may not contain many calories because they’re low in fat, but they will likely contain lots of sugar to compensate — less fatty foods don’t taste as good!

“This would mean these biscuits could be relatively low in calories but high in sugar and therefore detrimental for blood glucose and inflammation. Large enough quantities could cause metabolic changes like weight gain and insulin issues.”

Calorie counts could, Delmar-Morgan says, “dissuade a customer from choosing a healthier option”.

She says the government should focus on education rather than labels. Teaching people about balanced meals and whole foods would be “a more sensible approach for combating obesity and related diseases”.

Messy maths

As if that wasn’t enough to take in, there are a host of other reasons why we can’t trust calorie counts.

Calories are a messy business. Miscalculations are commonplace and can be persistent, such as the calorie count of walnuts, which was inflated by 20% for decades, until it was realised that not all of the fat they contain is released when you eat them.²

In fact, accurate calorie maths is so tricky that Professor Tim Spector, an epidemiologist based at King’s College London, writes that the actual calorific content of a meal can deviate by as much as 200% from the number

DISORDERED EATING

Much of the backlash against calorie labelling, especially on social media, has focused on how it will affect people with eating disorders.

Tom Quinn, director of external affairs at the UK’s eating disorder charity Beat, says they are “disappointed” at new legislation.

Quinn says: “We know from the people we support that including calories on menus causes anxiety and distress for those affected by eating disorders, and can contribute to harmful behaviours and thoughts getting worse.

“For instance, calorie counting can cause people with binge eating disorder to experience guilt and distress, and people with anorexia can become more fixated on restricting their food intake.”

With more people relying on eating disorder support than ever before, Quinn says: “It’s essential that the government considers the health and wellbeing of the 1.25 million people in the UK with an eating disorder at every stage of creating new health policies.”

Beat adds: “If you’re worried about your own or someone else’s health, you can contact Beat, the UK’s eating disorder charity, 365 days a year on 0808 801 0677 or beateatingdisorders.org.uk.”

displayed on a menu, and “restaurants nearly always underestimate the amount”.²

Recommended daily calories are also problematic because we’re all so different. Our genes, activity level, gut makeup, age, sex, ethnicity and size all affect how many calories our bodies need, so there’s no reason to stick to the standard 2,000-2,500 a day.

What this shows is that calorie labelling might encourage people to make low-calorie choices, but not necessarily healthier ones. Counting calories is a simple way to judge a food’s energy content, but doesn’t tell us much else. Although numbers may be easy to understand, they hide nuance and can create the illusion of health where little exists, at the expense of good, nutrient-rich whole foods.

References:

1. Crockett RA et al (2018), *Nutritional Labelling for Healthier Food or Non-alcoholic Drink Purchasing and Consumption*, Cochrane Database Syst Rev. 27;2:CD009315, extracted from Yeo G (2021) *Why Calories Don’t Count: How we got the science of weight loss wrong*, Orion Spring.
2. Spector T (2020) *Spoon-Fed: Why Almost Everything We’ve Been Told About Food is Wrong*, Penguin Random House.

Enjoyed reading this article?

Subscribe and read the full digital magazine for free at ion.ac.uk/digital

