



Pfeifer & Langen

04

Sweet Science

Sugar & Policy

Sugar Knowledge for Nutrition Professionals



Sugar is an integral part of our diet and at the same time a central point of debate in nutrition policy. Whether it's soda, chocolate bars, or breakfast cereals: many public health measures aim to reduce sugar consumption. The ideas range from sugar taxes and advertising bans to the Nutri-Score labeling system and food reformulation. But do such bans and regulations automatically lead to healthier eating habits? Nutrition professionals know: It's not that simple. Foods can't just be labeled "good" or "bad.". It depends on the context, and, above all, the quantity. A balanced diet means variety, not exclusion.

Sugar Tax – High Effort, Little Impact

Taxes on sugar-sweetened beverages are often cited as a way to influence eating behavior through pricing. However, implementing such policies is a challenge – both practically and socially.

After the introduction of a sugar tax on soft drinks in the UK, sugar consumption from these beverages decreased by about 5 grams per day among adults. That equates to a reduction in energy intake of only 20 kcal per day² – roughly the amount in three strawberries. A noticeable effect on body weight is unlikely.

Much of this sugar reduction wasn't due to changes in consumer behavior, but rather to reformulation – often involving the use of sweeteners. In the UK, sales of drinks with less than

5 g of sugar per 100 ml increased significantly, along with sweetener consumption.³ Yet the WHO advises against using non-sugar sweeteners for the prevention of non-communicable diseases.⁴

Despite such measures, countries like the UK and Mexico have not seen a decline in overweight and obesity rates. On the contrary, the prevalence continues to rise.^{5, 6} This highlights that reducing sugar intake by just a few grams per day is not enough to solve a complex issue like obesity.

Moreover, many assumptions about the effectiveness of sugar taxes are based on modeling rather than real-world data. There is still no clear evidence of long-term public health benefits.⁷

Advertising Bans – Not a Solution to Complex Nutrition Issues

Many initiatives aim to restrict advertising of products high in sugar, fat, or salt, particularly those targeting children. The goal is to prevent advertising from shaping eating behavior.

It's undisputed: Children and adolescents are susceptible to advertising, as colorful packaging, mascots, or animations are appealing. However, studies show no direct link between food advertising and the increase in childhood obesity.⁸

The family environment is much more important. Research shows that parents have a significant influence on their children's food preferences, especially in early childhood when they largely control their diet.⁹

Advertising Bans Based on Nutrient Profiles

Many planned advertising restrictions are based on so-called nutrient profiles, such as those developed by the WHO. These models define thresholds of sugar, salt, or fat beyond which products may no longer be advertised.¹⁰

According to the WHO, for example, sweets may only be advertised to children if they contain no sugar. This effectively makes reformulation impossible. Furthermore, sweets can also be part of a balanced diet. Blanket advertising bans complicate nuanced, real-life nutrition communi-



Did you know? Advertising bans often rely on nutrient profiles, but these are controversial: Experts question their scientific validity.

cation. Experts criticize these thresholds as impractical, arguing that they are not uniformly based on scientific evidence, but rather politically determined.

Media Literacy Instead of Media Bans

Advertising restrictions on television don't necessarily lead to less advertising. Instead, marketing is shifting to harder-to-control platforms like social media and influencers. That's why media literacy is key. Children and adolescents must learn to recognize and critically assess advertising – regardless of the platform.

Another factor is psychological reactance: The forbidden becomes attractive. What happens when kids feel something is being withheld from them? Strict ad bans could even make certain products more appealing – like a „forbidden fruit“ effect.



Nutri-Score – When Labels Mislead

The Nutri-Score is intended to offer consumers quick and easy guidance. It's based on an algorithmic nutrient profile per 100 g of product – regardless of how much is actually eaten or how it's prepared. A product may receive a favorable score even if it's deep-fried in oil at home, which would significantly worsen its profile. The system also shows its limits when it comes to sugar: No one eats 100 g of pure sugar at once, yet that's how it's evaluated. Products should therefore not be judged solely by the Nutri-Score.

Studies show that while people notice the Nutri-Score when shopping, it has no clear effect on nutrient intake or calorie consumption. Many find it difficult to interpret – especially without background knowledge of serving sizes or nutritional values. Green doesn't always mean “healthy,” and red doesn't always mean “bad.”¹¹

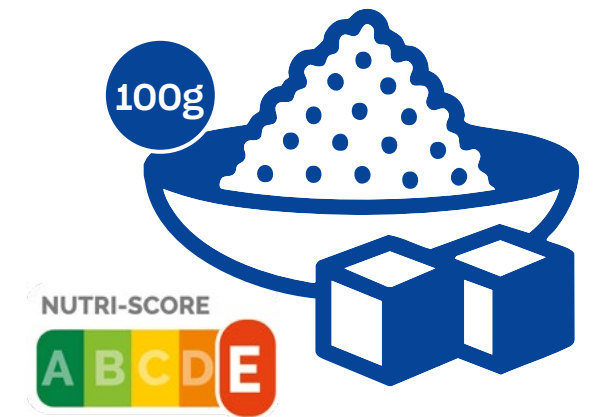
It is rightly criticized that, faced with the multitude of labels, consumers often feel more confused than supported. So far, there has been no systematic assessment of whether labeling systems are understood and used in everyday life.¹²

One thing is clear: education is key. While Nutri-Score can provide rough orientation, it does not replace nutrition knowledge – and can even be misleading.

Reformulation – Less Sugar, But Not Automatically Healthier

Many manufacturers are reducing sugar content voluntarily or under political pressure, aiming to make high-calorie products healthier without compromising taste.

But this approach is complex. Reducing or removing sugar, a functional ingredient, affects more than sweetness: it alters texture, taste, shelf life, and appearance. To compensate, reformulations often include sweeteners, fats, stabilizers, or other carbohydrates. As a result, calorie content may barely change or even increase.



Real-world example: Sugar receives a red E on the Nutri-Score because the rating is based on 100 g. That's misleading: Nobody eats 100 g of pure sugar at once.



Sweet Science 02:
The Versatile Sugar



What Does Really Help?



Sugar taxes, ad bans, Nutri-Score, reformulation – many public health strategies attempt to steer food choices. But lasting changes in eating behavior don't come from bans or simplified labels – they come from knowledge, understanding, and practical application.

Nutrition must be learned – early in life, in real-world contexts, and tailored to the individual. Those who understand how balanced eating works can make informed, independent choices – not through paternalism, but with focus on what truly matters: overall intake, the joy of eating, and food variety.



Sweet Science 03:
The Truth About Sugar

What's needed is not symbolic politics, but investment in nutrition education, qualified counseling, and transparent communication. That way, sugar – like many other foods – can maintain its place in a balanced diet: consciously chosen, enjoyed in moderation, and not indiscriminately condemned.



Tips for Nutrition Counseling

- ✓ **Keep the big picture in mind:** Don't isolate individual nutrients – consider the entire diet in daily life.
- ✓ **Encourage role modeling:** Support parents in setting a positive example through their shopping and eating habits.
- ✓ **Put Nutri-Score into perspective:** Discuss and explain the traffic light system – green doesn't automatically mean “healthy,” red doesn't mean “forbidden.” Context is key.
- ✓ **Question “less sugar” claims:** Analyze reformulated products together. Were sweeteners, fats, or other energy sources added?
- ✓ **Promote understanding:** Explain nutrition instead of judging it. Those who know the basics can make informed decisions for a balanced diet.

Sources (as of 04/2025): ¹ WHO; 2024; Fiscal policies to promote healthy diets; ISBN: 978-92-4-009101-6. ² Rogers N. T. et al.; 2024; DOI: 10.1136/jech.2023-221051. ³ UK Government; 2022; <https://www.gov.uk/government/publications/sugar-reduction-programme-industry-progress-2015-to-2020>. ⁴ WHO; 2023; Use of non-sugar sweeteners – Guideline; ISBN: 978-92-4-007361-6. ⁵ NHS England; 2022; <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2022-part-2>. ⁶ Campos-Nonato I. et al.; 2023; DOI: 10.21149/14809. ⁷ WHO; 2022; WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets; ISBN 978-92-4-005629-9. ⁸ ZAW; 2024; <https://zaw.de/fakten-lebensmittelwerbung>. ⁹ eufic; 2012; <https://www.eufic.org/de/gesund-leben/artikel/einfluss-der-eltern-auf-lebensmittelvorlieben>. ¹⁰ WHO; 2023; <https://iris.who.int/handle/10665/366328>. ¹¹ Gréa C. et al.; 2025; DOI: 10.1186/s12889-024-21102-7. ¹² Europäischer Rechnungshof; 2024; <https://www.eca.europa.eu/de/publications/SR-2024-23>.