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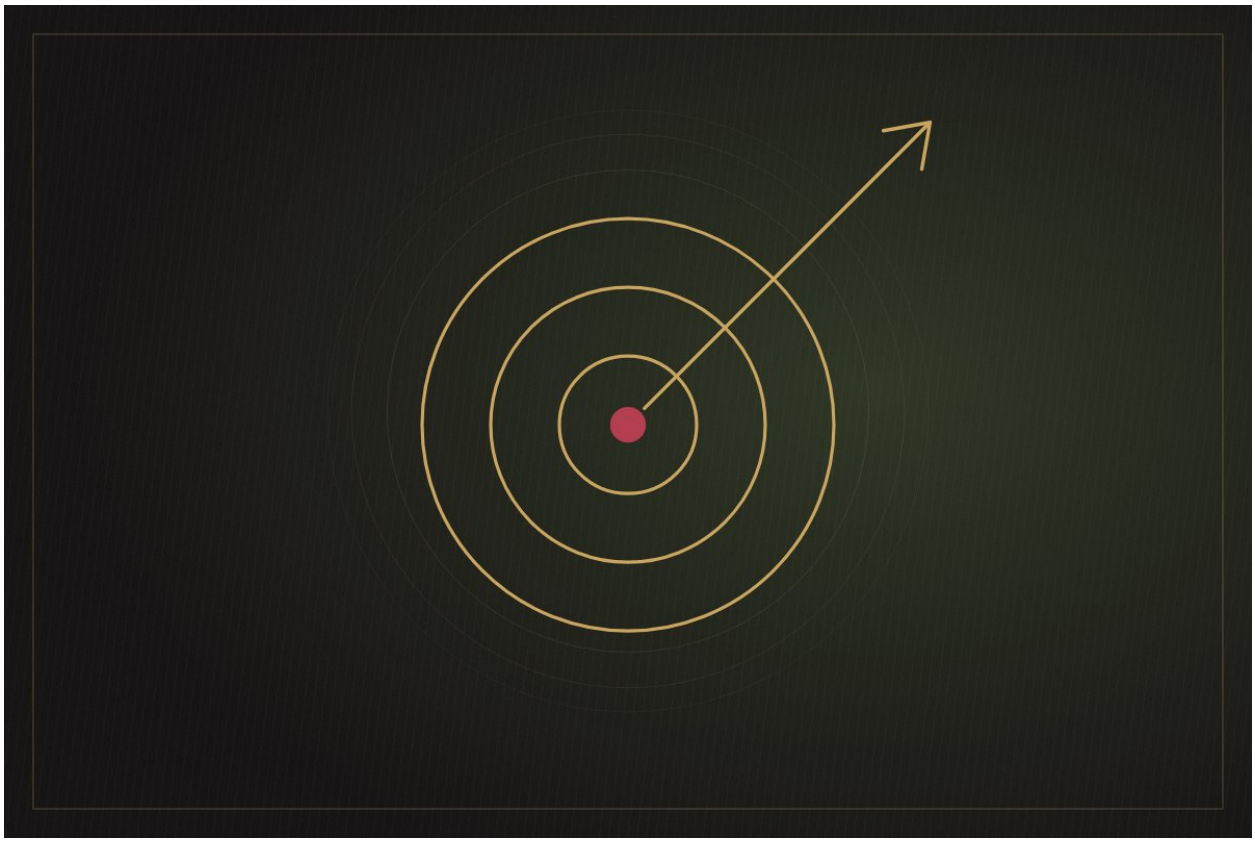
Body

Ultra-processed foods: what an experiment with 500 calories a day showed

The NOVA classification, Kevin Hall's study (2019) and how to recognise them in the shop

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Translated from the Albanian original by the editors.



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Almost every food we eat is processed in some way: bread is baked, cheese is fermented, vegetables are cut. Processing in itself is not the problem. But in recent decades another category of food has spread, which researchers call **ultra-processed**.

What they are

The NOVA classification, proposed by the Brazilian researcher Carlos Monteiro and his colleagues, divides foods into four groups. Ultra-processed foods are industrial products made mainly from ingredients we do not use in the kitchen: isolated proteins, glucose syrups, hydrogenated oils, flavourings, colourings, emulsifiers. Typical examples are fizzy drinks, packaged snacks, many breakfast cereals, industrial sweets and some ready-made meat products.

The experiment

Earlier studies had found links between high consumption of these foods and obesity, but they were observational studies. In 2019 Kevin Hall and his colleagues at the US National Institutes of Health ran a controlled experiment. Twenty adults lived for a month in a research centre. For two weeks they received an ultra-processed diet and for two weeks an unprocessed diet, in random order. The meals offered comparable amounts of calories, sugar, fat, fibre and salt, and participants could eat as much as they wanted.

On the ultra-processed diet they ate on average about **500 calories more per day** and gained weight; on the unprocessed diet they lost weight. They also ate faster. Interestingly, participants did not rate the ultra-processed meals as tastier.

> *The problem is not only what is in a food. It is also how easily it pushes us to eat more than we need.*

From Brazil to the whole world

The term "ultra-processed foods" became known thanks to the Brazilian researcher Carlos Monteiro and his team at the University of São Paulo. Around 2009 they proposed the NOVA classification, which divides foods into four groups according to the degree of processing: unprocessed or minimally processed foods, such as vegetables and milk; culinary ingredients, such as oil and salt; processed foods, such as cheese and simple bread; and ultra-processed foods, made mainly from substances extracted from foods and with many additives. In 2014 Brazil’s official dietary guidelines became among the first in the world to advise clearly against the fourth group.

What observational studies say

Besides Hall’s experiment, there are hundreds of studies that follow people over time. In 2024 Melissa Lane and colleagues pooled in the BMJ the results of dozens of meta-analyses with almost ten million participants. Higher consumption of

ultra-processed foods was linked to a higher risk of more than thirty health problems, among them heart disease, type 2 diabetes, anxiety and depression. The authors stressed that the quality of the evidence varied a lot and that these are associations, not proof of cause, but their direction was consistent.

Why we eat more

In Hall's experiment, participants on the ultra-processed diet ate faster, about 50 calories more per minute, and perhaps this prevented satiety signals from arriving in time. Their blood tests also showed changes in some hormones linked to hunger and fullness. Ultra-processed foods are often soft, easy to chew and high in calories in a small volume. All this makes it easier to eat more without noticing.

Not all the same

The ultra-processed group is broad and varied. In 2023 Reynalda Cordova and colleagues analysed data from the large European EPIC study and found that not all subgroups were linked to disease in the same way. Sugary drinks and processed meat were clearly linked to a higher risk of multiple chronic diseases, while some products, such as certain packaged breads and cereals, did not show the same link. This suggests being more careful with sugary drinks and cold cuts than with every product that has a label.

Our tradition

Traditional Albanian cooking has many processed foods in the NOVA sense, but not ultra-processed ones: white cheese, yoghurt, pickles, home-made bread, grape molasses. They are made with simple methods, from a few familiar ingredients. This does not mean they are all healthy in large amounts, since some contain a lot of salt or sugar, but it reminds us that the problem is not processing as such, but the industrial processing that creates new products from ingredients we do not find in the kitchen.

The limits

The study was small and short, and life in a research centre is not everyday life. It does not show exactly why the effect occurs: eating speed, the softness of the food and energy density are some of the possible explanations. Also, not every food classified as ultra-processed has the same effect.

How to recognise them in the shop

- **Read the ingredient list.** If it has many ingredients you would not have in your kitchen, it is very likely ultra-processed.

- **Prefer single-ingredient foods**: fruit, vegetables, pulses, eggs, fresh meat, milk, plain yoghurt.
- **Cook more often** with basic ingredients, even simple things.
- **Do not fear every package.** Plain yoghurt, frozen vegetables or beans in a jar are processed, but not ultra-processed.

Sources

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