

# The Current Debate on the Classification of Ultra-Processed Foods

The term “ultra-processed foods” (UPF) was introduced as part of the concept for the Nova food classification system (Nova) in 2009.<sup>1</sup> Concern about UPF as a global public health issue is growing.<sup>2,3</sup> Meanwhile the classification of UPF has been the focus of recent scientific and public policy debate. This debate centres on whether Nova is a valid tool to inform nutrition policy and dietary guidelines. Several key organizations have been working to address aspects of this debate on the classification of UPF.

## The NOVA Food Classification System and UPF

The Nova food classification system categorizes foods into four groups based on the extent and purpose of processing, rather than nutrient content.<sup>3,4</sup> UPF, the most processed foods in Nova, are generally made with ingredients not typically used in home kitchens that undergo a series of processes.<sup>4</sup> These are intended to enhance their flavour, texture, or appearance, and increase their palatability and shelf-life.

Nova Food Categories	Examples of Foods in Each Category
1 Unprocessed or minimally processed foods	fresh meat, poultry or fish, fresh ground meat, fresh or frozen vegetables or fruit, milk, plain yogurt, eggs, whole grains, flour, raw or dried nuts and seeds
2 Processed culinary ingredients	ingredients used to prepare meals such as vegetable oils, butter, lard, salt, spices, sugar, honey, maple syrup, vinegars, corn starch
3 Processed foods	salted, cured, smoked or dried meats, canned fish, beans, vegetables or fruit, freshly baked bread, natural cheeses, salted nuts or seeds
4 Ultra-processed foods	soft drinks, sweet and savoury packaged snacks like candy and chips, preprepared frozen dishes like pizza, sweetened or flavoured yogurts, ice cream, commercially produced breads, sweetened breakfast cereals, reconstituted meat, poultry or fish products, processed meats like hot dogs, most fast food or frozen burgers, most plant-based meat substitutes

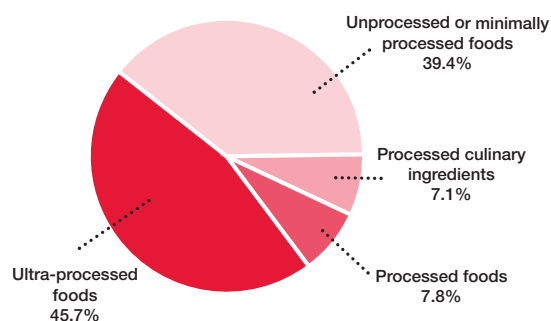
## Growing Concern about Ultra-Processed Foods

UPFs have been rapidly displacing unprocessed and minimally processed foods in countries around the globe in recent decades, including Canada.<sup>3,5</sup> Dietary patterns high in UPF have displaced those based on foods in Nova groups 1 to 3.<sup>3</sup>

Two recent reviews suggest dietary patterns high in UPF are associated with poorer diet quality and are a key driver of the growing global burden of obesity and diet-related chronic diseases.<sup>2,3,6,7</sup>

- Lancet 2025 – A systematic review found 92 of 104 studies showed the UPF dietary pattern was associated with one or more chronic disease outcomes.<sup>3,6</sup> Meta-analyses showed an increased risk of 12 of 15 adverse health outcomes, including type 2 diabetes, depression, overweight and obesity, cardiovascular disease (CVD) or CVD mortality, and all-cause mortality.

## Sources of energy (calories) in the Canadian Diet



Source: Polsky JY et al. 2020. Consumption of ultra-processed foods in Canada. Statistics Canada Health Reports.

- BMJ 2024 - An umbrella review of 45 meta-analyses concluded greater exposure to UPF was associated with a higher risk of 32 adverse health outcomes, such as CVD mortality, type 2 diabetes, mental health disorders such as anxiety and depression, and all-cause mortality.<sup>7</sup>

## Current Debate on UPF Classification

While Nova is the most widely used food classification system worldwide, there is no single universally accepted definition of UPF.<sup>8,9</sup> Debate about food classification systems focused on food processing has intensified among nutrition researchers, public policy experts, and the food industry in recent years.<sup>10-14</sup> This debate largely centres around the scientific foundations and utility of UPF classification systems.<sup>10</sup> Researchers have debated whether Nova should be used to inform nutrition policy and guidelines.<sup>11</sup>

- Proponents of the Nova system argue research shows increased intakes of UPF are associated with poor diet quality and an increased risk of diet-related chronic diseases and mortality, regardless of their nutrient content.<sup>3,11,12</sup> They cite several potential mechanisms.<sup>3</sup>
- Critics argue the Nova definition of UPF is too broad and characterizes some nutrient-dense foods as unhealthy, conflates processing with other dietary factors, adds little to existing nutrient profile systems, and lacks a clear, singular mechanism for harm.<sup>11,13,14</sup>
- Others have highlighted the need for more nuanced UPF classification systems that consider both processing methods and nutritional quality to better inform public health strategies.<sup>14,15</sup>
- Some researchers have questioned the classification of ground beef as NOVA 4, noting that grinding beef is consistent with grinding of nuts, an example of NOVA 1.<sup>16</sup>

## Recent Efforts to Address the UPF Debate

In 2025, several organizations announced key initiatives to address the UPF debate:

- The U.S. Department of Agriculture (USDA), Food and Drug Administration (FDA), and Department of Health and Human Services (HHS) are working together to develop a uniform federally recognized definition for UPF as part of efforts to combat chronic disease.<sup>9</sup> Individual states have also proposed their own UPF definitions, to guide school food policy for example.<sup>9,10</sup>
- The Institute for the Advancement of Food and Nutrition Sciences (IAFNS) convened a group of government, industry, and academic experts, as well as a writing group. In 2026, they published a set of 9 guiding principles for researchers to consider when developing, refining, and applying food classification systems focused on processing and formulation for public health policy.<sup>10</sup>
- The World Health Organization (WHO) is working to develop evidence-based global guidance on UPF consumption, expected around 2027.<sup>17</sup> The WHO and Food and Agriculture Organization (FAO) currently use the Nova food classification system to define UPF and monitor diet quality.

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