



The Complex Landscape of Ultra-Processed Foods (UPFs): Navigating Risk, Perception, and Potential Insurance Claims





A Growing Focus on Food Processing Levels

Public interest in the impact of food processing has surged in recent years, raising questions about health, safety and associated risks. Central to this debate are Ultra-Processed Foods (UPFs), which are often categorized using the NOVA classification system¹. Developed by Brazilian researchers, NOVA divides foods by processing levels, placing UPFs in the highest category, Group 4, due to their use of ingredients not typically found in home kitchens, like emulsifiers, preservatives and artificial flavours. Media and research increasingly associate UPFs with health issues such as obesity, diabetes and cardiovascular disease². For example, the British Heart Foundation notes that several studies have linked UPFs to a higher risk of high blood pressure, cardiovascular disease and early death³. However, some UPFs, like wholegrain bread, may provide nutritional value, in contrast to options like pizza.

While UPFs face intense scrutiny, minimally processed foods (NOVA Group 1) also present unique challenges, especially concerning food safety. Both ends of the spectrum reveal the complex risk landscape that could influence potential insurance claims, particularly as shifting public perceptions and biases in illness reporting may play a role. Understanding the diversity of processing levels help to provide a balanced perspective on how they intersect with food safety and consumer trust.

NOVA and the Spectrum of Food Processing

The NOVA system classifies foods into four groups:

-  **Group 1:** *Unprocessed or minimally processed foods (e.g., fresh fruits and vegetables).*
-  **Group 2:** *Processed culinary ingredients (e.g., oils, sugars).*
-  **Group 3:** *Processed foods (e.g., canned vegetables, cheeses).*
-  **Group 4:** *Ultra-Processed Foods (UPFs) (e.g., snacks, fast food, ready-to-eat meals).*

UPFs in Group 4 have come under scrutiny for their ingredients and processing methods, which are frequently associated with negative health outcomes. Whilst risks present themselves across all processing levels, the extensive ingredients lists in UPFs pose emerging risks - not just with associations to adverse chronic health conditions, but also due to their typically complex ingredient exposure. Exposure to these novel risks has exponentially increased over a short timeframe, with current estimates that UPFs comprise 60-70% of the average adult and adolescent daily calories in the UK.

Let us not overlook however that there are still risks associated at the other end of the spectrum. Less processed foods (Group 1) are also vulnerable to contamination and spoilage, which can elevate

¹ Monteiro, C.A., Cannon, G., Levy, R.B., et al. (2019). Ultra-processed foods: what they are and how to identify them. *Public Health Nutrition*, 22(5): 936-941.

² Fardet, A. (2016). Minimally processed foods are more satiating and less hyperglycemic than ultra-processed foods: A preliminary study with 98 ready-to-eat foods. *Food & Function*, 7(5): 2338-2346.

³ <https://www.bhf.org.uk/informationsupport/heart-matters-magazine/news/behind-the-headlines/ultra-processed-foods#:~:text=Several%20studies%20have%20shown%20that,heart%20attacks%20and%20strokes>

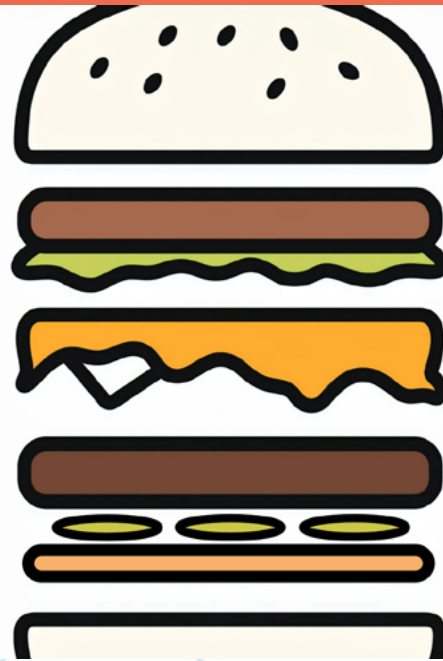
foodborne illness risks if not properly managed⁴.

Re-examining Less Processed Foods and Safety Risks

Minimally processed foods are promoted as healthier options, though they are not free from food safety issues. Raw or lightly processed products, including fresh produce, unpasteurized dairy and other raw ingredients, carry a higher risk of microbial contamination, particularly from pathogens like E. coli, Salmonella, and Listeria⁵. Such risks are especially pronounced within complex supply chains, where handling, transport and storage conditions may exacerbate contamination. We can see this in [recall data](#). Unlike UPFs, often containing stabilizing agents and preservatives, minimally processed foods (Group 1) are more susceptible to rapid spoilage (and potential pathogenicity), especially if handling or storage standards are inadequate. This can lead to recalls or health incidents, potentially resulting in insurance claims. While these foods may appear to carry lower risk due to their “natural” or “clean” label, shorter shelf lives and microbial exposure in minimal processing environments add layers of complexity to risk management.

Food For Thought

Consider a typical ‘fast food’ burger for example, the burger in its entirety may have over 50 getting close to 100 ingredients and certainly be a Group 4 product. However, if we take each component individually things are no longer as simple. For obvious example the lettuce, tomato and in many cases the burger patty itself being Group 1 or 2 at most. Often foods and food outlets can become villainised due to these broad-brush classifications. However it is an interesting thought to really dissect what goes on within each food item and the below schematic of a typical, fast-food style cheeseburger might help to illustrate this point. An interesting experiment performed by world leading athlete and expert nutritionist dives into this in much more detail and is an interesting watch⁶.



BUN	14 INGREDIENTS
BEEF	1 INGREDIENT
LETTUCE	1 INGREDIENT
CHEESE	13 INGREDIENTS
ONION	1 INGREDIENT
PICKLE	10 INGREDIENTS
SAUCE	30 INGREDIENTS

Perceived Risks of Ultra-Processed Foods (UPFs)

UPFs attract attention for their high salt, sugar and additive content, often termed with inflammatory names such as ‘Frankenstein Foods.’ While the long-term health impacts of UPFs are still under study, concerns around their nutritional value persist due to such negative connotations. However, given the controlled environments in which UPFs are manufactured, microbial contamination risks are frequently reduced. For instance, production environments for UPFs (Group 4) are typically engineered to maintain commercial sterility, with stringent regulatory oversight ensuring closely monitored ingredient interactions. The risk of pathogenic contamination in these products may therefore be deemed significantly lower.

The perception of UPFs as riskier foods may stem more from nutritional concerns than from direct food safety issues. This perception can influence consumer attitudes and could increase the number of insurance claims if health concerns are attributed to UPF consumption through elevated customer complaints and ‘perceived’ or linked illness events.⁷

⁴<https://sphr.nihr.ac.uk/news-and-events/blog/beyond-taste-and-nutrient-content-ultra-processed-foods-and-their-impact-on-adolescent-health-in-the-uk/#:~:text=In%20UK%20adults%2C%2057%25%20of,example%2C%20crisps%20or%20supermarket%20biscuits>

⁵ U.S. Centers for Disease Control and Prevention (CDC) (2023). Foodborne illness source attribution estimates for 2023.

⁶ <https://www.youtube.com/watch?v=Ey93GV-oKQY>

⁷ Campden BRI (2024). The risk matrix of food processing levels: balancing safety and nutrition.

Influence of Media and Unconscious Bias on Claims

Media portrayal of UPFs has a substantial impact on consumer behaviours. With heightened awareness of food processing concerns, such as those categorized by the NOVA system, consumers may unconsciously link adverse symptoms to UPF consumption due to the negative portrayal of these foods in public discourse. This awareness can lead to unconscious bias, potentially resulting in more insurance claims as consumers associate health complaints with UPFs regardless of actual causation.⁸ As health consciousness grows, so does the demand for transparency in food labelling and sourcing. This expectation may contribute to increased insurance claims as consumers attribute health issues to UPF consumption, whether or not this connection is substantiated. Such awareness and reporting biases suggest that UPFs (Group 4) could attract claims more readily than other groups, especially as public perception and regulatory scrutiny evolve.

The Broader Implications for Food Safety and Insurance Claims

Assessing risks across the processing spectrum reveals key considerations for food safety and potential insurance claims. Each processing level introduces distinct challenges:

- 1 Minimally Processed Foods (Group 1): These foods are more prone to contamination and spoilage, particularly products with short shelf lives or in complex supply chains with multiple handling stages. Claims here may arise from microbial contamination or inadequate storage/handling/preparation etc.
- 2 Ultra-Processed Foods (Group 4): While UPFs are often the focus of health campaigns, they are produced in controlled, regulated environments, reducing contamination risks. Claims here may stem from nutritional concerns or public perception rather than immediate or more obvious food safety issues.

The combination of actual food safety factors and shifting consumer perceptions suggests that future insurance claims may be shaped by both perceived and real risks. It is not to say that these risks have

not always been there, however reporting of such illnesses may well have been drastically underestimated up until now. Public opinion and media scrutiny play significant roles in the evolving landscape of food processing and consumer trust.



A Balanced Perspective on Food Processing Risks

The discourse around food processing and safety requires a balanced approach. Both minimally processed and UPFs bring distinct risk profiles that challenge simple risk assessments. Public awareness of food processing implications, along with evolving media attention, continues to shape consumer expectations, potentially influencing future claim patterns. For instance, UPFs may be more prone to liability claims given their broader, and increasingly evidenced, health risks. Taking a comprehensive view of risks across processing levels supports more informed understanding and responses to these complexities. In short, one risk may outweigh another but ironically become replaced by yet another!

Whether you are a company producing minimally processed foods, UPFs, or anything in between, Blu Niche can provide you with product contamination insurance cover, bespoke to your business, protecting your balance sheet from recall events.

⁸ Food Standards Agency (FSA) (2021). Understanding consumer concerns about ultra-processed foods.