Evaluating Foods by

NUTRITIONAL VALUE

Rather Than Level of Processing

A food's healthfulness is best measured by its **NUTRIENT CONTENT** and its **EFFECTS ON HEALTH**—not by its processing level. Soy foods offer **NUTRIENT DENSITY** and **HEALTH BENEFITS** regardless of **PROCESSING CLASSIFICATION.**



The contribution of a food to overall health is determined primarily by its nutrient content.

Soy provides:

- High-quality protein with all essential amino acids required to support the needs of children and adults
- Unsaturated fats including omega-6 and omega-3 that support heart health
- Fiber and key vitamins and minerals, including folate, potassium, and iron

3 SOY FOODS DELIVER PROVEN BENEFITS

Modern, processed soy foods support positive health outcomes, including promoting gains in muscle mass and strength, cardiovascular function and normal growth and development.

Soymilk – Systematic review and meta-analysis of 17 randomized controlled trials comparing the effects on health outcomes of cow's milk to soymilk showed that soymilk lowered blood pressure, low-density lipoprotein cholesterol (LDL-C) levels, and inflammation.⁵

Soy-based meat alternatives – Recent analysis found that none of the common attributes of ultra-processed foods (e.g., high caloric density, fast eating rate, fast energy intake rate, soft texture, hyper-palatable, inexpensive, and low satiety) apply to plant-based meat alternatives more so than to beef.⁶

Soy protein ingredients are prized for their functionality and nutritional benefits, often boosting the overall nutrition profile of a processed food. A considerable amount of clinical work which has examined the health effects of a range of concentrated sources of soy protein is generally supportive of a positive health impact.⁷



Soy Offers **PROVEN** Benefits

2 NOT ALL PROCESSED FOODS ARE ALIKE

Foods that fall within the same processing classification can **VARY IN NUTRIENT CONTENT** and differentially affect health outcomes.

Some subcategories of ultra-processed foods, including plant-based meat and milk alternatives, breads, and cereals, show NO HARMFUL EFFECTS or are associated with IMPROVED HEALTH STATUS.^{1,4}

While overall intake of foods commonly classified as ultra-processed has been linked to various adverse health outcomes, the primary drivers of these associations are subcategories of ultra-processed foods with low nutrient density and poor composition.

Treating tofu, soymilk, and soy-based burgers the same as candy, chips, soda, and energy drinks doesn't make sense. Unlike many ultra-processed foods, soy foods can provide important nutrients like fiber, protein, potassium and calcium.

Impossible* Burger	Calories Serving Protein Fiber Fat	230 4 oz 19g 5g 13g	Ground beef (80/20)	Calories Serving Protein Fiber Fat	287 4 oz 19g 0g 23g
Morningstar Grillers®	Calories Serving Protein Fiber Fat	140 64 g 16 g 3 g 6 g	Tofu	Calories Serving Protein Fiber Fat	144 00 g 17 g 2 g 9 g
Silk Soymilk	Calories Serving Protein Fiber Fat	110 1 cup 8 g 2 g 4.5 g	Whole milk	Calories Serving Protein Fiber Fat	149 1 cup 8 g 0 g 8 g

AVOID OVERSIMPLIFYING DIETARY GUIDANCE

All foods - including soy foods - are complex mixtures of nutritive and non-nutritive bioactive compounds.

Declaring food to be healthful or unhealthful based on the degree of processing represents an overly simplistic approach to dietary guidance and ignores nutritional value and potential health benefits.

Soy foods that fall under the same level of processing classification can—and often do—differ significantly in nutrient content. They can also vary based on formulation and intended use. For example, some may be fortified with key vitamins and minerals; others provide high-quality protein and good fats. This underscores the importance of evaluating soy foods based on their nutritional profile, not solely their degree of processing.



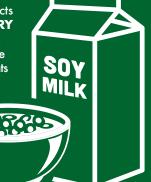
THE PROS OF PROCESSING

More highly processed foods can and do exert health benefits relative to their less processed counterparts, and these foods should not be demonized based solely on how they are produced.

Processing can enhance nutrition, safety, and access⁸:

- Nutrition: Fortification with calcium, vitamin D, fiber; benefits from pasteurization and fermentation
- Safety: Eliminates harmful bacteria, preserves nutrients
- Accessibility: Offers convenient, affordable options to meet diverse lifestyles and dietary needs
- Food Security: Provides shelf-stable, ready-to-eat items that deliver essential nutrients

Plant-based meat and dairy products are VITAL for people with DIETARY RESTRICTIONS, ALLERGIES, OR **LACTOSE INTOLERANCE.** They are also convenient sources of key nutrients for those prioritizing plant protein.



Health guidance should be based on NUTRIENT CONTENT and PROVEN HEALTH EFFECTS - NOT JUST PROCESSING LEVEL.

Soy foods are a prime example of how MODERN FOOD PROCESSING can deliver NUTRIENT-DENSE OPTIONS.







www.SNIGLOBAL.org

- 1. Chen Z, Khandpur N, Desjardins C, et al. Ultra-processed food consumption and risk of Type 2 Diabetes: Three large prospective U.S. cohort studies. Diabetes Care. 2023;46:1335-44.
- 2. Mendoza K, Smith-Warner SA, Rossato SL, et al. Ultra-processed foods and cardiovascular disease: analysis of three large US prospective cohorts and a systematic review and meta-analysis of prospective cohort studies. The Lancet Regional Health Americas. 2024;37:100859.
- 3. Dicken SJ, Dahm CC, Ibsen DB, et al. Food consumption by degree of food processing and risk of type 2 diabetes mellitus: a prospective cohort analysis of the European Prospective Investigation into Cancer and Nutrition (EPIC). The Lancet Regional Health Europe. 2024: 101043.
- 4. Li C, Zhang Y, Zhang K, et al. Association between ultra-processed food consumption and leucocyte telomere length: A cross-sectional study of UK Biobank. J Nutr. 2024;154:3060-9.
- 5. Erlich MN, Ghidanac D, Blanco Mejia S, et al. A systematic review and meta-analysis of randomized trials of substituting soymilk for cow's milk and intermediate cardiometabolic outcomes: understanding the impact of dairy alternatives in the transition to plant-based diets on cardiometabolic health. BMC Med. 2024;22:336.
- 6. Messina M, Sievenpiper JL, Williamson P, Kiel J, Erdman JW. Perspective: Soy-based meat and dairy alternatives, despite classification as ultra-processed foods, deliver high-quality nutrition on par with unprocessed or minimally processed animal-based counterparts. Adv Nutr. 2022;13:726-38.
- 7. Messina M, Perspective: Soybeans Can Help Address the Caloric and Protein Needs of a Growing Global Population, Frontiers in Nutrition, 2022; https://doi.org/10.3389/fnut.2022.909464.
- 8. Ahrné, L., Chen, H., Henry, C.J. et al. Defining the role of processing in food classification systems -the IUFoST formulation & processing approach. npj Sci Food 9, 56 (2025). https://doi.org/10.1038/s41538-025-00395-x