

THE TRUTH ABOUT **SUGAR** AND **ULTRA-PROCESSED FOODS**



What are Ultra-Processed Foods?

Ultra-processed foods (*UPFs*) are products made mostly or entirely from substances not commonly used in home cooking. These include protein isolates, modified starches, added sugars, artificial sweeteners, flavorings, and colorings. Unlike minimally processed or even conventionally processed foods, UPFs are typically engineered to be hyper-palatable, shelf-stable, and convenient.

Not all processing is harmful; freezing, drying, and pasteurizing are examples of useful food processing. But the degree and purpose of processing matters. The more a food is altered from its original form and built from industrial ingredients, the more likely it is to fall into the ultra-processed category.



Quick Clues: How to tell if a food is ultra-processed

Look for “giveaway” ingredients on the label

The presence of one or more from each of these lists identifies a product as ultra-processed.

Food substances

(These will likely be at the **beginning or middle** of the ingredients list):

- hydrolyzed proteins
- soya protein isolate
- gluten
- casein
- whey protein
- mechanically separated meat
- fructose
- high-fructose corn syrup
- fruit juice concentrate
- invert sugar
- maltodextrin
- dextrose
- lactose
- soluble/insoluble fiber
- hydrogenated oil
- interesterified oil

Cosmetic additives

(These will likely be **at the end** of the ingredients list)

- natural and artificial flavors
- flavor enhancers
- colors
- emulsifiers
- emulsifying salts
- sweeteners
- thickeners
- anti-foaming agents
- bulking agents
- carbonating agents
- foaming agents
- gelling agents
- glazing agents

Commonly used ingredients: Modified food starch, mono/diglycerides, cellulose gum, propylene glycol, stevia extract, potassium sorbate, BHT (butylated hydroxytoluene), sodium benzoate, carrageenan

CAUTION

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LABEL MATCHING GAME

(answers at end of handout)

Below are five cereals and five ingredient lists.

Draw a line to match each cereal with its correct list of ingredients.



A.

Ingredients: Milk Protein Blend (Casein and Whey Protein Concentrate), Sweetener Blend (Allulose, Monk Fruit Extract, and Stevia Extract), Oil Blend (High-Oleic Sunflower Oil and Avocado Oil), Tapioca Starch, Inulin (from Chicory Root and/or Agave), Natural Flavor, Honey, and Salt.

B.

Ingredients: Milled corn, sugar, malt flavor, contains 2% or less of salt.

Vitamins and Minerals: Iron (ferric phosphate), niacinamide, vitamin B₆ (pyridoxine hydrochloride), vitamin B₂ (riboflavin), vitamin B₁ (thiamin hydrochloride), folic acid, vitamin D₃, vitamin B₁₂.

C.

Ingredients: Whole Grain Oats, Corn Starch, Sugar, Salt, Tripotassium Phosphate. **Vitamin E** (mixed tocopherols) **Added to Preserve Freshness.**

Vitamins and Minerals: Calcium Carbonate, Iron and Zinc (mineral nutrients), **Vitamin C** (sodium ascorbate), **A B Vitamin** (niacinamide), **Vitamin B₆** (pyridoxine hydrochloride), **Vitamin A** (palmitate), **Vitamin B₁** (thiamin mononitrate), **A B Vitamin** (folic acid), **Vitamin B₁₂**, **Vitamin D₃**.

D.

Ingredients: Seven Whole Grains and Sesame blend (hard red wheat**, brown rice, barley, triticale, oats, rye, buckwheat, sesame seeds), soy flakes, brown rice syrup, cane sugar, chicory root fiber, almonds, whole flax seeds, whole grain oats, expeller pressed canola oil, honey, salt, natural flavors, mixed tocopherols for freshness.

E.

Ingredients: Corn Flour, Whole Grain Oat Flour, Cane Sugar, Oat Fiber, Unsulfured Molasses, Corn Bran, Sea Salt, Baking Soda, Vitamin C (ascorbic acid), Tocopherols (antioxidants to maintain freshness).

BONUS: Rank them from 1 (least processed) to 5 (most processed) using what you see in the ingredient lists.

1

2

3

4

5

Whole vs. Processed: A simple rule of thumb

- 1 If you can easily recognize most of the ingredients in a food by sight—like chopped nuts, oats, or vegetables—it’s likely minimally processed.
- 2 If the ingredients are things you wouldn’t find in your home kitchen or can’t picture in their natural form, it’s likely ultra-processed.



Minimally Processed:



Bowl of oatmeal, bowl of cut fruit, plate of chicken with rice and veggies

Processed:



Canned beans, whole grain bread, bag of trail mix

Ultra-Processed:



Flavored yogurts, packaged snack cakes, frozen meal with additives



Meet the speaker: Saroja Voruganti, PhD

Dr. Voruganti is a Professor of Nutrition and Director of the Clinical Research Core at the UNC Nutrition Research Institute. Her research explores how our genes and diet interact to influence the risk of chronic conditions like obesity, diabetes, and high blood pressure especially in diverse and underserved populations.

In addition to her research, Dr. Voruganti teaches courses in nutrigenomics and nutritional epidemiology and co-directs the Precision Nutrition Core at UNC’s Nutrition Obesity Research Center. She’s passionate about helping people make

sense of nutrition science so they can make more informed decisions about what they eat.

Label Matching Game Answers

Answer Key:

List A: Magic Spoon

List B: Frosted Flakes

List C: Cheerios

List D: Kashi Go

List E: Puffins

Bonus key:

5=Magic Spoon, 4= Frosted Flakes, 3=Kashi Go, 2=Cheerios, 1=Puffins

Cheerios – Original

Mostly whole grain oats with small amounts of additives(vitamin E, tripotassium phosphate). Low in sugar and minimally processed.

Puffins – Original

Short, recognizable ingredient list (corn and oat flours, molasses, sea salt, baking soda). Closest to whole foods, minimal formulation.

Magic Spoon – Honey Nut

Contains milk protein blend, allulose, inulin, stevia, monk fruit, natural flavors (highly engineered with multiple isolated ingredients and alternative sweeteners).

Frosted Flakes

Refined grains, sugar, malt flavor, BHT (preservative). Classic example of a sugary, shelf-stable ultra-processed cereal.

Kashi GO – Crunch

Whole grains, but includes soy protein isolate and natural flavor. Appears healthy but contains processing flgs.