



The Cause of the Obesity Epidemic?

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In my previous articles we looked at how fruits, vegetables, legumes, whole grains, nuts, seeds, and oily fish are the healthiest foods.[1] They reduce the risk of heart disease, stroke, obesity, type 2 diabetes, cancer, dementia, Alzheimer's disease, and chronic kidney disease. To make educated decisions about choosing healthy foods it is important to also understand the foods to avoid. Even the healthiest vegetable can be turned into a disease-promoting food with unhealthy ingredients or processing.

There are several categories of unhealthy foods. Some increase the risk of cancer, some contribute to overeating and obesity, and others increase the risk of heart disease, stroke, Alzheimer's disease and dementia. But there is one type of food that seems to increase your risk of all of these diseases. There is no controversy about how unhealthy it is. Every popular eating pattern, from vegan to carnivore, from vegetarian to paleo, from low carb to low fat, agrees you need to avoid it.

In the first half of the century most foods were prepared by combining ingredients at home into meals. Since the 1980s an \$800 billion dollar global food industry has emerged.[2] Now foods are primarily eaten as packaged, branded, ready to eat, drink, or heat prepared "fast" or "convenient" foods. Many believe this is the primary cause of the current obesity epidemic.[3] The food supply in high-income countries like the U.S., Canada, UK, and Australia are now dominated by these packaged, ready-to-consume products that have displaced healthy whole foods once cooked at home.

These products are now being referred to as "ultra-processed" foods. Classifying foods simply as "processed" is not helpful as almost all foods are processed in some way. The definition of a processed food is one that has been altered from its original form. Food processing happens in up to three stages. The first stage is ensuring the food is edible. For example, by harvesting grain, shelling nuts, or picking fruit. These are still considered "whole foods". The next level of processing is cooking, freezing, juicing, pulverizing foods into flour, pasteurizing, drying, and canning. The third level of processing is when manufacturers inject flavors, added sugar, fats, and chemical preservatives. This is where the problems arise.

The chart below highlights the stages of food processing.

Minimally processed	Processed	Ultra-processed
Corn	Canned corn	Corn chips
Apple	Apple juice	Apple pie
Potato	Baked potato	French fries
Carrot	Carrot juice	Carrot cake
Wheat	Flour	Cookies

Image: <https://www.health.harvard.edu/blog/what-are-ultra-processed-foods-and-are-they-bad-for-our-health-2020010918605>

Researchers from University of Sao Paulo, Brazil came up with a food processing classification system called Nova which has gained worldwide popularity and was adopted by the World Health Organization. However, the exact definition of ultra-processed food has changed over the years and there is still no consensus.[4] Below are some general principles to identify ultra-processed foods.

1. They are made from mostly industrial food ingredients you wouldn't find in a kitchen, such as artificial colors, modified starches, hydrolyzed proteins, soy protein isolate, gluten, casein, whey protein, fructose, high-fructose corn syrup, fruit juice concentrate, invert sugar, maltodextrin, dextrose, lactose, soluble or insoluble fiber, hydrogenated or interesterified oil, flavor enhancers, emulsifying salts, thickeners, anti-foaming, bulking, carbonating, foaming, gelling and glazing agents, flavorings, natural flavors, artificial flavors, and artificial sweeteners like saccharin, aspartame, cyclamate, and sucralose.

Often their names are followed by their class, such as “monosodium glutamate (flavor enhancer)”, “caramel color”, or “soy lecithin as emulsifier”.

2. They are so processed, by pureeing, grinding, and other methods, that they lose the physical identity of their unprocessed ingredients and contain little to no intact whole foods.

3. They have added sugar, salt, or fat (such as oil, cream, or butter) to enhance flavor and preservation.

4. They often contain refined flour, such as wheat.

5. They usually have five or more ingredients.

6. They are often sweet, fatty, or salty snack foods and promote mindless eating.

Studies have found ultra-processed foods are high in added sugar, saturated fat, trans fat, sodium, and calories.[5] They are low in protein, fiber, potassium, and other vitamins, minerals, and phytonutrients.[6] Ultra-processed foods are associated with increased rates of obesity, cardiovascular diseases, cancer, depression, gastrointestinal disorders, frailty, and overall mortality.[7]

The purpose of ultra-processed foods is to create highly profitable products. Food companies design

them to be hyper-palatable, convenient, and to take advantage of global advertising and promotion. As Stephan Guyenet describes in his excellent book, *The Hungry Brain*, food, beverage, and restaurant companies spend about \$14 billion per year on food advertising in the U.S.[8] To put that in perspective, the National Institutes of Health spent about \$1.1 billion in total on obesity research in 2020.

Food manufacturers also spend countless dollars “optimizing” foods with just the right amount of fat, sugar, and salt to create a bliss point where the ratio of sweetness, saltiness and richness is most irresistible. This is why yogurt may have more sugar than a serving of ice cream. Breads, pasta sauces, salad dressings, soups, and breakfast bars are now typically loaded with added sugar, salt, and fats to create this bliss point. These hyper-palatable foods override the signals in our brain that normally tell us we are full and satisfied. They stimulate the brain in the same way drugs do, triggering reward pathways, and encouraging dopamine signaling of euphoria, bliss, and pleasure.[9]

Almost 60% of the calories consumed in the U.S. are from ultra-processed foods.[10] The most calories come from frozen/shelf-stable meals, candy, fruit and milk drinks, cakes, cookies, pies, soft drinks, salty snacks, and breakfast cereals. For children, most of the ultra-processed calories are in the form of snacks, pizzas, pastries, sweetened fruit juices, and ready-made Mexican dishes often eaten with flour or corn tortillas.

The following foods are considered ultra-processed unless (1) you have made it yourself in your own kitchen with individual ingredients you purchased or (2) it doesn't have any *added* sugar, *added* salt, or *added* fat.

- ready-to-eat packaged foods, like cookies, candy, donuts, breakfast cereals, breakfast bars, energy bars, granola bars, protein bars, pretzels, and tortilla/corn/potato chips
- muffins, scones, croissants, and other pastries and bakery foods
- powdered and packaged instant soups
- instant sauces
- packaged cake, muffin, pancake and other mixes
- packaged noodles and other pastas, such as ramen
- cake, ice cream, chocolate, pies, puddings, frozen yogurt, jam, and other packaged desserts
- sweetened yogurt
- pre-prepared meat, cheese, pasta, and pizza dishes
- mass-produced packaged breads, buns, bagels, pitas, tortillas, and crackers
- margarines and other spreads
- flavored nuts
- microwave popcorn
- dried fruit
- fruit snacks
- ketchup
- sugar-sweetened drinks such as soda, energy and sports drinks, flavored milk, lemonade, fruit drinks, tonic, water flavored with sugar, teas and coffees flavored with sugar or syrup, milkshakes, and frappes
- fast foods, such as burgers, chicken sandwiches, French fries, chicken (or fish) nuggets, fish sticks, and hot dogs
- deep fried foods
- frozen foods, like pizzas, sausages, patties, and frozen dinners
- “health” and “slimming” products such as meal replacement shakes and powders

Summary

In its simplest form, ultra-processed foods are packaged, mass-produced foods and snacks with ingredients not commonly found in a kitchen. They are often high in sodium, have one or more forms of added sugar, and contain refined flour or added fat. They are hyper-palatable driving you to eat beyond your hunger, and they are cheap, convenient, and accessible. You can find them at gas stations, in check-out lines, and fast foods restaurants. Think of the foods your grandmother would have called junk food.

I don't personally think about foods in terms of processing. Instead, I have four guidelines to direct me away from unhealthy foods. I try to avoid (1) foods with added sugar, (2) foods with the word "flour" in the ingredients, unless it is 100% whole grain, (3) foods with more sodium (in milligrams) than calories, (4) solid fats, such as butter, lard, ghee, coconut oil, palm kernel oil, and palm oil, and (5) red meat and processed meat.

About the Author: Keith Herman is an estate planning attorney who is also passionate about nutrition and helping others live their healthiest lives. Keith has certifications in nutrition and personal training.

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#HealthyLifestyle

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