

## Processed Foods: Are They All Bad?



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“Eat more whole foods. Avoid processed foods.” We hear this all the time. It makes sense that whole foods, such as peaches plucked directly from the tree, are healthy choices. Donuts and chips on the other hand are processed foods; while we enjoy these, we also know they aren’t the healthiest option. But these sugary and salty snacks are not the only processed foods in our diets. According to the U.S. Department of Agriculture processed foods include any food that has been changed from its natural state.[1] So, a food that has been cleaned, chopped, canned, cooked, frozen, or altered in any way is considered processed. According to this definition, a bowl of oatmeal, a cup of frozen broccoli or fresh chopped spinach, and even a fresh peach, if you wash it, are considered processed. Clearly all processed foods are not unhealthy but understanding which processed foods should be limited in your diet can be confusing.

### **The Spectrum of Processed Foods**

“Processed” is a very broad category in the world of food. Some forms of processing are beneficial; they make food safer, less perishable, more convenient, or more nutrient

dense. For example, washing removes pesticides from fruit so we don't ingest them. Canning or freezing vegetables allows us to have green beans in January because they can be stored for extended periods without spoiling. And, as anyone who has ever emptied a packaged salad mix into their bowl will attest, processed foods can make it more convenient to add a salad to your meal. Processing can also add nutrients to food: Milk has added vitamin D, a nutrient that's low in our diets, and refined grain products such as white rice and white bread have added folic acid, which helps prevent birth defects. If we eliminate these processed foods, we could reduce the variety and nutrient content of our diets.

But not all processing has our health and safety in mind. Some processing is used to make products more tempting, so we eat more, and manufacturers sell more. These highly- or ultra-processed foods contain many additives such as flavors, colorings, and preservatives. They are formulated by separating, grinding, spinning, extruding, heating, and/or cooling ingredients extracted from whole foods.[2] The extensive processing that makes these foods convenient also causes the loss of nutrients such as fiber, vitamins, and minerals. And, to enhance flavor, these foods typically have added salt, saturated fat, and/or sugars, nutrients that should be limited in a healthy diet. For example, turning a potato into potato chips creates a tasty snack, but also adds a lot of salt. Making fish into fish sticks, triples the saturated fat. A bottle of sweet tea is refreshing and easy to grab from the corner store but contains 42 grams of added sugar; more than three quarters of the amount recommended for an entire day.

### **Ultra-Processed Foods, Nutrient Intake, and Health**

It is estimated that 73% of the American food supply is made up of ultra-processed foods; reliance on these foods affects our nutrient intake and health.[3,4] The consumption of ultra-processed food is associated with lower overall diet quality as indicated by an increase in the consumption of saturated fat, salt, and added sugars, and a decrease in fiber, protein, unsaturated fat, minerals (potassium, zinc, iron, and magnesium), vitamins (including vitamins A, C, D, E, B<sub>12</sub>, and niacin), and phytochemicals.[5] In addition, consuming more ultra-processed food increases our calorie intake. A study that examined the impact of ultra-processed foods on intake found that people consume more calories when offered a diet high in ultra-processed foods.[6] This is not surprising because the salt and sugar added to these products makes them very appealing to our taste buds. Diets high in ultra-processed foods are associated with an increased risk of obesity, cardiovascular disease, high blood pressure, type 2 diabetes, cancer, gastrointestinal disease, depression, and frailty, as well as

all-cause mortality.[7,8] No study has reported an association between ultra-processed foods and beneficial health outcomes.

### **A Healthy Dietary Pattern and Ultra-processed Foods**

A healthy dietary pattern can include some ultra-processed foods as long as the pattern is built on a base of healthy whole and minimally processed foods like fresh fruits and vegetables, whole grains, legumes, nuts, milk, and fresh meats and fish.


The first step in planning your intake of ultra-processed foods is to recognize the foods that fall into this category. Ultra-processed foods generally do not resemble their original food source; cheese puffs do not look like corn or cheese. These foods often contain more than 5 ingredients and include additives and other ingredients you rarely find in your home kitchen and may not want in your diet. For example, your peanut butter may contain unhealthy hydrogenated vegetable oil. You can find all of the ingredients in a food, including added colors, flavor enhancers, preservatives, emulsifiers, and thickeners, on the ingredient list in order of prominence by weight.

You can then evaluate the nutritional contribution of your ultra-processed foods. Some, such as soda and candy, provide little in the way of nutrition besides calories, while others enhance your nutrient intake. Fortified plain soymilk, for example, fits into the ultra-processed category but is high in protein, calcium, and vitamins A, B<sub>12</sub>, and D and low in salt, saturated fat, and added sugars.

Once you can recognize ultra-processed foods, consider why you may want them in your diet; personal preferences, cooking abilities, and the amount of time and money available for preparation also influence food purchases. For example, you may choose a jar of pasta sauce rather than expending the time and effort required to buy fresh tomatoes, onions, and garlic to make your own sauce. We buy packaged vegetables, soups, cereals, and even frozen dinners because they make food preparation easier, quicker, and more convenient. These ultra-processed foods make important nutritional contributions to our diet but still allow us to prepare a quick meal when we are pressed for time. For example, fortified breakfast cereal is a fast easy breakfast when you are in a hurry in the morning. Compared with grabbing a donut on the way to work, it supplies a host of vitamins and minerals, provides fiber if it is made with whole grains, and if you add milk, your breakfast is a good source of calcium. If you are tired and hungry at the end of the workday, pulling a pre-cooked dinner out of the freezer can provide a healthier, less expensive meal than stopping for fast food on the way home. On the other hand, ultra-processed snacks and desserts, such as chips and cookies, have few

nutritional pluses but we choose them because we enjoy them. No one food can make or break your diet nutritionally so including reasonable amounts of these treats occasionally is unlikely to have a significant impact on the overall healthfulness of your diet (see Figure).

### Fitting Ultra-Processed Foods into a Healthy Dietary Pattern



Most breakfast cereals are fortified with an array of vitamins and minerals. Choose ones that contain whole grains and are not too high in added sugars.

Plant-based milks can be a good source of protein, calcium, and vitamins D and B<sub>12</sub>.

Some frozen meals are designed to meet specific needs – low calorie, low carb, high protein, plant based, etc. No matter which you choose, check the Nutrition Facts for those that contain less than 20% of the Daily Value for saturated fat and sodium.

Frozen prepared fish is a good source of protein and healthy fats but may be high in calories and sodium. Balance these with fruits and vegetables in your day's meal plan.

Canned soups make an inexpensive easy meal. Choose varieties with lots of vegetables and to balance their high sodium content limit other high-sodium foods throughout the day.

Plant-based meat alternatives provide protein, vitamins, and minerals with less saturated fat than beef or pork.

Fruit yogurts can be high in sugar but are a good source of calcium.

Protein and energy bars come in many varieties. Most are highly processed but contain added nutrients making them a better choice than a candy bar.

## Summary

While it may be healthiest to consume a diet of whole, minimally processed foods, the time, money, cooking facilities, and culinary skill required to purchase and prepare all your food from scratch make this close to impossible. Avoiding all processed foods not only makes the diet more difficult to acquire and prepare but also potentially less varied, less nutritious, and less safe. On the other hand, choosing a diet based on ultra-processed foods, is fast and easy but not good for your nutrition or health. The goal is to choose the best of both worlds. Base your diet on the freshness and purity of whole and minimally processed foods and supplement these with the convenience and variety provided by some ultra-processed choices (see Figure).

## References

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