

# The NOVA Food Classification System

The following reference was adapted from the NOVA Food Classification system, which was designed by Center for Epidemiological Studies in Health and Nutrition, School of Public Health, University of Sao Paulo, Brazil. NOVA helps people “group foods according to the extent and purpose of the processing they undergo. Food processing as identified by NOVA involved physical, biological and chemical processes that occur after foods are separated from nature, and before they are consumed or used in the preparation of dishes and meals<sup>1</sup>.”



## GROUP 1: UNPROCESSED OR MINIMALLY PROCESSED FOODS

**Unprocessed or Natural foods** are obtained directly from plants or animals and do not undergo any alteration following their removal from nature.

**Minimally processed** foods are natural foods that have been submitted to cleaning, removal of inedible or unwanted parts, fractioning, grinding, drying, fermentation, pasteurization, cooling, freezing, or other processes that may subtract part of the food, but which do not add oils, fats, sugar, salt or other substances to the original food.

### EXAMPLES

- Natural, packaged, cut, chilled or frozen vegetables, fruits, potatoes, and other roots and tubers
- bulk or packaged grains such as brown, white, parboiled and wholegrain rice, corn kernel, or wheat berry
- fresh or pasteurized vegetable or fruit juices with no added sugar or other substances
- grains of wheat, oats and other cereals
- grits, flakes and flours made from corn, wheat or oats, including those fortified with iron, folic acid or other nutrients lost during processing
- dried or fresh pasta, couscous, and polenta made from water and the grits/flakes/flours described above
- eggs
- lentils, chickpeas, beans, and other legumes
- dried fruits
- nuts, peanuts, and other seeds without salt or sugar
- fresh and dried herbs and spices (e.g., oregano, pepper, thyme, cinnamon)
- fresh and dried mushrooms and other fungi or algae
- fresh and dried herbs and spices
- fresh, chilled or frozen meat, poultry, fish and seafood, whole or in the form of steaks, fillets and other cuts
- fresh or pasteurized milk; yoghurt without sugar
- tea, herbal infusions
- coffee
- tap, spring and mineral water

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<sup>1</sup> Quoted from: <https://tinyurl.com/NOVA2016WN> That article and the Brazilian Dietary Guidelines (from <http://tinyurl.com/BRdietary>), which also are informed by NOVA, were used to compile this reference. Food, Nutrition & Fitness I: The Digestion Journey Begins with Food Choices 1 of 4  
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## GROUP 2: OILS, FATS, SALT, AND SUGAR

Group 2 is also called **Processed Culinary Ingredients**. These are products extracted from natural foods or from nature by processes such as pressing, grinding, crushing, pulverizing, and refining. They are used in homes and restaurants to season and cook food and thus create varied and delicious dishes and meals of all types, including broths and soups, salads, pies, breads, cakes, sweets, and preserves.

Use oils, fats, salt, and sugar in small amounts for seasoning and cooking foods and to create culinary preparations. As long as they are used in moderation in culinary preparations based on natural or minimally processed foods, oils, fats, salt, and sugar contribute toward diverse and delicious diets without rendering them nutritionally unbalanced.

### EXAMPLES

- oils made from seeds, nuts and fruits, to include soybeans, corn, oil palm, sunflower or olives
- white, brown and other types of sugar and molasses obtained from cane or beet
- honey extracted from honeycombs
- syrup extracted from maple trees
- starches extracted from corn and other plants
- butter
- lard
- coconut fat
- refined or coarse salt, mined or from seawater
- also any food combining 2 of these, such as 'salted butter'



### THE GOLDEN RULE:

“Always prefer natural or minimally processed foods and freshly made dishes and meals to ultra-processed foods.”



## GROUP 3: PROCESSED FOODS

**Processed foods** are products manufactured by industry with the use of salt, sugar, oil or other substances (Group 2) added to natural or minimally processed foods (Group 1) to preserve or to make them more palatable. They are derived directly from foods and are recognized as versions of the original foods. They are usually consumed as a part of or as a side dish in culinary preparations made using natural or minimally processed foods. Most processed foods have two or three ingredients.

### EXAMPLES

- canned or bottled legumes or vegetables preserved in salt (brine) or vinegar, or by pickling
- tomato extract, pastes or concentrates (with salt and/or sugar)
- fruits in sugar syrup (with or without added antioxidants)
- beef jerky
- bacon
- salted or sugared nuts and seeds
- canned fish, such as sardine and tuna, with or without added preservatives
- salted, dried, smoked or cured meat or fish
- coconut fat
- freshly-made cheeses
- freshly-made (unpackaged) breads made of wheat flour, yeast, water and salt
- fermented alcoholic beverages such as beer, alcoholic cider, and wine



## GROUP 4: ULTRA-PROCESSED FOODS

**Ultra-processed foods** are industrial formulations made entirely or mostly from substances extracted from foods (oils, fats, sugar, starch, and proteins), derived from food constituents (hydrogenated fats and modified starch), or synthesized in laboratories from food substrates or other organic sources (flavor enhancers, colors, and several food additives used to make the product hyper-palatable). Manufacturing techniques include extrusion, moulding, and preprocessing by means of frying. Beverages may be ultra-processed. Group 1 foods are a small proportion of, or are even absent from, ultra-processed products.

### EXAMPLES

- fatty, sweet, savory or salty packaged snacks
- biscuits (cookies)
- ice creams and frozen desserts
- chocolates, candies and confectionery in general
- cola, soda and other carbonated soft drinks
- 'energy' and sports drinks
- canned, packaged, dehydrated (powdered) and other 'instant' soups, noodles, sauces, desserts, drink mixes and seasonings
- sweetened and flavored yogurts, including fruit yogurts
- dairy drinks, including chocolate milk
- sweetened juices
- margarines and spreads
- pre-prepared (packaged) meat, fish and vegetables
- pre-prepared pizza and pasta dishes
- pre-prepared burgers, hot dogs, sausages
- pre-prepared poultry and fish 'nuggets' and 'sticks'
- other animal products made from remnants
- packaged breads, hamburger and hot dog buns
- baked products made with ingredients such as hydrogenated vegetable fat, sugar, yeast, whey, emulsifiers, and other additives
- breakfast cereals and bars
- infant formulas & drinks, and meal replacement shakes (e.g., 'slim fast')
- pastries, cakes and cake mixes
- distilled alcoholic beverages such as whisky, gin, rum, vodka, etc.