# 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." 1

### **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.

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

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; yogurt without sugar

Tea, herbal infusions

Coffee

Tap, spring and mineral water

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

1 From World Nutrition Volume 7 (2016), which, along with the Brazilian Dietary Guidelines (also informed by NOVA), were used to compile this reference document for use with your journals.

### **GROUP 2**

## Oils, Fats, Salt, and Sugar







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. When 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

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

Any food combining two 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.

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 hyperpalatable). Manufacturing techniques include extrusion, molding and preprocessing by frying. Group 1 foods are a small proportion of, or are even absent from, ultraprocessed products.

- Fatty, sweet, savory or salty packaged snacks
- Cookies (biscuits)
- 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
- Fast foods, from restaurants or boxed (e.g., 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, whey, emulsifiers, and other additives
- Breakfast cereals and bars
  - Infant formulas & drinks, and meal replacement shakes (e.g., SlimFast®)
- Pastries, cakes, and cake mixes

Distilled alcoholic beverages (e.g., whisky, gin, rum, vodka, etc.)









