**Supplemental table 1.** Classification of food frequency questionnaire items according to NOVA processing level and food group. The Framingham Offspring Cohort.

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| **NOVA processing level** | **Food group** | **Food frequency questionnaire items** |
| **Minimally processed foods** | Vegetables & legumes | Broccoli, cabbage/coleslaw, cauliflower, Brussels sprouts, alfalfa sprouts, carrots (raw/cooked), mixed vegetables, winter squash, summer squash, beets, celery, spinach (raw/cooked), iceberg/head lettuce, romaine/leaf lettuce, tomatoes, yams/sweet potatoes, kale/mustard greens/chard, garlic, beets, corn, potatoes, string beans, peas/lima beans, and beans/lentils. |
| Fruit | Apples and pears, bananas, raisins, prunes, cantaloupe, watermelon, oranges, grapefruit, strawberries, blueberries and peaches. |
| Fruit juice | Orange juice, grapefruit juice, tomato juice, apple juice/cider and other fruit juices. |
| Meat, fish & eggs | Chicken/turkey (with/without skin), liver, meat as main dish, dark meat fish, other fish, shellfish (e.g. shrimp, lobster, scallops) and eggs. |
| Milk (skim & whole) | Whole milk and skim milk. |
| Grains | Oatmeal, brown rice, white rice, pasta, bran, wheat germ, hot & cold breakfast cereals (without salt, sugar or other additives) and other grains. |
| Nuts | Nuts. |
| Coffee & tea | Coffee, decaffeinated coffee and tea. |
|  | Homemade baked goods | Homemade sweet rolls, cookies, cakes, pies and granola. |
|  | Soups & sauces | Fried food made at home, soup/chowder and tomato sauce (assumed homemade). |
| **Processed culinary ingredients** | Cream, butter & sour cream | Cream, butter and sour cream. |
| Oil & vinegar dressing | Oil and vinegar dressing. |
| Salt | Salt added to foods. |
| Sugar | Sugar added to foods or beverages. |
| **Processed foods** | Cheese | Cottage cheese/ricotta and other cheese. |
| Canned/cured meat & fish | Canned tuna and bacon. |
| Wine & beer | White wine, red wine and beer. |
| Other processed foods | Peanut butter, mustard, jams/jellies, tofu/soya beans, mayonnaise and processed breakfast cereals (with added salt and/or sugar but without additives). |
| **Ultra-processed foods** | Bread | White bread, dark bread and English muffins/bagels. |
| Sweets & desserts | Readymade sweet rolls, pies, cookies, doughnuts, brownies, pancakes/waffles, muffins./biscuits, ice cream, sherbet/ice milk, candy bars, chocolate and candy without chocolate. |
| Ultra-processed meat products | Processed meats (e.g. sausage, bologna, salami), hot dogs and meat sandwiches. |
| Salty snack foods | Chips, crackers and popcorn. |
| Sugar-sweetened beverages | Cola and non-cola carbonated drinks with sugar, punch, lemonade and other non-carbonated fruit drinks. |
| Low-calorie soft drinks | Low-calorie cola and non-cola carbonated beverages (with/without caffeine). |
| Fast foods | Pizza, hamburgers, French fries and fried foods away from home. |
| Breakfast cereals | Breakfast cereals containing additives such as flavors, colors and preservatives not used in domestic cooking |
| Yoghurt | Yoghurt. |
| Other ultra-processed foods | Non-dairy coffee whitener, margarine, cream cheese, liquor and chili sauce. |