

Food Exchange Lists

The following pages separate foods into these seven groups:

- Starches
- Fruits and Fruit Juices
- Milk, Yogurt, and Dairy-like foods
- Non-Starchy Vegetables
- Sweets, Desserts, and Other Carbohydrates
- Meats and Meat Substitutes
- Fats

At the top of each section you will find the amount of carbohydrate, protein, fat and calories found in each selection. These food lists can be used for:

- counting carbohydrates
- counting calories
- counting grams of fat
- counting grams of protein

To help you make healthy food choices:

- milk products are separated by fat and calorie content
- meats and protein foods are separated by fat and calorie content
- dietary fats are divided into unsaturated and saturated sources

Compiled from: Choose Your Foods: Exchange Lists for Diabetes
American Dietetic Association and American Diabetes Association, 2008

Starches

Breads and Flours Each Serving = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories	
Bagel	1/4 (1 oz)
Biscuit	1 (2 1/2 inches across)
Bread	
Reduced-calorie	2 slices (1 1/2 oz)
White, whole-grain, pumpernickel, rye, unfrosted raisin	1 slice (1 oz)
Bun (hotdog or hamburger)	1/2 bun (1 oz)
Chapatti, small	1 (6 inches across)
Cornbread	1 (1 3/4 inch cube or 1 1/2 oz)
English muffin	1/2
Flour, corn meal, wheat germ	3 Tbsp dry
Naan Indian Bread	1/4 (8 inches by 2 inches)
Pancake, 1/4 inch thick	1 (4 inches across)
Pita bread	1/2 pocket (6 inches across)
Roll, plain, small	1 (1 oz)
Stuffing, bread	1/3 cup
Taco shell or tostada shell	2 crisp shells (5 inches across)
Tortilla	
Corn or flour, 6 inches across	1
Flour, 10 inches across	1/3
Waffle	1 (4-inch square, or 4 inches across)

Cereals, Grains and Pasta Each Serving = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories	
Barley, cooked	1/3 cup
Bran, dry	
Oat bran	1/4 cup
Wheat bran	1/2 cup
Bulgur, cooked	1/2 cup
Cereals	
Bran	1/2 cup
Oats, oatmeal, cooked	1/2 cup
Puffed	1 1/2 cups
Shredded wheat, plain	1/2 cup
Sugar-coated cereals	1/2 cup
Unsweetened, ready-to-eat cereals	3/4 cup

Cereals, Grains and Pasta (continued) Each Serving = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories	
Couscous, cooked	1/3 cup
Granola, regular or low-fat	1/4 cup
Grits, cooked	1/2 cup
Kasha	1/2 cup
Millet, cooked	1/3 cup
Muesli	1/4 cup
Pasta, cooked	1/3 cup
Polenta, cooked	1/3 cup
Quinoa, cooked	1/3 cup
Rice, white or brown, cooked	1/3 cup
Tabbouleh, prepared	1/2 cup
Wheat germ, dry	3 Tbsp
Wild rice, cooked	1/2 cup

Starchy Vegetables Each Serving = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories	
Cassava	1/3 cup
Corn	1/2 cup
Corn on cob, large	1/2 cob (5 oz)
Hominy, canned	3/4 cup
Parsnips	1/2 cup
Peas, green	1/2 cup
Plantain, ripe	1/3 cup
Potato	
Baked with skin	1/4 large (3 oz)
Boiled, all kinds	1/2 cup or 1/2 medium (3 oz)
Mashed, with milk	1/2 cup
French fried (oven baked)	1 cup (2 oz)
Pumpkin, canned, no sugar added	1 cup
Squash, winter (acorn, butternut)	1 cup
Succotash	1/2 cup
Yam, sweet potato	1/2 cup

Snacks Each Serving = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories	
Animal crackers	8 crackers
Crackers	
Crispbreads	2-5 (3/4 oz)
Round-butter type	6
Saltine-type	6
Sandwich-style, with filling	3
Whole-wheat regular	2-5 (3/4 oz)
Graham crackers (2 1/2 inch square)	3 squares
Matzoh	3/4 oz
Melba toast, 2-inch by 4-inch	4 pieces
Oyster crackers	20
Popcorn, popped	3 cups
Pretzels	3/4 oz
Rice cakes, 4 inches across	2
Snack chips	
Baked	15-20 (3/4 oz)
Regular	9-13 (3/4 oz)

Beans, Peas and Lentils (Cooked) <i>(also found under Meat and Meat Substitutes)</i> Each Serving = 15 g carbohydrate, 7 g protein, 0-3 g fat, 125 calories	
Baked beans	1/3 cup
Beans (black, garbanzo, kidney, lima, navy, pinto, white)	1/2 cup
Lentils (brown, green, yellow)	1/2 cup
Peas (black-eyed, split)	1/2 cup
Refried beans, canned	1/2 cup

Fruit and Fruit Juices

Fruit	
Each Serving = 15 g carbohydrate, 0 g protein, 0 g fat, 60 calories	
<i>Note: the weights in parenthesis include the peel, skin, rind, and seeds</i>	
Apple, unpeeled, small	1 (4 oz)
Apples, dried	4 rings
Applesauce, unsweetened	1/2 cup
Apricots, fresh	4 whole (5 1/2 oz)
Apricot, dried	8 halves
Banana	1/2 large or 1 baby banana (4 oz)
Blackberries	3/4 cup
Blueberries	3/4 cup
Cantaloupe	1 cup cubed (11 oz)
Cherries	
Sweet, canned	1/2 cup
Sweet, fresh	12 (3 oz)
Dates	3
Dried fruits	2 Tbsp
Figs	2 medium (3 1/2 oz)
Fruit cocktail	1/2 cup
Grapefruit	
Large	1/2 (11 oz)
Sections, canned	3/4 cup
Grapes, small	17 (3 oz)
Honeydew	1 slice or 1 cup cubed (10 oz)
Kiwi	1 (3 1/2 oz)
Mandarin oranges, canned	3/4 cup
Mango	1/2 cup or 1/2 small (5 1/2 oz)
Nectarine, small	1 (5 oz)
Orange, small	1 (6 1/2 oz)
Papaya	1 cup cubed (8 oz)
Peach	
Canned	1/2 cup
Fresh, medium	1 (6 oz)
Pear	
Canned	1/2 cup
Fresh, large	1/2 (4 oz)
Pineapple	
Canned	1/2 cup
Fresh	3/4 cup

Fruit (continued) Each Serving = 15 g carbohydrate, 0 g protein, 0 g fat, 60 calories	
Plums	
Canned	1/2 cup
Fresh, small	2 (5 oz)
Prunes	3
Raisins	2 Tbsp
Raspberries	1 cup
Strawberries	1 1/4 cup whole berries
Tangerines, small	2 (8 oz)
Watermelon	1 1/4 cup cubes (13 1/2 oz)

Fruit Juice (liquid = fast absorption) Each Serving = 15 g carbohydrate, 0 g protein, 0 g fat, 60 calories	
Apple juice and apple cider	1/2 cup
Fruit juice blends, 100% juice	1/3 cup
Grape juice	1/3 cup
Grapefruit juice	1/2 cup
Orange juice	1/2 cup
Pineapple juice	1/2 cup
Prune juice	1/3 cup

Milk and Yogurt

Fat-free (skim) and Low-fat (1%) Selections (Best choice) Each Serving = 15 g carbohydrate, 8 g protein, 0-3 g fat, 100 calories	
Fat-free and low-fat buttermilk	1 cup
Fat-free milk	1 cup
Low-fat, 1 % milk	1 cup
Evaporated fat-free milk	1/2 cup
Fat-free dry milk powder	1/3 cup dry
Yogurt, Fat-free, flavored with artificial sweetener Plain, fat-free	2/3 cup (6 oz) 2/3 cup (6 oz)

Reduced-Fat Selections Each Serving = 15 g carbohydrate, 8 g protein, 5 g fat, 120 calories	
Milk, 2%	1 cup
Kefir	1 cup
Yogurt, plain low-fat	2/3 cup (6 oz)
Sweet acidophilus milk	1 cup

Whole Milk Selections (Limit use - high in saturated fat) Each Serving = 15 g carbohydrate, 8 g protein, 8 g fat, 160 calories	
Milk, whole	1 cup
Evaporated whole milk	1/2 cup
Yogurt, plain (made from whole milk)	8 oz
Goat's milk	1 cup

Dairy-like Foods Food composition varies – See right-hand column		
Chocolate milk		
Fat-free	1 cup	30 g carb, 8 g protein, 0 g fat
Whole	1 cup	30 g carb, 8 g protein, 8 g fat
Eggnog, whole milk	1/2 cup	15 g carb, 10 g fat
Rice milk		
Flavored, low-fat	1 cup	30 g carb
Plain, fat-free	1 cup	15 g carb
Smoothies, flavored	10 oz	45 g carb, 8 g protein, 0-3 g fat
Soy milk		
Light	1 cup	15 g carb, 4 g protein, 3 g fat
Regular, plain	1 cup	15 g carb, 8 g protein, 5 g fat
Yogurt		
And juice blends	1 cup	30 g carb, 8 g protein, 0 g fat
Low carbohydrate	2/3 cup (6 oz)	6 g carb, 4 g protein, 0 g fat

DTC - UCSF

Sweets, Desserts, and Other Carbohydrates

Food composition varies – See right-hand column

Beverages, Soda, Energy and Sports Drinks		
See right-hand column for composition of each food item		
Cranberry juice cocktail	1/2 cup	15 g carb
Energy drink	1 can (8.3 oz)	30 g carb
Fruit drink or lemonade	1 cup (8 oz)	30 g carb
Hot chocolate Regular	1 envelope (added to 8 oz water)	22 g carb, 5 g fat
Sugar-free or light	1 envelope (added to 8 oz water)	15 g carb
Soft drink (soda), regular	1 can (12 oz)	38 g carb
Sports drink	1 cup (8 oz)	15 g carb

Brownies, Cake, Cookies, Gelatin, Pie, and Pudding		
See right-hand column for composition of each food item		
Brownie, small, unfrosted	1 1/4 inch square, 7/8 inch high (1 oz)	15 g carb, 5 g fat
Cake		
Angel food, unfrosted	1/12 of cake (2 oz)	30 g carb
Frosted	2 inch square (2 oz)	30 g carb, 5 g fat
Unfrosted	2 inch square (2 oz)	15 g carb, 5 g fat
Cookie		
Chocolate chip	2 small (2 1/4 inches)	15 g carb, 10 g fat
Gingersnap	3 cookies	15 g carb
Sandwich with crème filling	2 small (2/3 oz)	15 g carb, 5 g fat
Sugar-free	3 small (3/4-1 oz)	15 g carb, 5-10 g fat
Vanilla wafer	5 cookies	15 g carb, 5 g fat
Cupcake, frosted	1 small (1 3/4 oz)	30 g carb, 5-8 g fat
Fruit cobbler	1/2 cup (3 1/2 oz)	45 g carb, 5 g fat
Gelatin, regular	1/2 cup	15 g carb
Pie		
Fruit, 2 crusts	1/6 of 8 inch pie	45 g carb, 10 g fat
Pumpkin or custard	1/8 of 8 inch pie	22 g carb, 8 g fat
Pudding		
Regular (made with reduced-fat milk)	1/2 cup	30 g carb
Sugar free (made with fat-free milk)	1/2 cup	15 g carb

Candy, Spreads, Sweets, Sweeteners, Syrups, and Toppings

See right-hand column for composition of each food item

Candy bar, chocolate and peanuts	2 “fun size” bars (1 oz)	22 g carb, 8 g fat
Candy, hard	3 pieces	15 g carb
Chocolate “kisses”	5 pieces	15 g carb, 5 g fat
Coffee creamer		
Dry, flavored	4 tsp	8 g carb, 3 g fat
Liquid, flavored	2 Tbsp	15 g carb
Fruit snacks, chewy	1 roll (3/4 oz)	15 g carb
Fruit spread, 100% fruit	1 1/2 Tbsp	15 g carb
Honey	1 Tbsp	15 g carb
Jam or jelly, regular	1 Tbsp	15 g carb
Sugar	1 Tbsp	15 g carb
Syrup		
Chocolate	2 Tbsp	30 g carb
Light (pancake type)	2 Tbsp	15 g carb
Regular (pancake type)	1 Tbsp	15 g carb

Condiments and Sauces

See right-hand column for composition of each food item

Barbeque sauce	3 Tbsp	15 g carb
Cranberry sauce, jellied	1/4 cup	22 g carb
Gravy, canned or bottled	1/2 cup	8 g carb, 3 g fat
Salad dressing, fat-free	3 Tbsp	15 g carb
Sweet and sour sauce	3 Tbsp	15 g carb

Doughnuts, Muffins, Pastries, and Sweet Breads

See right-hand column for composition of each food item

Banana nut bread	1-inch wide slice (1 oz)	30 g carb, 5 g fat
Doughnut		
Cake, plain	1 medium (1 1/2 oz)	22 g carb, 10 g fat
Yeast-type, glazed	3 3/4 inches (2 oz)	30 g carb, 10 g fat
Muffin	1/4 muffin (1 oz)	15 g carb, 3 g fat
Sweet roll or Danish	1 (2 1/2 oz)	38 g carb, 10 g fat

Frozen Bars, Frozen Desserts, Frozen Yogurt, and Ice Cream

See right-hand column for composition of each food item

Frozen pops	1	8 g carb
Fruit juice bars, frozen, 100% juice	1 bar (3 oz)	15 g carb
Frozen yogurt		
Fat-free	1/3 cup	15 g carb
Regular	1/2 cup	15 g carb, 0-5 g fat
Ice cream		
Fat-free	1/2 cup	22 g carb
Light	1/2 cup	15 g carb, 5 g fat
No sugar added	1/2 cup	15 g carb, 5 g fat
Regular	1/2 cup	15 g carb, 10 g fat
Sherbet, sorbet	1/2 cup	30 g carb

Granola Bars, Meal Replacement Bars or Shakes, and Trail Mix

See right-hand column for composition of each food item

Granola or snack bar	1 bar (1 oz)	22 g carb, 0-5 g fat
Meal replacement bar	1 bar (2 oz)	30 g carb, 5 g fat
Meal replacement shake, reduced calorie	1 can (10-11 oz)	22 g carb, 0-5 g fat
Trail mix		
Candy and nut-based	1 oz	15 g carb, 10 g fat
Dried fruit-based	1 oz	15 g carb, 5 g fat

Non-Starchy Vegetables

Serving size = 1/2 cup cooked
1 cup raw
1/2 cup vegetable juice

Each Serving = 5 g carbohydrate, 2 g protein, 0 g fat, 25 calories

Amaranth or Chinese spinach	Okra
Artichoke and Artichoke hearts	Onions
Asparagus	Oriental radish or daikon
Baby corn	Pea pods (snow peas)
Bamboo shoots	Peppers (all varieties)
Beans (green, wax, Italian)	Radishes
Bean sprouts	Rutabaga
Beets	Sauerkraut
Bok choy	Soybean sprouts
Borscht	Spinach
Broccoli	Summer squash
Brussels sprouts	Sugar snap peas
Cabbage - all types	Swiss chard
Carrots	Tomato (fresh or canned)
Cauliflower	Tomato sauce
Celery	Tomato/vegetable juice
Chayote	Turnips
Coleslaw, no dressing	Water chestnuts
Cucumber	Yard-long beans
Eggplant	Zucchini
Gourds (bitter, bottle, luffa)	
Greens (collard, kale, mustard, turnip)	
Green onions or scallions	
Hearts of palm	
Jicama	
Kohlrabi	
Leeks	
Mixed vegetables (without corn or peas)	
Mung bean sprouts	
Mushrooms	

Salad greens are Free Foods including: chicory, endive, escarole, lettuce, romaine, spinach, arugula, radicchio, and watercress.

Meats and Meat Substitutes

Lean Selections (Good Choice) Each Serving = 0 g carbohydrate, 7 g protein, 0-3 g fat, 45 calories	
Beef (Select or Choice grades): ground round, roast (chuck, rib, rump), sirloin, steak (flank, porterhouse, T-bone), tenderloin	1 oz
Beef jerky	1 oz
Cheeses (0-3 g fat per oz)	1 oz
Cottage cheese	1/4 cup
Egg substitute, plain	1/4 cup
Egg whites	2
Fish: catfish, cod, flounder, haddock, halibut, orange roughy, salmon, tilapia, trout, tuna	1 oz
Fish, smoked: herring or salmon (lox)	1 oz
Game: buffalo, ostrich, rabbit, venison	1 oz
Hot dog with 0-3 g fat per oz	1
Lamb: chop, leg, roast	1 oz
Organ meats: heart, kidney, liver (high cholesterol)	1 oz
Oysters, fresh or frozen	6 medium
Pork, lean: ham, pork tenderloin, Canadian bacon, rib or loin chop	1 oz
Poultry, skinless: Cornish hen, chicken, domestic duck or goose (well-drained of fat, turkey)	1 oz
Processed sandwich meats with 0-3 g fat per oz: chipped beef, deli thin-sliced meats, turkey ham, turkey kielbasa, turkey pastrami	1 oz
Salmon, canned	1 oz
Sardines, canned	2 medium
Sausage with 0-3 g fat per oz	1 oz
Shellfish: clams, crab, imitation shellfish, lobster, scallops	1 oz
Shrimp and squid (high cholesterol)	1 oz
Tuna, canned in water or oil, drained	1 oz
Veal, lean chop, roast	1 oz

Medium Fat Selections Each Serving = 0 g carbohydrate, 7 g protein, 4-7 g fat, 75 calories	
Cheese, reduced-fat cheeses (4-7 g fat per oz)	1 oz
Ricotta cheese	1/4 cup, 2 oz
Mozzarella	1 oz
Feta cheese	1 oz
Beef: corned beef, ground beef, meatloaf, Prime grades trimmed of fat (prime rib), short ribs, tongue	1 oz
Egg (high cholesterol)	1
Fish, fried	1 oz
Lamb: ground, rib roast	1 oz
Pork: cutlet, shoulder roast	1 oz
Poultry: chicken with skin, dove, pheasant, wild duck, wild goose, fried chicken, ground turkey	1 oz
Ricotta cheese	1/4 cup. 2 oz
Sausage, 4-7 grams of fat per oz	1 oz
Veal, cutlet (no breading)	1 oz

DTC - UCSF

High Fat Selections (Limit use) Each Serving = 0 g carbohydrate, 7 g protein, 8 or more g fat, 100 calories	
Bacon	2 slices (1 oz each before cooking) 3 slices (1/2 oz each before cooking)
Pork	
Turkey	
Cheese, regular: American, bleu, brie, cheddar, Colby, hard goat, Monterey jack, queso, Swiss	1 oz
Hot dog: beef, pork, turkey, chicken or combination (10 per pound sized package)	1
Pork: ground, sausage, spareribs	1 oz
Processed meats with 8 or more g fat per oz: bologna, pastrami, hard salami	1 oz
Sausage with 8 or more g of fat or more per oz: bratwurst, chorizo, Italian, knockwurst, Polish, smoked, summer	1 oz

Plant- Based Proteins

See right-hand column for composition of each food item

"Bacon" strips, soy-based	3 strips	7 g protein, 4-7 g fat
Baked beans	1/3 cup	15 g carb, 7 g protein, 0-3 g fat
Beans, cooked: black, garbanzo, kidney, lima, navy, pinto, white	1/2 cup	15 g carb, 7 g protein, 0-3 g fat
"Beef" or "sausage" crumbles, soy-based	2 oz	8 g carb, 7 g protein, 0-3 g fat
"Chicken" nuggets, soy-based	2 nuggets (1 1/2 oz)	8 g carb, 7 g protein, 4-7 g fat
Edamame	1/2 cup	8 g carb, 7 g protein, 0-3 g fat
Falafel (spiced chickpea and wheat patties)	3 patties (2 inches across)	15 g carb, 7 g protein, 8 g fat
Hot dog, soy-based	1 (1 1/2 oz)	8 g carb, 7 g protein, 0-3 g fat
Hummus	1/3 cup	15 g carb, 7 g protein, 8 g fat
Lentils, brown, green, or yellow	1/2 cup	15 g carb, 7 g protein, 0-3 g fat
Meatless burger, soy-based	3 oz	8 g carb, 14 g protein, 0-3 g fat
Nut spreads: almond butter, cashew butter, peanut butter, soy nut butter	1 Tbsp	7 g protein, 8 or more g fat
Peas, cooked: black-eyed and split peas	1/2 cup	15 g carb, 7 g protein, 0-3 g fat
Refried beans, canned	1/2 cup	15 g carb, 7 g protein, 0-3 g fat
"Sausage" patties, soy-based	1 (1 1/2 oz)	7 g protein, 4-7 g fat
Soy nuts, unsalted	3/4 oz	8 g carb, 7 g protein, 4-7 g fat
Tempeh	1/4 cup	7 g protein, 4-7 g fat
Tofu	4 oz (1/2 cup)	7 g protein, 4-7 g fat
Tofu, light	4 oz (1/2 cup)	7 g protein, 0-3 g fat

Fats

Monounsaturated Fats Each Serving = 0 g carbohydrate, 0 g protein, 5 g fat, 45 calories	
Avocado	2 Tbsp (1 oz)
Nut butters (trans fat-free): almond butter, cashew butter, peanut butter	1 1/2 tsp
Nuts:	
Almonds	6 nuts
Brazil	2 nuts
Cashews	6 nuts
Filberts (hazelnuts)	5 nuts
Macadamia	3 nuts
Mixed (50% peanuts)	6 nuts
Peanuts	10 nuts
Pecans	4 halves
Pistachios	16 nuts
Oils: olive oil, canola oil, peanut oil	1 tsp
Olives	
Black (ripe)	8 large
Green, stuffed	10 large

Polyunsaturated Fats Each Serving = 0 g carbohydrate, 0 g protein, 5 g fat, 45 calories	
Margarine, reduced-fat (30-50% vegetable oil, <i>trans</i> fat-free)	1 Tbsp
Margarine: stick tub, or squeeze (<i>trans</i> fat-free)	1 tsp
Mayonnaise:	
Reduced-fat	1 Tbsp
Regular	1 tsp
Mayonnaise-style salad dressing	
Reduced-fat	1 Tbsp
Regular	2 tsp
Nuts	
Pignolia (pine nuts)	1 Tbsp
Walnuts	4 halves
Oils: corn, cottonseed, flaxseed, grape seed, safflower, soybean, sunflower	1 tsp
Margarines with plant stanol esters	
Light	1 Tbsp
Regular	2 tsp

Polyunsaturated Fats (continued) Each Serving = 0 g carbohydrate, 0 g protein, 5 g fat, 45 calories	
Salad dressing	
Reduced-fat (check label for carbohydrate count)	2 Tbsp
Regular	1 Tbsp
Seeds: flaxseed, pumpkin, sunflower, sesame	1 Tbsp
Tahini, sesame paste	2 tsp

Saturated Fats (Limit Use) Each Serving = 0 g carbohydrate, 0 g protein, 5 g fat, 45 calories	
Bacon, cooked	1 slice
Butter	
Reduced-fat	1 Tbsp
Stick	1 tsp
Whipped	2 tsp
Butter blends made with oil	
Reduced-fat or light	1 Tbsp
Regular	1 1/2 tsp
Chitterlings, boiled	2 Tbsp (1/2 oz)
Coconut, shredded	2 Tbsp
Coconut milk	
Light	1/3 cup
Regular	1 1/2 Tbsp
Cream	
Half and half	2 Tbsp
Heavy	1 Tbsp
Light	1 1/2 Tbsp
Whipped	2 Tbsp
Whipped, pressurized	1/4 cup
Cream cheese	
Reduced-fat	1 1/2 Tbsp (3/4 oz)
Regular	1 Tbsp (1/2 oz)
Lard	1 tsp
Oil: coconut, palm, palm kernel	1 tsp
Salt pork	1/4 oz
Shortening, solid	1 tsp
Sour cream	
Reduced-fat or light	3 Tbsp
Regular	2 Tbsp