

Diabetes: Exchange List

What are the exchange lists?

The exchange lists show you portions of food that equal 1 exchange. Foods are divided into food lists. The foods on each list are called exchanges because they have a similar number of calories, protein, carbohydrate, and fat content. Foods from each list can be traded or "exchanged" for any other food on the same list because they all have a similar exchange value. A dietitian will help you plan how much food you should eat at each meal and teach you how to choose foods from the lists.

At first you should measure your food until you are able to make good estimates about serving sizes. The following list is a sample of foods found on the exchange lists.

For more information, you can buy the Exchange Lists for Meal Planning from:

The American Diabetes Association
P.O. Box 930850
Atlanta, GA 31193
1-800-342-2383
<http://www.diabetes.org>

Carbohydrate group

Starch List: One starch exchange contains about 15 grams of carbohydrate and 3 grams of protein (80 calories).

- one slice of bread
- 1/2 hamburger or hot dog bun
- 3/4 cup of unsweetened cereal
- 1/2 cup noodles
- 3 cups popcorn
- crackers (6 small saltines, 2 squares of graham crackers, 3 of most other crackers)
- 1 pancake or waffle (5 inch)
- 15 potato or corn chips.

The vegetables included in the starch exchanges include:

- corn (1/2 cup or one ear)
- white potato (one baked or 1/2 cup mashed)
- yam or sweet potato (1/4 cup)
- green peas (1/2 cup)

- squash (1/2 cup)
- lima beans (1/2 cup).

Fruit List: 1 fruit exchange contains about 15 grams of carbohydrate (60 calories) and has essentially no fat or protein.

Examples of one fruit exchange are:

- grape juice (1/3 cup)
- apple or pineapple juice (1/2 cup)
- orange or grapefruit juice (1/2 cup)
- 1 small apple
- orange, pear, or peach
- 1/2 banana
- 1/2 cup berries
- 1/3 of a small cantaloupe
- 1 cup of watermelon.

Milk List: 1 milk exchange contains about 8 grams of protein (32 calories) and 12 grams of carbohydrate (48 calories) with a trace of fat (a total of 90 calories).

Examples of one milk exchange are:

- 1 cup of skim or nonfat milk
- 1 cup of 1% milk (also includes 1/2 fat exchange)
- 1 cup yogurt made from skim milk
- 1 cup of yogurt from 2% milk (also includes 1 fat exchange)
- 1 cup 2% milk (also includes one fat exchange).

Vegetable List: One-half cup of most vegetables (cooked or raw) has about 5 grams of carbohydrate and 2 grams of protein (25 calories) and is considered 1 exchange. Raw lettuce may be eaten in larger quantities, but salad dressing usually equals 1 fat exchange. Some raw vegetables are higher in carbohydrate, equal to 15 grams carbohydrate and 2 grams protein, and should be considered equivalent to 1 starch exchange in quantity (see starch list).

Other Carbohydrates List: One "other carbohydrate" exchange has 15 grams of carbohydrate. Many of these foods count as a carbohydrate exchange and one or more fat exchanges.

- 1 brownie (2 inch square) = 2 carb exchanges
- 1 fruit snack roll = 1 carb exchange
- 1 granola bar = 1 carb, 1 fat exchange
- 1/2 cup ice cream = 1 carb, 2 fat exchanges
- 1/3 cup frozen yogurt, low-fat = 1 carb exchange
- 6 to 12 tortilla chips = 1 carb, 2 fat exchanges.

Meat and Meat Substitute Group

Meats are divided into very lean meats, lean meats, medium-fat meats and high-fat meats. People with diabetes should try to eat more lean and medium-fat meats and stay away from the high-fat choices.

The **Very Lean** meat group includes foods that contain 7 grams of protein and 0 to 1 gram of fat (35 calories) for 1 exchange. Examples include:

- 1 ounce poultry (white meat, no skin)
- 1 ounce fresh fish
- 1 ounce fat-free cheese
- 2 egg whites.

The **Lean** meat group includes foods that contain 7 grams of protein and 3 grams of fat (55 calories) for 1 meat exchange. Examples include:

- 1 ounce poultry (dark meat, no skin)
- 1 ounce fish
- 1 ounce lean pork
- 1 ounce USDA Select or Choice grades of lean beef
- 1 ounce 1/2% or 1% fat cottage cheese.

The **Medium-Fat** group includes foods that have 7 grams of protein and 5 grams of fat (75 calories). Examples include:

- 1 ounce of ground beef; most cuts of beef, pork, lamb or veal
- 1 ounce of low-fat cheese
- 1 egg
- 1/4 cup of tuna.

The **High-Fat** group includes foods with 7 grams of protein and 8 grams of fat (100 calories). This group includes:

- 1 ounce of pork sausage
- 1 ounce of spare ribs
- 1 ounce fried fish
- 1 ounce of regular cheese (American, Swiss etc.)
- 1 ounce of lunch meat
- 1 ounce frankfurter or bratwurst.

Fat Group

Fat List: Fat is necessary for the body and is particularly important during periods of fasting (overnight), when it is very slowly absorbed. 1 fat exchange contains 5 grams of

fat (45 calories). The polyunsaturated fats are better for you than saturated fats. The fat list includes:

1 exchange of monounsaturated fats equals:

- 2 tsp peanut butter
- 6 almonds
- 1 teaspoon of oil (olive, peanut, canola).

1 exchange of polyunsaturated fats equals:

- 1 teaspoon margarine
- 1 teaspoon of any vegetable oil (except coconut).

1 exchange of saturated fat includes:

- 1 teaspoon butter
- 1 strip of bacon
- 2 tablespoon of cream (half and half).

Free Foods

A free food contains less than 20 calories or less than 5 grams of carbohydrate per serving. If the food has a serving size listed on its package, it should be limited to 3 servings spread throughout the day. Examples of free foods include fat-free margarine, sugar-free gelatin, diet soft drinks, catsup, soy sauce, and spices.

Combination Foods

Many foods, such as casseroles, are mixed together. Your dietitian can help you figure out how many exchanges to count for combination foods. For example:

- Lasagna (1 cup) = 2 carb exchanges and 2 medium-fat meat exchanges
- Spaghetti with meatballs (1 cup) = 2 carb exchanges and 2 medium-fat meat exchanges
- Pizza, cheese (1/4 of a 10-inch pizza) = 2 carbs, 2 medium-fat meats, 1 fat exchange
- Chicken noodle soup (1 cup) = 1 carb exchange
- Frozen entrée (less than 300 calories) = 2 carbs, 3 lean meat exchanges
- Macaroni and cheese (1 cup) = 2 carb exchanges and 2 medium-fat meat exchanges.

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Sugar Content of Some High-Carbohydrate Foods

Food Item	Portion Size	Sugar Content in Teaspoons*	# "Carb Choices"
Beverages			
Cola Drinks	12 oz	10	3
Rootbeer	12 oz	7	2
Grape, Orange, or Apple Juice	6 oz	5	1½
Dairy Products			
Sherbet	1 scoop	9	3
Ice Cream Cone	1 scoop	3 ½	1
Chocolate Milk Shake	10 oz glass	11	4
Milk	8 oz glass	4	1
Chocolate Milk	8 oz glass	9 ½	3
Fruit Yogurt	8 oz cup	9	3
Cakes and Cookies			
Angel Food Cake	4 oz piece	7	2
Chocolate Cake, Plain	4 oz piece	6	2
Chocolate Cake, w/ Frosting	4 oz piece	10	3
Cupcake, w/ Frosting	1	6	2
Brownies, No Frosting	1 oz piece	3	1
Sugar Cookie	1	1 ½	½
Oatmeal Cookie	1	2	1
Donut, Plain	1	3	1
Donut, Glazed	1	6	2
Desserts			
JELL-O	½ cup	4 ½	1 ½
Pastry	4 oz piece	4	1
Apple Pie	1 slice	7	2
Berry Pie	1 slice	10	3
Chocolate Pudding	½ cup	4	1
Candies			
Chocolate Candy Bar	1 ½ oz	2 ½	1
Chewing Gum	1 stick	½	-
Hard Candy	4 oz	20	7
LIFE SAVERS®	1	½	-
Marshmallow	1 piece	1 ½	½
Chocolate Creme	1 piece	2	1
Miscellaneous			
Jelly	1 Tbsp	4 to 6	2
Strawberry Jam	1 Tbsp	4	1
Brown Sugar	1 Tbsp	3	1
Honey	1 Tbsp	3	1
Chocolate Sauce	1 Tbsp	3	1
Karo Syrup®	1 Tbsp	3	1

*3 tsp = 1 Tbsp = 1 "carb choice" = 15 grams of carbohydrate