WHAT IS CARBOHYDRATE COUNTING?

Carbohydrate counting, or "Carb counting", is one tool that can be used to help support dietary change in the treatment of obesity and/or diabetes. Carb counting involves keeping track of the amount of available carbohydrates in the foods we eat each day.

Carbohydrates are one of the main nutrients found in food and drinks. Protein and fat are the other main nutrients. Carbohydrates include starches, sugars, fruit, vegetables and fibre. Carbohydrate counting can help control your blood glucose (also called *blood sugar*) levels and this will help decrease the *Insulin* requirements, which affects fat accumulation and utilization.

The amount of carbohydrate in foods is measured in grams. **To count grams of carbs we need to:**

- Know which foods contain carbohydrates
- Learn to read a food label
- Learn to estimate the number of grams of carbohydrates in the foods we eat
- Add up the number of grams of carbohydrates from each food we eat to get either our daily total or total amount for each meal
- Evaluate the right amount of carbohydrates that works for you to reach your goals, whether that is weight loss or diabetes management.

Why it is helpful for you to count carbs and how it will help you reach your goals starts with understanding the process of how our bodies metabolize carbohydrates…

UNDERSTANDING CARBOHYDRATES

Carbohydrates in food are digested into small pieces---the main piece being glucose. Glucose (a.k.a **sugar**) is absorbed through the small intestine and enters the blood stream, causing blood sugar levels to rise. Our bodies utilize that glucose for energy. Glucose is not our only nutrient used for energy, but it is the one that our bodies use most readily, and it typically is the most available energy source in our diets.

As soon as we start eating any carbohydrate – simple sugars or complex starches, our digestive enzymes start to breakdown the food as soon as it hits the saliva in our mouth. As the food moves down into our stomach and through our small intestine, our digestive enzymes breakdown that food molecule futher into its smallest form – glucose. Once that glucose enters the bloodstream, it does not matter where that glucose came from. It does not make a difference whether it came from brown rice or a chocolate chip cookie, once it is there, our body has to move that glucose out of the blood stream. In response to digesting carbodydrates, our body releases Insulin. Insulin is a hormone produced by the pancreas in

response to eating glucose. Our bodies work hard to regulate our blood glucose levels by releasing the right amount of insulin required to regulate the blood sugar. Insulin allows for glucose to enter the cells. Without insulin, our blood glucose levels would remain high.

However, our working cells only use glucose when they need it. Once our working cells have reached their limit of glucose, the liver stores some of the excess for distribution between meals should blood glucose levels fall below a certain threshold. If there is left over glucose beyond what the liver can hold, it will be turned into fat for long-term storage. When carbohydrates are scarce, the body runs mainly on fats. If energy needs exceed those provided by fats in the diet, the body must use some of its fat tissue for energy (It will also use some of its stored protein source or muscle as well).

Obesity is a disease that manifests as an inappropriate storage of fat tissue and inappropriate ability to utilize that stored fat for fuel. The hormone insulin is an important hormone in this storage of fat as well as the utilization of glucose for energy. When our body's main nutrition components come from carbohydrates and our bodies are having a difficult time with processing that glucose, research shows us that carbohydrate reduction is an important part of weight management as well as blood sugar control. This is not to say that a low carb diet is THE ANSWER for eveyone that carries extra fat tissue, as many research studies show us that Very Low Carbohydrate Diets (VLCD) may not contribute to long term weight loss success for everyone. VLCD is very difficult to maintain. **It is important to remember that whatever we do to lose weight, we must maintain in order to prevent weight regain.** Modified, or a reduced carbohydrate diet is what we are trying to attain to achieve and maintain long-term weight loss.

KEY POINTS:

- All carbohydrates breakdown to glucose (a.k.a. sugar)
- Insulin is required to allow the sugar to leave the bloodstream and enter the cells
- Insulin plays a major role in fat accumulation and storage
- Modified, or reduced carbohydrate diet can help with weight loss and help with long term weight loss/maintainance

TYPES OF CARBOHYDRATES

You will hear terms like complex carbohydrates, simple carbohydrates, whole grains, processed grains, enriched grains, naturally occuring sugar, sugar added, low–calorie sweetner, high fructose corn syrup, sugar alcohols, reduced-calorie sweeteners, sweets, etc. etc. No wonder knowing what kind and how much carbohydrate to eat is confusing? Our goal is to take the confusion out of what is a carb and to figure out what is right for you.

6 main types of carbohydrates: Starches, Fruit, Vegetables, Fibre, Sugar, Dairy

STARCH

Foods high in starch include:

- Starchy vegetables like peas, corn, potatoes, parsnips, pumpkin, squashes
- Legumes and "meat alternatives" like dried beans, lentils, kidney beans, black eyed peas split peas, and lima beans
- Grains like oats, barley, rice, rye, quinoa and buckwheat, and wheat. (The majority of grain products in the US and Canada are made from wheat flour. These include pasta, bread and crackers). Even "gluten-free" products contain starches like rice and sugar.
- The grain group can be broken down even further into whole grain or refined grain.
- The grain includes three parts:
    - Bran
    - Germ
    - Endosperm
- The bran is the outer hard shell of the grain. It is the part of the grain that provides the most fiber and most of the B vitamins and minerals.
- The germ is the next layer and is packed with nutrients including essential fatty acids and vitamin E.
- The Endosperm is the soft part in the centre of the grain. It contains the starch.

Whole grain means that the entire grain kernal is in the food. If you eat a whole grain food, it contains the bran, germ and endosperm so you get all of the nutrients that whole grains have to offer. If you eat a refined grain food, it contains only the endosperm or the starchy part so you miss out on a lot of vitamins and minerals. Because whole grains contain the entire grain, they are much more nutritious than refined grains. However, beware that even whole grain bread usually isn't entirely made out of actual "whole" grains. They are grains that have been pulverized into very fine flour. Even though this process preserves the nutrients, it causes these products to be digested rapidly.

Fibre

Fibre is the part of the plant that our bodies cannot digest. There are two types of fibre: *Soluble* and *Insoluble*. Foods such as vegetables, fruits, legumes and whole grains contain fibre. Animal foods such as meats and eggs have no fibre. Fibre slows down the digestion as the carbohydrate moves through the stomach and small intestine and slows down the release of glucose into the blood stream. Fibre also has many other properties that are beneficial to us.

- **Soluble fibre** is the soft fibre that helps control blood glucose and reduces cholesterol. It also helps in managing diarrhea. Soluble fibre is present in oat bran, oatmeal, legumes (dried beans and lentils) and fruits such as apples and strawberries.
- **Insoluble fibre** is the bulky fibre that helps to prevent constipation.
  It also helps to prevent some types of cancers. It is present in wheat bran, whole grain breads and cereals, fruits and vegetables. Many foods contain both soluble and insoluble fibre.

KEY POINTS:

- When choosing starches, choose the least refined option
- Refined starches are void of fiber and will spike your glucose quickly, leading to higher insulin levels
- Higher fibre amount will slow the glucose release into the blood stream
- Refined starches are the least nutritious

FRUIT

Fruit is a disaccharide -- meaning a 2 sugar molecule "chain". It is made up of Glucose and Fructose. Even though the "chain" is shorter than a complex starch, which is a longer "chain", fruit is considered a *complex carbohydrate* because it contains fibre. Although considered a part of a healthy diet, as it contains vitamins, antioxidants and fibre (levels depend on the fruit) it does raise blood sugar quite high -- much, much higher than vegetables and should not be treated as equal to vegetables in terms of servings of vegetables/fruit per day.
NOTE: One small apple is the same available glucose as one slice of bread.

VEGETABLES

Although considered a carbohydrate, they are mostly made up of fibre, vitamins and minerals. Starchy vegetables contain higher levels of starch than other vegetables (see **STARCHES** above).

Non-starchy vegetables have very low impact on blood sugar and are the healthiest choice for any diet. Examples of non-starchy vegetables are asparagus, broccoli, carrots, celery, green beans, lettuce and other salad greens, peppers, spinach, kale, tomatoes, and zucchini.

DAIRY

Many dairy products including yogurt and milk contain natural sugars. For instance, both plain yogurt and flavoured yogurt include carbohydrate. One glass of milk or one cup of yogurt have approximately the same carbohydrate as a small piece of fruit or a slice of bread.

SUGAR

Sugar is another type of carbohydrate. You may also hear sugar referred to as simple or fast-acting carbohydrate. Sugar has no fibre and is a very 'simple molecule' and short "chain". Table sugar does not require much digestion time to breakdown therefore the glucose level in the blood stream rises very quickly. Thus needing a very fast and higher level of insulin to cope with the blood sugar spike.

There are 2 main types of sugar:

- *Naturally occuring sugars,* such as those in milk or fruit
- *Added sugars*, such as those added during the processing such as sugar added to make a cookie, or in flavoured yogurt.

On the nutrition facts label, the number of sugar grams includes both added and natural sugars.

SUGAR HAS MANY DISGUISES

Careful reading of labels is necessary to know how much added sugar you are eating. Sometimes there will be small amounts of many types of sugars, so none of them are listed in the first few ingredients of the label. Other times, sugar hides as apparently more "healthy" ingredients, such as honey, agave, rice syrup, or even "oganic dehydrated cane juice". These are all sugars and therefore still have the same effect on your blood sugar as white table sugar.

Did you know?

- 1 teaspoon of table sugar = 4 grams of sugar
- 1 tablespoon of Heinz Ketchup contains 1 teaspoon of sugar
- ¾ cup of 0% vanilla-flavored Greek yogurt (Liberte) contains 19grams of sugar = almost 5 teaspoons
- 1 355ml can of Coca-Cola contains 39 grams of sugar = almost 10 teaspoons

WHY IS KNOWING *WHAT TYPE* AND *HOW MUCH* CARBOHYDRATE I EAT IMPORTANT?

There is a difference between eating whole grain, or refined processed gains, or between eating candy or eating fruit. Even though it is all glucose in the end, it does matter how quickly and how high the blood glucose level rises and how much fibre we take in. This is referred to as the Glycemic index. The Glycemic Index (GI) is a scale that ranks carbohydrate-rich foods by how quickly they raise blood glucose levels. Lower glycemic index foods will slowly raise blood glucose levels whereas high glycemic index foods quickly raise blood glucose levels. The faster and higher the blood glucose level rises, the higher the amount of insulin will be required. Refined starches and simple sugars contain very little fibre and are higher in the Glycemic Index. They do not require much time during digestion to break down into glucose. The blood sugar release is very quick. Eating a diet high in processed foods will typically be a diet full of high Glycemic Index foods.

HOW MUCH CARBOHYDRATE SHOULD I EAT EACH DAY?

When we are embarking on carb counting as a tool for treating obesity or diabetes, we must consider the individual and their ability to process carbohydrates. How well one person tolerates a certain amount of carbohydrates may be different from another person's ability to utilize that glucose for fuel, or how much of it will be stored as fat, and how it will utilize that stored energy.

KEY POINTS:

- The ability to tolerate or metabolize carbohydrates is different from person to person
- Number of carbohydrates should be determined on an individual basis – work with your health care team about your number.
- Daily carbohydrate goals will be determined based on results of sustained weight loss or maintenance and/or improved blood sugar management

CARBOHYDRATE COUNTING

HOW MUCH CARBOHYDATE IS IN THE FOOD I EAT?

You will need to learn to estimate the amount of carbs in foods you typically eat. For example, the following amounts of carbohydrate-rich foods each contain about 15 grams of carbohydrate:

- One slice of bread
- One 6-inch tortilla
- 1/3 cup of pasta
- 1/3 cup of rice
- 1 small piece of fresh fruit, such as a small apple or orange
- ½ cup of pinto beans
- ½ cup of starchy vegetables such as mashed potatoes, cooked corn, peas or lima beans
- ½ cup cooked cereal (oatmeal)

Some foods are so low in carbohydrates that you may not have to count them unless you eat large amounts. For example, most nonstarchy vegetables are low in carbohydrates. A ½ cup serving of cooked nonstarchy vegetables or a cup of raw vegetables has only about 5 grams of carbohydrates.

As you become familiar with which foods contain carbohydrates and how many grams of carbohydrates are in food you eat, carbohydrate counting will be easier. Attached is carbohydrate content list that we have accumulated for you to review.

NUTRITION LABEL

You can find out how many grams of carbohydrates are in the foods you eat by checking the nutrition labels on food packages. Learning to read a food label is an important part of carb counting and an important tool to utilize for carbohydrate and nutrition awareness. Following is an example of a nutrition label:

Nutrition label tell you

- ***The food's serving size – such as 1 cup or one slice***
- ***The total grams of carbohyrates per serving***
- ***The total grams of fiber***
- ***The total grams of sugar***
- ***Other nutrition information, including calories and the amount of protein and fat per serving***

NET CARBOHYDRATES VS TOTAL CARBOHYDRATES

- We want to know the amount of ***available glucose*** that our bodies will have to metabolize. This means we want to know the ***NET CARBOHYDRATES***. Dietary fibre does not breakdown into glucose. What we are wanting to measure is the amount of available glucose that the carbohydrate will provide. This will directly tell us just how much glucose our bodies have to cope with and how much insulin will be required.
- Remember, insulin affects our fat storage and utilization of fat stores.

Net carbs = Total Carbs – Fiber

Based on the food label above, the Net Carbs for 1 serving would be 17 g total minus 3 g of fiber to equal 14 grams of net carbohydrates.

17 g – 3 g = 14 g

- The sugar amount lets us know just how much of that carbohydrate is a simple-sugar, it does not tell us amount of "added sugar", or total amount of glucose that will end up in our blood stream. As stated above, naturally occuring and added sugars are both included in the sugar amount on the food label.

COOKING AT HOME

To find out the amount of carbohydrate in home cooked/prepared foods, you'll need to estimate and add up the grams of carbohydrate from the ingredients. You can use books or websites that list the typical carbohydrate content of homemade items to estimate the amount of carbohydrate in a serving. (See the carbohydrate content list attached to see estimates of home baking carbohydrate amounts.)

EATING OUT

Some resturants provide nutrition information that lists grams of carbohydrates. You can also use carohydrate content food list attached to estimate the amount of carbohydrate in resturant meals. Many resturants post their nutrition information on-line. We also have some on-line resources listed below.

HELPFUL TIPS FOR CARB COUNTING

- Determine out of what you are eating is carbohydrates
  - ✓ Tool: track what you are eating via a food diary
  - ✓ Highlight foods that include carbohydrates
- Figure out type of carb – is this a high or low glycemic carb?
- Figure out amount of carb (in grams)
- Figure out the right amount for you
  - ✓ Will this amount allow for weight loss, weight maintenance?
  - ✓ Are you able to sustain limiting your carbodryate to this number long term?
  - ✓ Speak with your health care team to determine right amount for you

ON-LINE RESOURCES:

Canadian Diabetes Association:
https://www.diabetes.ca/CDA/media/documents/clinical-practice-and-education/professional-resources/carbohydrate-counting-resource-english.pdf
http://www.calorieking.com
http://myfooddiary.com
https://www.myfitnesspal.com

An example of carbohydrate counting using a food diary ……

Breakfast	Calories	Carbs	Fat	Protein	Fiber	Sugar
Homemade - Oatmeal, 1 Cup	300	54	6	10	8	2
Raisins, seedless, 1 small box (1.5 oz)	129	34	0	1	2	25
Blueberries - Raw, 50 berries	39	10	0	1	2	7
Milk - Skim, 1 Cup	90	13	0	8	0	11
Add Food | Quick Tools	558	111	6	20	11	45
Lunch						
Little Big Bread, 2 slices	110	19	1	7	5	1
Turkey Breast - Lunch Meat, 2 oz	50	1	1	9	0	0
Cheese - Cheddar - Slice, 17 g	70	0	7	5	0	0
Banana - Dole, 1 medium banana (126g)	110	29	0	1	3	15
Add Food | Quick Tools	340	49	8	22	8	16
Dinner						
Sodexo Campus - Vegetable Lasagna, 1 serving	330	34	14	16	4	3
Great Value - Garlic Bread, 2 slice	300	30	18	6	2	0
Add Food | Quick Tools	630	64	32	22	6	3
Snacks						
Truscuit Crackers - Crackers, 7 crackers	120	20	3	3	3	0
Apples, raw, with skin, 1 large (3-1/4" dia)	116	31	0	1	5	23
Cheese, cheddar, 1 gram	4	0	0	0	0	0
Mr. Christies - Arrowroot Cookies, 3 cookies	90	15	3	1	0	6
Starbucks - Grande Non Fat Vanilla Latte (Corrected), 16 oz.	200	37	0	12	0	35
Add Food | Quick Tools	530	103	6	17	8	64
Totals	**2,058**	**327**	**53**	**81**	**34**	**128**

Using this example, we can easily see which foods have the most carbohydrate and use this information to help us brainstorm easy substitutions which can help to cut down on the overall daily carbohydrate count. (In this example, there was 327g of carbs consumed. (Net carbs: 327g – 34g of fibre = 293g. ***This is the equivalent of 73 teaspoons of sugar***!)

By “redecorating” our day and making some healthier substitutions, we can dramatically reduce the number of carbohydrates we are eating over the course of the day….

Breakfast	Calories	Carbs	Fat	Protein	Fiber	Sugar	
Blueberries - Raw, 50 berries	39	10	0	1	2	7	⊖
Sliced Almonds - Sliced Almonds, 2 tbsp	80	2	7	2	1	0	⊖
Cottage Cheese, Breakstone 2% - 2% Milkfat Cottage Cheeses, 1 cup	180	10	5	20	0	10	⊖
Silk Almond Milk - Unsweetened - Unsweetened Almond Milk, 1 cup	30	1	3	1	1	0	⊖
Add Food | Quick Tools	329	22	15	24	3	17	
Lunch							
Turkey Breast - Lunch Meat, 2 oz	50	1	1	9	0	0	⊖
Cheese - Cheddar - Slice, 17 g	70	0	7	5	0	0	⊖
Cucumber - With peel, raw, 1 cup slices	16	4	0	1	1	2	⊖
Little Big Bread, 1 slices	55	10	0	4	3	1	⊖
Add Food | Quick Tools	191	14	8	18	3	2	
Dinner							
Home Cooked - Chicken Breast., 100 g	165	0	4	26	0	0	⊖
Outtakes - Garden Salad (Large), 1 serving(s)	48	12	0	2	3	4	⊖
Add Food | Quick Tools	213	12	4	28	3	4	
Snacks							
Cheese, cheddar, 1 gram	4	0	0	0	0	0	⊖
Mr. Christies - Arrowroot Cookies, 3 cookies	90	15	3	1	0	6	⊖
Starbucks - Grande - 2% Americano Misto, 1 serving(s) (16 fl oz ea.)	110	10	4	7	0	10	⊖
Planters - Deluxe Mixed Nuts, 1 oz. (28g/about 20 pieces)	170	7	14	5	2	1	⊖
Homemande - Fresh Veggies & Dip, 1 serving	100	0	7	1	8	2	⊖
Add Food | Quick Tools	474	32	28	14	10	19	
Totals	**1,207**	**80**	**55**	**84**	**19**	**42**	

Now this individual is eating approximately 80g of carbohydrate and 42g of sugar.

Carbohydrate Content List

1. Bread Products	Serving Size	Carbs (g) (netCarb = total carb-fibre)
Bagel	4 ½ inch diam	60-90
Bread		
• Cracked wheat	1 slice	14
• Whole Wheat	1 slice	11
• Rye	1 slice	14
Bun, Hamburger or Hot Dog	1	22
Bread Stuffing	½ Cup	20
Breadstick - soft	1 bread stick	15-25
Bun: Hamburger, Hot dog	Regular size	30
Corn Bread	2" cube	15
Croissant	Medium	25
Croutons	¾ cup	15
Dinner Roll	Small	15
English Muffin	1 whole	30
Pancake	6" (avg size)	30
Pita Bread	Large 6"-9"	30-45
Pizza Crust	1/12"	16
Taco Shell	2 (5 inch diam)	15
Tortilla-corn	7"	15
Waffle (frozen type)	1	15
Wrap	Various sizes	See label
• Dempsters whole wheat Tortilla 61g serving		25
• Whole Wheat	10 inch diam	26

2. Cereals	Serving Size	Carbs (g)
Oatmeal		
• Old Fashioned Quaker Oats	½ cup uncooked	23
• Quaker Steel Cut Oats	½ cup uncooked	23
• Packaged Instant Oatmeal (Plain)	1 packet	17
• Packaged Instant Oatmeal (Various flavoured)	1 packet	28-33
Bran Flakes	1 cup	26
Cheerios	1 cup	19
Corn Flakes	1 cup	24
Holy Crap	2 tbsps.	7
Granola	1/2cup	30
Skinny B	2 tbsps.	4
Kashi Go Lean	1 cup	20
Kellogg's All-Bran Bran Buds	½ cup	17

Shredded wheat	1 biscuit	16
Oat Bran	1/3 cup	20
Flax seed	2 tbsps.	1-2

3. Crackers	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Melba toast	7 pieces	17
Ryvita, dark rye	4 pieces	15
Wasa, whole grain	2 pieces	15
Triscuit Cracker	6 pieces	17

4. Grains/Pasta	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Rice, cooked	1 cup	45
Pasta, cooked	1 cup	45
White Flour (dry)	½ cup	78
Rice flour (dry)	½ cup	78
Whole wheat Flour	½ cup	73
Quinoa cooked	1 cup	34
Couscous, cooked	½ cup	17

5. Bean/Legumes	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Hummus	1/3 cup	7.5
Chickpeas/garbanzo beans, kidney beans, lentils, navy beans, split pea	½ cup	10-15
Baked Beans	½ cup	18
Black Beans	½ cup	10-15

6. Starchy Vegetables	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Corn: cooked or canned	½ Cup	15
Corn Cob 6”- 9”	6”- 9”	30-45
Green Peas	½ Cup	15
Potato	Average Baked	60
Potatoes (hashed or mashed)	½ cup	15
Winter Squash (acorn, hubbard, etc)	1 Cup	20
Sweet Potato/Yams (plain)	½ Cup	20

7. Baked Goods	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber)
Biscuit (large Bob Evans)	1	30
Biscuit (small Pillsbury)	1	10
Brownie-large (Zingerman’s)	1	70
Cake 2 layer frosted	4” square	80
Chocolate Chip cookie-refrigerator dough	1	15

Cupcake with frosting	1	30
Danish (large bakery type)	1	45
Donut (Dunkin Donuts-plain or jelly filled)	1	25-40
Donut (Krispy Kreme)	1	20
Fruit Crisp	1/3 Cup	45
Fruit pie	1/8th of 9" pie	50
Muffin (homemade standard size)	1	20-30
Muffins (bakery type)	1	60-75

8. Snack Foods	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber)
Dark Chocolate	1 oz	15
Dove Chocolate	3 pieces	15
French Fries-crinkle cut frozen type	10	15
French Fries-diner style	Side order	60
French Fries-fast food	Small order	30
Graham Cracker	3 squares	15
Granola: SEE LABEL	½ cups	15-45
Hershey Kisses	5	15
Ice Cream- No Sugar Added	½ cup	12-15
Ice Cream- plain vanilla	½ cup	15
Jello	½ cup	20
Jello-Sugar Free	½ cup	0
Oyster Crackers	½ cup	15
Popcorn	3 cups	15
Potato Chips	10 chips	17
Pretzels	11 small/ 30 sticks	15
Pudding-Regular	1 snack pack	30
Pudding-Sugar Free	1 snack pack	15
Saltine Crackers	7 squares	15
Sherbet	½ cup	30
Sorbet	½ cup	35-40
Tortilla chips, baked	6 chips	15
Sugar, syrup, honey, molasses, chocolate syrup	1 Tbsp (15ml)	14
Jam, jelly, marmalade	1 Tbsp (15 ml)	13
Candies, Hard	5 small	15
Candies, Licorice	2 pieces	15
Candies, Jellybeans	5 large	13
Candies, Lifesavers	6	15

9. Milk & Yogurt	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber)
Cow's milk (fat-free, 1%, 2%, Whole)	1 Cup	12
Rice Milk- flavored	1 Cup	See label
Rice Milk-Plain	1 Cup	20
Soy Milk (flavored-vanilla, chocolate, etc)	1 Cup	See label

Soy Milk (plain)	1 Cup	8
Yogurt (plain)	1 Cup	12
Yogurt- Dannon Light & Fit	1 serving (6oz)	10
Yogurt-Yoplait Light (blue top)	1 serving (6 oz)	19

10. Fruit	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Apple	1 small	12
Apple	1 medium	16
Apple Sauce	½ cup	12
Apricot	4	13
Banana	1 small	20
Banana	1 large	30
Berries:		
• Blackberries	2 cups	12
• Boysenberry	2 cups	17
• Cranberry	2 cups	17
• Raspberry	2 cups	13
• Strawberry	2 cups	16
• Gooseberry	2 cups	18
• Blueberry	2 cups	22
Cherries	1 cup with pits	16
Dates	2 med	12
Figs	2 small	13
Grapefruit	1 small (240g)or 1 cup	21
Grapes (red/green)	12 cup or 15	14
Guava	3 fruit	15
Kiwi	2 medium	18
Kumquat	8 fruit	14
Lemon whole	2 medium	
Lime, whole	3	16
Mango	½ medium	16
Orange	1 medium	12
Nectarine	1 large	12
Watermelon	1 cup	11
Honeydew	1 cup	14
Cantaloupe	1 cup	12
Peach	1 large	13
Pear	1 medium	20
Pineapple	¾ cup	13
Dried Fruit		
Raisins	2 tbsp	14
Banana chips	1 oz/28g	14
Cranberries	3 tbsp	17
Dates	20g	11
Coconut: raw	3 cup	16

Coconut: sweetened	½ cup	17-21
Coconut: unsweetened	2 cups	14

11. Fruit/ Vegetable Juice	Serving Size	Carbs (g) (netCarb = total carb-fiber)
Apple Juice 100%	½ Cup	15
Carrot Juice	1 Cup	12
Cranberry Juice Cocktail 100%	½ Cup	12
Cranberry Juice Cocktail- Light	1 Cup	10
Grape Juice 100%	½ Cup (4 oz)	15
Orange Juice	½ Cup	13
Tomato or V8 juice	1 Cup (80z)	10

12. Sauce/ Condiments	Serving Size	Carbs (g) (netCarb = total carb-fiber)
Apple Butter	2 Tbsp	15
Barbeque Sauce BBQ	2 Tbsp	15
Cranberry Sauce-jellied	¼ cup	25
Fat Free Mayo/Salad Dressing	2 Tbsp	5
Fruit Jam or Jelly	1 Tbsp	15
Fruit Spread- Jam- 100% Fruit-less sugar	1 Tbsp	10
Fruit Spread-Jams-Sugar Free	1 Tbsp	5
Gravy-brown prepared from mix	1 Cup	15
Hoisin Sauce	2 Tbsp	15
Hollandaise Sauce made from mix 2 Tbsp	2 Tbsp	5
Honey	1 Tbsp	15
Honey Mustard	2 Tbsp	7
Ketchup	¼ cup	15
Marinara Sauce	½ cup	15
Plum Sauce	2 Tbsp	15
Ranch- fat free	2 Tbsp	8
Ranch- regular	2 Tbsp	2
Sloppy Joe Sauce	¼ cup	15
Sugar	1 Tbsp	15
Sweet and Sour Sauce	2-3 Tbsp	15
Syrup	1 Tbsp	15
Syrup- Lite	2 Tbsp	15
Szechuan sauce	1/3 cup	15

13. Combination Foods	Serving Size	Carbs (g) (netCarb = total carb-fiber)
Bean Soup (split pea, lentil, etc)	1 Cup	30
Beans & Cheese Burrito- avg frozen type	6 oz	45-60
Cabbage Roll with meat and rice	1 avg roll	15
Chicken Noodle Soup- from can	1 Cup	15
Chili with beans & meat	1 Cup	25
Chili-vegetarian	1 Cup	30-50

Cream Soup	1 Cup	15
Dumpling- Chinese type	3	15-20
Egg Roll	1 avg roll	15-25
Lasagna from restaurant	Avg serving	50-80
Macaroni & Cheese	1 Cup	45
Pizza (individual pan)	1 whole pizza	75
Pizza 12”	1 avg slice	30
Pot pie (small frozen)	1	30
Red Beans & Rice	1 Cup	45
Spaghetti with Tomato Sauce	1 Cup	45
Tuna Noodle Casserole	1 Cup	30

14. Restaurant and Take Out	**Serving Size**	**Carbs (g)** (netCarb = total carb-fiber
Starbucks		
Banana Chocolate Chip Muffin	1	55
Bear Claw	1	62
Banana Loaf	1	63
Blueberry Bar	1	50
Blueberry Scone	1	61
Butter Croissant	1	25
Buttermilk blueberry muffin	1	50
Chocolate brioche	1	40
Chocolate caramel pretzel	1	34
Chocolate chip cookie	1	62
Cinnamon brioche	1	52
Double chocolate brownie	1	49
Everything Bagel with cheese	1	56
Fruit and Oat cookie	1	61
Lemon Cranberry scone	1	66
Lemon Loaf	1	57
Marshmallow dream bar	1	43
Multigrain bagel	1	60
Oat Bar	1	43
Oat Fudge Bar	1	56
Pain au chocolate	1	25
Peanut butter cookie	1	48
Raisin bran muffin	1	54
Reduced fat banana chocolate chip coffee cake	1	65
Reduced fat cinnamon swirl coffee cake	1	62
Savory cheese croissant	1	24
Sesame bagel	1	59
White Chocolate macadamia cookie	1	57
Cheese and fruit bistro box	1	39
Protein box	1	37
Thai style peanut chicken wrap	1	52
Bacon and gouda breakfast sandwich	1	30
Classic whole grain oatmeal	1	28

Double smoke bacon cheddar and egg sandwich	1	44
Egg and Cheddar breakfast sandwich	1	27
Reduced fat turkey bacon Sandwhich	1	28
Sausage and Cheddar sandwhich	1	41
Spinach and feta wrap	1	33
Birthday cake pop	1	22
Chocolate cake pop	1	21
Salted caramel cake pop	1	25
Fruit parfait – fresh berries and honey	1	37
Fruit parfait – fresh strawberries	1	34
DRINKS		
Caffe Latte Non-fat Milk or 2%	Tall	15
Caffe Latte with Soymilk	Tall	9
Caffe Latte Non-fat Milk or 2%	Grande	19
Caffee latte with Soymilk	Grande	12
Caffee Mocha without Whipped Cream	Tall	31
Caffee Mocha without Whipped Cream	Grande	41
Vanilla Latte (or other falvoured Lattee)	Tall	28
Vanilla Latte	Grande	37
Frappuccino (Plain)	Tall	36
Frappuccino (Plain)	Grande	51
Frappuccino (Plain)	Vente	70
Vanilla Bean Frappuccino	Tall	39
Vanilla Bean Frappuccino	Grande	56
Vanilla Bean Frappuccino	Vente	73