

Calculating carbohydrates for recipes

How to calculate the carbohydrate content of a recipe with no nutritional information

Don't limit yourself to eating foods that come with Nutritional Information labels. Many cookbooks now list nutritional information for recipes; but what about your grandma's potato salad recipe which has been handed down through the generations? With a little bit of knowledge, and a few basic tools, you can figure the carbohydrate content of any food you eat.

Essential Tools

Items you will need to calculate the carbohydrate content of any recipe are:

A good book of carbohydrate values.

Your book should list the carbohydrate content of several different increments of "raw" ingredients like flour and potatoes. Some books only offer carbohydrate values for "ready-to-eat" foods or for foods found at restaurants. While these have their place, they are not going to be useful for this purpose.

- Many people find the [Collins Gem Calorie Counter](#) a very useful reference book, listing over 3000 foods – both branded products and ingredients, giving Calories, protein, carbohydrate, fat and fibre. You can [buy it online](#) on our books page.
- The best online archive we have found is at www.nal.usda.gov. This is run by the US Department of Agriculture. There is an excellent search facility where you can enter how much food you want, backed up by an enormous database of ingredients. In addition to the basic nutritional values, it also gives detailed information on the vitamin and mineral content.

Kitchen scales.

This should be able to weigh several pounds at a time. (For a recipe such as apple pie, you will need to weigh the apples all together.) It need not be a fancy digital scale, however. You can find scales at restaurant supply houses or "cooking" stores.

Measuring cups and spoons.

Make sure you have a complete set of measuring spoons and both dry and liquid measuring cups.

A calculator.

You'll also want to have paper and a pencil.

The Basic Procedure

Calculating the carbohydrate content of any recipe involves three simple steps.

1. Looking up and calculating the carbohydrate value of each ingredient in the recipe,
2. adding them together,
3. dividing the total number of carbohydrates in the recipe by the number of servings.

How much is in a serving?

Sometimes it's obvious...

Some recipes have obvious serving sizes. For instance, if you are making chocolate chip cookies, the serving size is one cookie. (No, it is NOT the entire batch of raw cookie dough!!) In this case, you would bake the entire batch of dough, keeping track of how many cookies your kids swipe along the way. Figure the total amount of carbs in the entire recipe and divide this number by the number of cookies you ended up with (including the "swiped" ones!). I'm sure you know by now that you never end up with the same

number of cookies that the recipe says you will. Nobody makes cookies that small! The result is the number of carbs in one cookie. Now, if you decide that the serving size is more than one cookie, that's your business and nobody else's. Just multiply by the appropriate number.

Sometimes it's not...

Other recipes are not so clear-cut, like grandma's potato salad. In cases like this, you will need to measure the total volume of the finished recipe and divide it into what seems like a reasonable serving size. This can be a bit messy the first time you make a recipe because you end up scooping it out of one container into another using a measuring cup. Keep track and compute the total volume. Decide what amount is a reasonable serving size and divide this amount by the total volume. The result is the percentage of the total in one serving. Multiply this percentage by the total number of carbs in the recipe to get the number of carbs per serving. Once you have done this, make a note on the recipe so you'll know that the serving size is 1/2 cup (for example) and how many carbs are in each serving. One of my biggest pet peeves is a recipe that says, "Makes six servings" instead of, "Makes six servings, 1/2 cup each". It is a subtle difference but can make life soooo much easier. :-)

With some recipes, it works better to visually divide the food into equal portions and then measure the volume of one portion. A casserole served in a rectangular flat-bottomed dish can be easily divided in half with a spatula and then again into quarters, or sixths, or whatever you like. Once you have divided it, use a measuring cup to determine how much is in one serving and make a note on the recipe.

Another way to determine the number of carbs per serving is to weigh the finished product, before you serve any of it. This works well for recipes that are transferred into a serving bowl and then served "family style". An example would be stir-fried vegetables. You could weigh the entire stir-fry, and then weigh the portion you wish to eat. Divide the weight of your portion by the weight of the entire recipe to get the percentage of the stir-fry that you are eating. Then multiply this percentage by the total number of carbs in the entire recipe to get the number of carbs in your portion. Of course, for this method to work, you need to have a scale which can be "zeroed" with a pan, platter, or serving bowl on it, so you aren't including the weight of the container in your calculations. This is called a "tare" function, look for this when you are shopping for a scale. You would need to transfer the food from its cooking pan to another container for which the scale has been zeroed. Then zero the scale again for your plate or bowl and measure the food into that. Again, make a note on the recipe telling you what the serving size is and how many grams of carbohydrate are in one serving. Then, the next time you make the recipe, you won't have to go through all the weighing procedures again.

Using Carbohydrate Factors and Weighing Food in Grams

Most foods packets and books now tell you how much carbohydrate there is in 100g of the product. So if it says there are 85g of carbohydrate per 100g of product, I weigh the amount of product I have and multiply by 0.85 to get the amount of carbohydrate.

Figure the total amount of carbohydrate in the recipe as described previously and weigh the entire salad (or whatever you are making). Divide the number of carbs for the total recipe by the weight in grams to get the amount of carbohydrate in one gram. This is the carbohydrate factor for that food. Then, weigh your individual portion and multiply the weight in grams by the carbohydrate factor. Again, making notes on the recipe will save you the tedium of weighing the entire recipe each time you make it.

How do I know which ingredients contain carbohydrate?

Any food that originally started out as a plant contains carbohydrate. This includes all fruits and vegetables, as well as grains. Flour is ground grain so it contains carbs. Pasta is processed grain, so it also contains carbs. In addition to this, many dairy products such as milk and yogurt contain carbohydrate. (I suppose you could think of it as the cow or goat processing the plants...) Eggs also contain a small amount of carbohydrate. If you are unsure of which ingredients to include in your carbohydrate total, look it up in your book; if it has no carbohydrates, the book will say so.

An Example

Here is a recipe that I recently made. It was originally found on the side of a box of "Minute" brand tapioca. No nutritional information was given for the recipe, although the box *does* list the nutritional

value of the tapioca itself. (This is easy to make and delicious, by the way!)

Tapioca Pudding

- 60g sugar
- 40g tapioca
- 500ml milk
- 1 egg, well beaten
- 1 teaspoon vanilla

Mix sugar, tapioca, milk, and egg in saucepan; let stand 5 minutes. Then, stirring constantly, cook on medium heat until mixture comes to a **full** boil. (Pudding thickens as it cools.) Remove from heat, stir in vanilla. Cool 20 minutes; stir. Spoon into dishes. Serve warm or chilled. Store leftover pudding in refrigerator. Makes 6 servings.

Here is the ingredient-by-ingredient break-down of how I calculated the carbs for this recipe:

Sugar

My book lists 100g granulated white sugar as having 99.9g of carbs. So to work out how much is in 60 grams of sugar, I multiply 60 by 99.9 and divide by 100. The answer is 59.9 grams. I would normally round this up to **60 grams**.

Tapioca

The box lists 100 grams of tapioca as having 85 grams of carbohydrate. So to work out how much is in 40 grams of sugar, I multiply 40 by 85 and divide by 100. The answer is **34 grams** of carbohydrate.

Milk

100ml of cow's milk has 5 grams of carbohydrate. So 500ml of milk has 5 times 5 which equals **25 grams** of carbohydrate.

Egg

1 large chicken egg (raw) has **0.6 grams** of carbohydrate.

Vanilla

1 teaspoon has **0.3 grams** of carbohydrate.

To be honest, I consider the carbs in the egg and vanilla to be negligible and didn't figure them in when I did my calculations. You could include them if you wish.

The total number of carbs in the recipe is $60 + 34 + 25 = 119$ **grams**.

If I divide between 6 people, the amount each serving gets is 199 divided by 6. The answer is 19.8 grams. I would normally round this up to **20 grams** per serving.

A Few Miscellaneous Thoughts on Carb Counting

There are certain foods I almost always weigh or measure and others that I almost never weigh or measure. In general, the higher the carb content of a food, the more important it is to know the exact amount you are eating. For instance, I always measure or weigh the potatoes, rice, or pasta I eat at dinner. I hardly ever measure the green beans. Of course, I don't weigh or measure my meat, unless it has had some carbohydrate "enhancement" such as meatloaf. I weigh baked potatoes *after* they are baked and figure 6 grams per ounce. I use a general rule that 1/2 cup of cooked potatoes, white rice, or pasta has 20 grams of carbohydrate. I know this is, perhaps, not exactly precise, but it saves my sanity and works out pretty well.

My life became much easier the day I realized that almost all bread has approximately 13 grams of

carbohydrate per ounce. You see, my husband is a *terrific* bread baker and makes a large portion of our daily bread. He does it the old-fashioned way, without a bread machine. We were having a very hard time trying to convert all his recipes to "carbohydrate known". Especially since he often "invents" his own recipes as he goes. It was almost to the point that he was going to give up baking bread and we would be sentenced to eating grocery store bread because it comes with the nutritional information. We finally noticed that the calculations were coming in very close to 13 grams per ounce. At that point, I told him to put away the calculator and get out the yeast. Now I just weigh each slice of bread as I slice it off the loaf and figure the carbs based on the magic number 13. This works for those lovely bagels from the deli too. (My husband doesn't make bagels, he calls them "defective bread". I still love to eat them, though, and ignore his remarks!)

For me, the best part of pumping is carb counting. But without the pump, carb counting wouldn't be very practical for me. I attribute my improved diabetes control to the ability to count carbs and give precisely the amount of insulin I need. I hope that you will find the information in this article useful. As always, good health, and happy eating!

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