

Diet Sheet

Carbohydrate Counting

This booklet is about how to count carbohydrate in food. Carbohydrate affects blood sugar and, therefore, the amount of insulin that you need to keep your blood sugar within normal ranges. Sometimes, by focussing just on the carbohydrate content of food it is easy to forget about healthy eating. It is important to make sure that your food is high in fibre and low in saturated fat and salt. If you need more information on these, ask your Dietitian.

What is carbohydrate?

- Carbohydrate (CHO) is the term used for any food which becomes sugar in the blood once it has been digested and absorbed. Both starches and sugars are carbohydrates. Sugars include glucose, sucrose, lactose, fructose, dextrose and maltose.
- Carbohydrates are digested and absorbed at different rates which means they put your blood sugar up at different rates. If you have not already learnt about the Glycaemic Index (GI) ask your Dietitian to explain it to you.

What foods contain carbohydrate?

Carbohydrate is found in:

All types of bread
Cereals, e.g. porridge, bran flakes
Grains, e.g. rice, barley
Pasta and couscous
Starchy vegetables, e.g. potato, yam, sweet potatoes, sweetcorn, peas
Beans, lentils
Fruit – fresh, dried, juice, tinned
Dairy foods, e.g. milk, yoghurt
Biscuits and crackers, etc.
Cakes, pastry and pastries
Most thick soups and sauces
Chocolate, sweets, etc
Sugar and drinks sweetened with sugar
Snack foods, e.g. crisps

There is very little or no carbohydrate in:

Meat
Fish (but not fish in batter or breadcrumbs)
Eggs
Cheese, butter
Green leafy vegetables and salads
Clear and unthickened soup
Seasonings – salt, pepper
Stock
Water
Tea and coffee
Diet drinks
Fats and oils
Herbs and spices

Not all foods that are free from carbohydrate should be eaten freely:

- Fats and oils contain large amounts of calories and should be used sparingly.
- Too much salt could put your blood pressure up.

Why count carbohydrate?

Modern insulins mean we are able to be much more precise in deciding on the right doses of short acting insulin needed through the day. However, the benefit is much greater if we know how much sugar producing food (carbohydrate) is being eaten. If you know the amount of carbohydrate in the meal you are about to eat, you can work out how much short acting insulin you will need.

Sometimes people with diabetes find they put on weight once they are on insulin. By reducing the amount of carbohydrate eaten, it can be possible to reduce the amount of insulin needed, and so avoid unnecessary weight gain.

We can count carbohydrates by using a list or a book, or from the labels on packets. It might seem quite daunting to have to look through lists and check everything but most people only eat a small range of foods and once you have worked out the basics, it will become easier.

How do I know how much carbohydrate is in my food?

There are several ways to get information on the carbohydrates in your food.

- The Dietitians have produced **a list** of the carbohydrate values of the more common foods. Please ask, if you have not been given this list. These values are generally shown as the amount in a normal sized portion.

For example:

One slice of bread gives you 15g CHO

Two slices give you 30g and so on.

- You can buy **books** which will give the nutrient values in every 100g of the food but these can be expensive and if you don't have a wide variety of ready made foods you may find they are not necessary.
- **Food labels** will also give the carbohydrate values of the product. This is either per 100g or per serving. However, your serving and the one described on the box may be different so you will need to adjust accordingly.

Information from the label

Most packaged foods contain labels with nutritional information and a list of ingredients. Look for 'total available carbohydrate', not just the 'sugars' or 'starches'. The label normally tells you how much carbohydrate there is in **one** portion. You need to decide whether your portion is the same as that given on the label.

Either:

- Check the portion or serving size on the packet because you may eat more or less than the amount suggested.

For example, if you eat the whole of a tin of beans that says it contains 2 servings, you will have twice the amount of carbohydrate indicated on the label. Here's how:

15g CHO in 1 serving of beans
 $2 \times 15 = 30\text{g}$ in 2 servings (the whole tin)

Or:

- Look at the carbohydrate value per 100 grams and then you can calculate the amount of carbohydrate in your portion size.

For example, if you eat 150g of a quiche that contains 18g carbohydrate per 100g, you will eat 27g carbohydrate. Here's how:

18g CHO in 100g quiche
 $18 \times \frac{150}{100} = 27\text{g}$ in 150g quiche

Home cooking

Some recipe books include the carbohydrate value of the whole dish or a portion size. If not, you can make the calculation yourself:

- Look at the recipe and decide which ingredients contain carbohydrate
- Calculate the carbohydrate content of each ingredient.
- Add them all together and divide the total by the number of portions.

For example – rice pudding:

| <u>Recipe:</u> | <u>carbohydrate:</u> |
|-----------------------------|----------------------|
| 500mls milk | 25g |
| 50g rice | 43g |
| 10g sugar (1 dessert spoon) | <u>10g</u> |
| | 68g |

This recipe makes 4 portions with a total of 68g carbohydrate. So 1 portion will contain 68g divided by 4, which is 17g carbohydrate.

Sweeteners

These sweeteners do not contain any carbohydrate and do not need to be counted:

- aspartame (Candarel or red-topped sweeteners)
- saccharin
- sucralose (Splenda or yellow-topped sweeteners).

Sugar alcohols e.g. Sorbitol, Maltitol, Xylitol, are sweeteners which do contain some carbohydrate. They are often found in sugar-free sweets, chocolate and ice-cream which are sold as being suitable for people with diabetes. They may have laxative effects and we generally advise that they should not be eaten regularly. If you eat more than a very small amount, count $\frac{1}{2}$ the total carbohydrate as stated on the packet.

Eating out

- Some restaurants have standard menus and may be able to tell you the carbohydrate content of the food.
- Carbohydrate counting books often give the value of commonly eaten foods – take the book with you, and estimate the size of portion.
- If you are eating take-away food, you can weigh it at home and use a carbohydrate counting book to find the most similar food.
- If you calculate your food at home, you can make a sensible guess when you are out
- Learn by experience. If your guess was not quite right the first time, make a note and then you will be more accurate if you choose that dish again.
- Get used to what average portions of foods look like on your plate, then you will be more able to guess accurately, if eating out.

Helpful hints

- Make your own list of the carbohydrate values of the foods **you** eat most often.
- Learn to judge the carbohydrate content of your favourite foods by using the same bowl or plate.
- Every so often, weigh your favourite foods to check your memory.
- Don't confuse dry and cooked weights of foods like pasta and rice. For example raw rice contains 85 grams of carbohydrate per 100 gram, while cooked rice only contains 30 grams per 100 gram.

Produced By: Pippa Pearce (Code No. 0780)
Reviewed By: Pippa Pearce
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