WAYS TO COUNT CARBS

Carbohydrate counting is an essential skill for all people with Type 1 diabetes, so that the amount of insulin and carbohydrate can be matched to manage blood glucose levels. Research suggests that a lack of accuracy in estimating the carbohydrate content of food and drinks accounts for much of the variation in blood glucose after eating in Type 1 diabetes. There are several ways to count carbohydrate, using different sources of information. This guide describes the most common ways.

WEIGHING FOOD

This is the most accurate way to estimate the carbohydrate content of food. You will need to refer to a reliable reference of carbohydrate values, such as the Carbs & Cals book or App. Match your weighed portion to the one listed and read the carbohydrate value. If the weight of your portion does not precisely match one of the photographed foods, you will need to work out the carbohydrate content of your portion with a simple calculation:

\[
\text{Carbohydrate value of photographed food} \times \frac{\text{Weight of your portion in grams}}{\text{Weight of photographed food in grams}}
\]

FOR EXAMPLE:

Mashed Potato (with butter)

You prepare some mashed potato. Your serving weighs 305g. There is no portion showing that weight in the Carbs & Cals book or app, but there is a portion weighing 355g, which contains 56g of carbohydrate. Using the calculation above:

\[
\frac{56}{355} \times 305 = 48g \text{ CARBOHYDRATE}
\]

So your portion of 305g contains 48g of carbohydrate.

This method involves more effort but the result is greater accuracy.
VISUAL ESTIMATION USING CARBS & CALS

This method of estimation is one of the easiest and most convenient. It is particularly useful in situations where you are unable to weigh the food, such as in a restaurant or when you are eating in someone else’s home.

The Carbs & Cals Book and App is designed for, and therefore ideally suited to, this method. The accuracy of visual estimation depends on how closely your portion matches the portion you refer to in the book or app. You may need to make an adjustment if your portion is larger or smaller than the one pictured, however a range of serving sizes are provided to make this easier, as in the example below. The nutritional information in Carbs & Cals always relates to the cooked or prepared weight.

The Carbs & Cals book describes the size of the plates, bowls or other containers used in all the photos, which helps you to make a more accurate estimation.

NUTRITION INFORMATION ONLINE

Not all purchased foods display carbohydrate information on the label and some don’t even have a label (for example, loose items or foods from fast food outlets). Many large companies publish nutritional information on their own website. They may also print leaflets in-store with the same information.
NUTRITION INFORMATION ON FOOD LABELS

Most food retailers and manufacturers include nutrition information on food labels. Information displayed on the front of the pack usually shows the calorie, fat and sugar content of the recommended portion.

OTHER POINTS TO CONSIDER

Carbohydrate values are normally found on the back of the pack, together with all the other nutrients. As with the other methods, there are some important points to consider:

ALWAYS CHECK THE VALUES

Check if you are reading the values for ‘per portion’ or ‘per 100g’.

CHECK YOUR PORTION SIZE

What size is your portion? It may be much larger than the suggested portion for which you have the values provided. For added accuracy you can weigh your portion to confirm it matches the one on the label.

AS SOLD OR COOKED?

Do the values relate to ‘as sold’ or ‘as cooked/prepared’? If you are also weighing the food, make sure you do so in the same form as the value you are using.

LOOK AT CARBS NOT SUGARS

Use the value for ‘Carbohydrate’ rather than ‘of which Sugars’. Sugar is just one part of the carbohydrate and only using this value will underestimate the carbohydrate content.

ARE THE FOODS SLOWLY ABSORBED?

Does the product contain carbohydrate foods that are very slowly absorbed (for example beans or pulses)? The carbohydrate value on the label may overestimate the effect on blood glucose levels and therefore the amount of insulin you need to inject.

NUTRITION INFORMATION ON FOOD LABELS

<table>
<thead>
<tr>
<th>TYPICAL VALUES</th>
<th>Per 100g</th>
<th>Per Biscuit (approx 27g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>1910kJ/455kcal</td>
<td>514kJ/123kcal</td>
</tr>
<tr>
<td>Protein</td>
<td>4.8g</td>
<td>1.3g</td>
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<tr>
<td>Carbohydrate</td>
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<td>of which sugars</td>
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<td>of which saturates</td>
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<td>Fibre</td>
<td>2.0g</td>
<td>0.5g</td>
</tr>
<tr>
<td>Sodium</td>
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<td>Trace</td>
</tr>
<tr>
<td>Salt equivalent</td>
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<td>0.1g</td>
</tr>
</tbody>
</table>