

# Advanced Carb Counting Review and Practice

Advanced carb counting can help you manage your blood sugar. But you may need some time to get used to the method. Let's review some of the terms and calculations you'll need to know so you can use it with confidence.

First, remember there are two kinds of insulin: basal and bolus.

Basal insulin is a long-acting type of insulin that mimics the action of a healthy pancreas. It's sometimes called "background insulin."

Bolus insulin is rapid-acting insulin you take just before meals or snacks. The dose is based on the amount of carb you are about to eat.

To do advanced carb counting, you also need to know your insulin-to-carb ratio and your correction factor.

Your insulin-to-carb ratio (or I:C ratio) tells you how much carbohydrate 1 unit of rapid-acting bolus insulin will cover. For example, an I:C ratio of 1:10 means you need 1 unit of rapid-acting insulin for every 10 grams of carb you eat.

Your correction factor tells you the amount of blood sugar lowered by 1 unit of rapid-acting insulin. Use it when your blood sugar is higher than your target range before you eat.

For example, a correction factor of 1:50 means you'll need to take 1 unit of rapid-acting insulin for every 50 mg/dL that your blood sugar is over your target range.

Basal insulin doses, I:C ratios, and correction factors vary from person to person. Your diabetes care team can help you determine yours.

Now, let's put this into practice.

Suppose you and your diabetes care team have decided your lunchtime I:C ratio is 1:14. Your correction factor is 45, and your target blood sugar before meals is 110 mg/dL. You are about to eat a meal that contains 72 grams of carbohydrate.

You check your blood sugar and see it is 160 mg/dL. To decide how much insulin you need to cover the 72 grams of carb in your meal, divide 72 by your I:C ratio number of 14.

The answer is 5.1. You need 5.1 units of bolus insulin to cover 72 grams of carb.

But notice, you are over your blood sugar target by 50 mg/dL. That's 160, your current blood sugar, minus 110, your target. So use your correction factor to calculate the additional units of insulin you need. 50 divided by 45 is 1.1. You will need an extra 1.1 units of insulin.

Add your insulin amounts together to get the total units of rapid-acting insulin you need. 5.1 plus 1.1 equals 6.2. If you are using a pump, take 6.2 units of insulin.

If you are using a pen or syringe, round down to 6 units. Then enjoy your lunch!

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Meet with your diabetes care team on a regular basis to review your insulin-to-carb ratio, your correction factor, and your target blood sugar level. They'll help you make changes if needed.

Becoming comfortable with advanced carb counting takes time. Even after lots of practice, your numbers may sometimes be off.

When this happens, go back to the basics: measure your serving sizes and the amount of carb in them; review your portion sizes; read the Nutrition Facts label; and consider what else may be affecting your blood sugar, like your activity level or medicines.

Taking an active role in managing your diabetes will help you feel your best now and long into the future.