

patient education program

INSULIN-TO-CARBOHYDRATE RATIO

What is it?

Insulin-to-carbohydrate ratio is the amount of insulin needed to cover a specific amount (grams) of carbohydrate. You will see this ratio written in this way 1:15. This means you will take one unit of meal time insulin for every 15 grams of carbohydrate you eat. To calculate this, take the total grams of carb for the meal and divide by the factor (in this example the factor is 15). If your ratio was 1:12 take the total grams of carb and divide by 12.

My insulin-to-carb ratio is:

_____ units of meal time insulin for every _____ grams of carbohydrate

Example:

If your ratio is: **1:15** and your breakfast will be 48 grams of carb.

48 divided by 15 = 3.2. This means you need to take 3.2 units of insulin to cover this meal

If your ratio was **1:12** and your breakfast will be 48 grams of carb.

48 divided by 12 = 4. This means you need to take 4 units of insulin to cover this meal.

CORRECTION FACTOR

What is it?

The **correction factor** is a dose of insulin needed to bring down an elevated blood sugar to your target blood sugar. A correction factor is only used when your blood sugar is over your target. You will see a correction factor written in this way 1:50>150. This means you will take **one unit** of fast acting insulin **for every 50 points** (factor) your blood sugar is **over 150** (target blood sugar). To calculate this: take your current blood sugar minus your target blood sugar then that result is divided by the factor of 50 then multiplied by number of units

My correction factor is:

_____ unit for every _____ points my blood sugar is over _____
(number of units) (factor) (target blood sugar)

Example:

If your correction factor is **1:50>150** and your current blood sugar is **233**

blood sugar 233

minus target (-) **150**

83

then take the result, which is 83, and divide by 50 (factor)

$83 \div 50 = 1.6$

then take the result, which is 1.6, times 1 (number of units)

$1.6 \times 1 = 1.6$

This means you need to take 1.6 units of insulin to bring down your elevated blood sugar to your target blood sugar.

Meal Time Dosing

Add the insulin-to-carbohydrate ratio dose together with the correction dose. The **total of both** is then rounded and is your **total meal time dose**. Round as follows: children less than 5 years – round to the nearest ½ unit
children over 5 years – round to the nearest unit