HOW TO ADJUST insulin-to-carb ratios (insulin pump)

These adjustment guidelines are provided for information purposes only and are not a substitute for advice from your healthcare team.

Speak to your healthcare team at any time, as needed.

Choose the ratio you want to assess.

Conditions to perform the test

- Not having had any hypoglycemic episodes in the last six hours.
- Not having taken a bolus for at least the past five hours.
- Not having eaten in the last three hours.
- Having your meal in the scheduled time slot for the ratio to be tested.
  (E.g., if the time slot for the breakfast ratio is scheduled from 6:00 to 10:30 a.m., make sure to have breakfast between 6:00 and 10:30 a.m.)
- Having a meal with a carb count that you know precisely.
- Eating a moderate amount of carbs (45 to 60 g).
- Choosing a balanced meal (low in fat).
- Taking the bolus 10 to 15 minutes before eating (exception: if you take Fiasp® insulin, take the bolus 5 minutes beforehand).
- Not taking any correction boluses.
- Refraining from physical activity during the test.

Your blood sugar should be between 4 and 10 mmol/L before your meal to begin the test.

If you have a CGM, downloading and analyzing its data can help you evaluate and determine how to adjust your insulin-to-carb ratios.

Updated: March 15, 2022

1- CHECK MY BLOOD SUGAR LEVEL BEFORE AND 4 HOURS AFTER THE MEAL

Record your results in the tables included at the end of this document and calculate the variation in your blood sugar since the beginning of the test.
(See the example below)

Blood sugar level at the **beginning of the test** (before the meal)	Blood sugar level at the end of the test (4 hrs after the meal)	**Blood sugar variation** (from beginning of test)
6.7	**10.5**	**+ 3.8 (10.5 - 6.7 = 3.8)**

CAUTION!

If you go into hypoglycemia, you need to stop the test and correct the situation by eating carbs. If this happens again when I redo the test, I will need to adjust my ratio.

2- ASSESS THE RATIO FOR THE SAME MEAL AT LEAST 3 TIMES (ON 3 DIFFERENT DAYS)

3- ASSESS YOUR RESULTS

At least 2 out of 3 days, I check my blood sugar levels 4 hours after the meal

LOWER by more than 1 to 2 mmol/L or **HYPOGLYCEMIA**	**HIGHER by more than 1 to 2 mmol/L**	**STABLE** (no increase or decrease of more than 1 mmol/L)

4- ADJUST MY RATIO

▲ **my ratio** by **2 g** to decrease the insulin dose that will be suggested	▼ **my ratio** by **2 g** to increase the insulin dose that will be suggested	**No adjustment required** **Leave the ratio as is.** **No need to do the test again**

You can refer to your pump's user guide to find out how to make this change, if needed.

5- PERFORM THE TEST AGAIN TO VALIDATE THE ADJUSTMENT

TESTS on the following page ▼

Updated: November 14, 2022

TESTS

MEAL: _____

RATIO ASSESSED:
___ a.m./p.m. to ___ a.m. /p.m. = 1 u/ ____g

	DATE ▼	Blood sugar level at the **beginning of test** (before the meal)	Blood sugar level at the **end of test** (4 hrs after the meal)	**Blood sugar variation** (from beginning of test)
DAY 1				
DAY 2				
DAY 3				

ASSESSING THE CHANGES

	DATE ▼	Blood sugar level at the **beginning of test** (before the meal)	Blood sugar level at the **end of test** (4 hrs after the meal)	**Blood sugar variation** (from beginning of test)
DAY 1				
DAY 2				