

# what is an insulin sensitivity factor (ISF)?

- An insulin sensitivity factor – also called a correction factor – helps you figure out how much insulin to take to bring your high blood sugars down to the normal range.
- If your ISF = 2, this means that 1U of insulin will decrease your blood sugar by 2 mmol/L.
- In most circumstances, you should only take a correction insulin dose before food, along with your meal dose. As insulin lasts in the body for approximately 4 hrs, you do not want to administer another dose less than 4 hrs after your previous one

## how to test your ISF

### test your correction factor when:

- 1 | your blood sugar is above target
- 2 | it has been at least 3 hrs since you last ate
- 3 | it has been at least 4 hrs since your last rapid insulin injection

### steps for testing:

- 1 | administer your correction dose
  - 2 | do not eat for 4 hrs unless your sugar goes low
- ❖ It is difficult to set aside time to do this test. Alternatively you could make sure your ICR is accurate first, then test your correction dose with your meal

### when not to use a correction dose

- 1 | if your high #'s often come down on their own\*
- 2 | if it has been <4 hrs since your last rapid insulin dose
- 3 | when pending exercise will lower it

## assessing ISF test results

**your ISF is adequate if:** your blood sugar is within 2 mmol/L of your target by 4 hrs without going low

**your ISF may be too high if:** your blood sugar is >2 mmol/L above your target after 4 hrs

**your ISF may be too low if:** your blood sugar is >2 mmol/L below your target after 4 hrs

### practice makes perfect!

Repeat the test on a different day to make sure the results you're seeing are consistent. Wait until you see the same pattern at least 3 times before making a change.



## correction factor tips

### bedtime corrections

- Be careful when correcting high readings before bed. Consider the use of a larger correction factor (less insulin) near bedtime to lessen the risk of overnight lows. Consider setting an alarm and checking your blood sugar.

### when do we need to increase our correction dose?

- A larger correction dose of insulin (lower ISF) may be needed for extremely high blood sugar, ketoacidosis, an infection, pre-menstrual periods, or the use of prednisone.\*

### when do we need to lower our correction dose?

- Weight loss and increased activity will lower your insulin needs, leading to a lower correction dose of insulin (higher ISF).\*
- ❖ To find out your insulin sensitivity factor, make an appointment with your diabetes educator

\* Ask your diabetes educator for advice in this situation.