

## Multiple Daily Injections (MDI) Quiz: Cases for ICR, ISF

Answering these questions helps us understand your knowledge and individualize your care. Stop at any time to ask questions or ask for a calculator. Don't hesitate to let us know if these topics don't interest you right now.

Please fill in the following chart:

	Check here if unsure	Breakfast	Lunch	Supper	Bed
My insulin to carbohydrate ratio					
My insulin sensitivity factor (correction)					
My target blood sugar					

### 1. Insulin to Carbohydrate Ratios (ICR)

- a. Jenny has 60 grams of carbohydrate for supper. She uses an insulin-to-carbohydrate ratio of 1:10 (1 unit per 10 grams carb). How many units of insulin should she give for her food?
- b. For this question, use your own ratio. If you personally ate 60 grams of carbohydrate for supper, how much insulin would you give for that carbohydrate?

### 2. Insulin sensitivity factor (correction or ISF)

- a. Jenny checks her blood sugar before eating and it is 10.2 mmol. She uses an insulin sensitivity factor of 2 (1 unit to drop 2 mmol/L) and a target of 6 mmol. How many units of insulin does she need to correct her high blood sugar?
- b.
- c. Pretend your blood sugar is 12 mmol/L. Fill in the blanks below.

$$12 \text{ mmol/L} - \underline{\quad} \text{ (your target blood sugar)} = \underline{\quad} \text{ units for correction}$$

$\underline{\quad}$  (your ISF)

### 3. ICR + ISF

- a. Jenny has lunch. Her blood sugar is 12 mmol/L and her target is 6 mmol/L. She's eating 45 g carb. Her carb ratio is 1:10 and her ISF is 2. How many units of insulin should she give at lunch?

## Case Scenarios: DKA, Hypoglycemia

Please take a few minutes to answer these questions. This will help us understand your knowledge and keep you safe with diabetes. Stop at any time to ask questions!

### DKA

1. What do you think diabetic ketoacidosis (DKA) is? Check all that apply.
  - Acidic blood from too little insulin
  - A serious complication of diabetes that could result in death if not treated
  - A problem that requires more than the usual amount of correction insulin to treat
  - I'm not sure or I'd like to talk more about this
  
2. Jenny has a blood sugar of 18.0 mmol/L. What steps can she take to prevent DKA?  
Fill in the blanks.
  - Test her blood or urine for \_\_\_\_\_ because her blood sugar is over \_\_\_\_\_ mmol/L
  - If she has more than trace or 0.6 mmol/L ketones, give \_\_\_\_\_ times her usual correction insulin
  - Answer this only if you are on an insulin pump: If Jenny is on an insulin pump, follow the extra guidelines and use a \_\_\_\_\_ or \_\_\_\_\_ to give the correction insulin (not her pump).
  - I'm not sure or I'd like to talk more about this

### Hypoglycemia

1. Jenny has a blood sugar of 3.7 mmol/L before supper. What do you suggest she do?
  - a. Eat supper right away!
  - b. Eat 15 g of glucose and don't eat supper or give insulin until her blood sugar is 4.0 mmol/L or higher.
  - c. I'm not sure or I'd like to talk more about this
  
2. On Saturday, Jenny decides to mow the lawn after lunch. It usually takes her 45 minutes. What do you suggest she do? Circle one.
  - a. Give about half her usual meal and correction insulin with lunch
  - b. Give her usual meal and correction insulin with lunch
  - c. I'm not sure or I'd like to talk more about this
  
3. Jenny's sugar is 13.9 mmol/L 2 hr after lunch. She had corrected at lunch but wants to correct again. Her before meal target is 6 mmol/L. What should she do? She is not on a pump.
  - Correct down to 6 mmol/L
  - Correct down to 10 mmol/L
  - I'm not sure or I'd like to explain what I do, as I'm on an insulin pump