

## Instructions for Calculating Insulin Dose at Meal Times

**For use with rapid-acting insulin: Humalog, Novolog, Apidra**

Check blood glucose. Blood glucose meter reading: \_\_\_\_\_ mg/dL

Calculate carbohydrates in meal/snack:

Food	Amount	Carbohydrate (grams)
		Total carb:

Obtain the following information:

Insulin-to-carbohydrate ratio: 1 unit: \_\_\_\_\_ grams carbohydrate

Correction factor/insulin sensitivity factor: 1 unit/\_\_\_\_\_

Blood glucose target: 70 - \_\_\_\_\_ mg/dL

Calculate insulin dose:

**Step 1** → Calculate food insulin dose.

$$\text{_____ (total carb)} \div \text{_____ (insulin-to-carb ratio)} = \text{_____ units (food insulin dose)}$$

**Step 2** → Evaluate blood glucose and calculate correction dose, if needed.

**If blood glucose is above target**, figure a correction dose as follows:

$$\text{_____ (high blood glucose reading)} - \text{_____ (blood glucose target)} \div \text{_____ (correction factor/insulin sensitivity factor)} = \text{_____ units (correction insulin dose)}$$

**If blood glucose is within blood glucose target**, skip Step 2. Total insulin dose will be the food dose only.

**If blood glucose is below target range**, treat with 15 grams of rapid-acting carbohydrate (e.g. 3 glucose tablets or ½ cup fruit juice) and eat meal immediately. Administer insulin 15 - 20 minutes after start of meal. Do not give insulin for the 15 gram carbohydrate used to treat low blood glucose.

**Step 3** → Calculate total meal insulin dose.

$$\text{_____ units (food insulin dose)} + \text{_____ units (correction insulin dose)} = \text{_____ Total units insulin to be given}$$

**If giving insulin by injection**, round total insulin dose to nearest half unit.

**If using insulin pump**, the exact total insulin dose will be calculated when blood glucose and total carbohydrate grams are entered. No rounding is necessary. Give amount pump calculates.