

INSULIN CALCULATION INSTRUCTIONS

(Reviewed 08/08)

DEFINITIONS:

Goal Blood Sugar: = Target blood sugar (mg/dl)

Correction Factor: = 1 unit of insulin for every ____ mg/dl (points) that the blood sugar is above or below ____ (Target Blood Sugar).

Insulin to Carbohydrate Ratio: = 1 unit of insulin for every ____ grams of carbohydrates eaten

1. TO CALCULATE INSULIN FOR CORRECTION FACTOR:

Use the following formula:

Blood sugar value, **minus** Goal Blood Sugar = _____, **divided by** Correction Factor.

The result is the **# of units of insulin for blood sugar correction**. *This can be a **NEGATIVE number!**

2. TO CALCULATE INSULIN FOR FOOD: (insulin to carbohydrate ratio)

a. Determine total number of grams of carbohydrates eaten.

b. Use doctor's order for Carbohydrate ratio: 1 unit of insulin for every ____ gm of carbohydrate eaten.

c. Use the following formula:

Divide # of grams of carbohydrates eaten by carbohydrate ratio.

The result is the **# of units of insulin needed for food**.

3. TO CALCULATE TOTAL UNITS OF INSULIN

of units insulin needed for food

+ # of units insulin needed for Blood Sugar (*This can be a negative number.)

= Total # of units of insulin

***If the # of units of insulin needed for blood sugar is negative, then the TOTAL # of units of insulin will be SMALLER than the # of units of insulin needed for food.**

EXAMPLES:

Blood sugar goal: 150 mg/dl

Correction factor or Insulin Sensitivity: 100

Carbohydrate ratio: 1:20

1. Blood sugar is 220 and 40 gm of carbs are eaten.

$$220 - 150 = 70 \div 100 = \underline{.7} \text{ units}$$

$$40 \text{ gm of carbs} \div 20 = \underline{2} \text{ units}$$

$$.7 + 2 = \underline{2.7} \text{ units}$$

Round up to **3 units** total insulin needed

2. Blood sugar is 129 and 60 gms of carbs are eaten.

$$129 - 150 = -21 \div 100 = \underline{-.21} \text{ units}$$

$$60 \text{ gm of carbs} \div 20 = \underline{3} \text{ units}$$

$$-.21 + 3 = \underline{2.79} \text{ units}$$

Round up to **3 units** total insulin needed