

# Calculating Insulin

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## Total Daily Insulin Requirements:

Weight in pounds divided by 4 OR Wt in kilograms multiplied by 0.55

Ex) 160lb divided by 4 = 40 units OR 72.7kg x 0.55 = 40 units

Then for basal bolus calculate what percentage you want. Typically 40% basal and 60% bolus.

Ex) 40% of 40 units = 16 u basal & 60% of 40 units = 24u bolus total then divide by 3= 8units per meal (for 3 meals per day)

## Calculating Insulin Sensitivity Factor (AKA Correction Factor)

1500 divided by Total Daily Dose of insulin (TDD) if patient uses rapid acting insulin

OR 1800 divided by TDD if patient uses regular insulin

Ex) TDD = 40 units so  $1500/40 = 37.5$

If current premeal BG is 160 and the target BG is 90 you would take the current BG subtract the target BG then multiply by the correction factor.

Ex)  $(160-90)/37.5 = 1.9$  units

## Carb to Insulin Ratio

This is the number of grams of carbohydrates that is covered by 1 unit of insulin.

How to calculate: 500 divided by TDD

Ex)  $500/40 = 12.5$  grams per unit (I:C ratio is 1:12.5)

So if 90 gram meal then you would divide 90 by 12.5 = 7.2 units

If target BG is above range for 2-3 days then decrease C:I ratio by 10-20%, if target BG is below range for 2-3 days then increase C:I ratio by 10-20%.