Calculating Insulin

**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%.