

### Step 1

B					L					D					S				
---	--	--	--	--	---	--	--	--	--	---	--	--	--	--	---	--	--	--	--

**CARBOHYDRATE: INSULIN RATIO** (grams per Unit) to keep Blood Glucose steady after meals

	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10	12	14	16	18	20	22	24
CARBOHYDRATE TO BE EATEN (Grams)	5-9	2.5	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5	0.5	-	-	-	-	-	-
	10-14	5	4	3	2.5	2.5	2	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5	0.5	-
	15-19	7.5	6	5	4	3.5	3	3	2.5	2	1.5	1.5	1.5	1	1	0.5	0.5	0.5	0.5
	20-24	10	8	6.5	5.5	5	4	4	3	2.5	2.5	2	2	1.5	1	1	1	1	0.5
	25-29	12	10	8	7	6	5.5	5	4	3.5	3	2.5	2.5	2	1.5	1.5	1	1	1
	30-34	15	12	10	8.5	7.5	6.5	6	5	4	3.5	3	3	2.5	2	1.5	1.5	1.5	1
	35-39	17	14	11	10	8.5	7.5	7	5.5	5	4	3.5	3.5	2.5	2.5	2	1.5	1.5	1.5
	40-44	20	16	13	11	10	8.5	8	6.5	5.5	5	4	4	3	2.5	2.5	2	2	1.5
	45-49	22	18	15	12	11	10	9	7.5	6	5.5	5	4.5	3.5	3	2.5	2.5	2	2
	50-54	25	20	16	14	12	11	10	8	7	6	5.5	5	4	3.5	3	2.5	2.5	2
	55-59	27	22	18	15	13	12	11	9	7.5	6.5	6	5.5	4.5	3.5	3	3	2.5	2.5
	60-69	30	24	20	17	15	13	12	10	8.5	7.5	6.5	6	5	4	3.5	3	3	2.5
	70-79	35	28	23	20	17	16	14	11	10	8.5	7.5	7	5.5	5	4	3.5	3.5	3
	80-89	40	32	26	22	20	18	16	13	11	10	8.5	8	6.5	5.5	5	4	4	3.5
90-99	45	36	30	25	22	20	18	15	12	11	10	9	7.5	6	5.5	5	4.5	4	
100+	50	40	33	28	25	22	20	16	14	12	11	10	8	7	6	5.5	5	4.5	

Divide Carbohydrate eaten (grams) by Carb:Insulin Ratio (CIR)

### BOLUS INSULIN STEP 1: CALCULATE CARBOHYDRATE DOSE

**CARBOHYDRATE: INSULIN RATIO** = Carbohydrate (grams) for each Unit of Insulin to keep after-meal BG steady.  
**CARBOHYDRATE DOSE** = Carbohydrate Eaten (grams) ÷ Carbohydrate: Insulin Ratio (or "Carb Ratio", CR)

= Number where "Carbohydrate Eaten" row meets "Carb.: Insulin Ratio" column.  
 e.g. If eating 40 grams, and CR = 8 g/Unit, then Carbohydrate Dose = 40 ÷ 8 = 5 Units.

### Step 2

B					L					D					S				
---	--	--	--	--	---	--	--	--	--	---	--	--	--	--	---	--	--	--	--

**INSULIN SENSITIVITY** (mmol/l fall per Unit) with Target Blood Glucose 6 mmol/l

TDD =	90+	75-89	60-74	55-59	45-54	35-44	30-34	23-29	18-22	16-17	14-15	12-13	10-11	8-9	6-7	4-5
IS =	1	1.2	1.5	1.7	2	2.5	3	4	5	6	7	8	10	12	15	20
CURRENT BLOOD GLUCOSE (mmol/l)	7-7.9	1	0.5	0.5	0.5	0.5	-	-	-	-	-	-	-	-	-	-
	8-8.9	2	1.5	1	1	1	0.5	0.5	0.5	-	-	-	-	-	-	-
	9-9.9	3	2.5	2	1.5	1.5	1	1	0.5	0.5	0.5	-	-	-	-	-
	10-10.9	4	3	2.5	2	2	1.5	1	1	0.5	0.5	0.5	0.5	-	-	-
	11-11.9	5	4	3	2.5	2.5	2	1.5	1	1	0.5	0.5	0.5	0.5	-	-
	12-12.9	6	5	4	3.5	3	2	2	1.5	1	1	0.5	0.5	0.5	-	-
	13-13.9	7	5.5	4.5	4	3.5	2.5	2	1.5	1	1	1	0.5	0.5	0.5	-
	14-14.9	8	6.5	5	4.5	4	3	2.5	2	1.5	1	1	1	0.5	0.5	0.5
	15-15.9	9	7.5	6	5	4.5	3.5	3	2	1.5	1.5	1	1	0.5	0.5	0.5
	16-16.9	10	8	6.5	5.5	5	4	3	2.5	2	1.5	1	1	1	0.5	0.5
	17-17.9	11	9	7	6	5.5	4	3.5	2.5	2	1.5	1.5	1	1	0.5	0.5
	18-18.9	12	10	8	7	6	4.5	4	3	2	2	1.5	1.5	1	1	0.5
	19-19.9	13	11	8.5	7.5	6.5	5	4	3	2.5	2	1.5	1.5	1	1	0.5
	20+	14	11	9	8	7	5.5	4.5	3.5	2.5	2	2	1.5	1	1	0.5

Divide required Fall in Blood Glucose (mmol/l) by Insulin Sensitivity (IS)

### BOLUS INSULIN STEP 2: CALCULATE CORRECTION DOSE

**INSULIN SENSITIVITY** = Blood Glucose (BG) fall from each Unit of insulin = 100 ÷ Insulin Total Daily Dose (TDD).

**CORRECTION DOSE** = Insulin dose to lower Current BG to Target BG of 6 mmol/l

**TDD** = ALL BASAL (Levemir, Lantus) + ALL BOLUS (Novorapid, H'log) Insulin

**THEN ADD CARB DOSE TO CORRECTION DOSE** = (Current BG - 6) ÷ Insulin Sensitivity

= Number where "Current Blood Glucose" row meets "Insulin Sensitivity" column.