

Basal bolus insulin in type 1 diabetes - Calculations

Basal bolus insulin is used to replace the insulin that is no longer produced in type 1 diabetes. The 'basal bolus insulin' approach most closely matches how the body would make insulin in a person without type 1 diabetes.

Insulin:Carbohydrate (CHO) Ratio Calculations

Calculate how many units of insulin are required for each meal using your Insulin:CHO Ratio.

Insulin:Carbohydrate (CHO) Ratio	
___ unit of rapid acting insulin:	___ grams of carbohydrate
___ unit of rapid acting insulin:	15grams of CHO (exchange)

Example #1: Lunch

Turkey sandwich with 2 slices of bread	grams/exchanges
1 small apple	grams/exchanges
1 small flat white coffee	grams/exchanges
Answer	units of rapid acting insulin

Example #2: Breakfast

1 egg	grams/exchanges
2 rashers of bacon	grams/exchanges
1 serve of baked beans	grams/exchanges
2 pieces of toast	grams/exchanges
1 glass of orange juice	grams/exchanges
Answer	units of rapid acting insulin

Example #3: Dinner

Pork and vegetable stir fry	grams/exchanges
1 cup cooked rice	grams/exchanges
1 glass white wine	grams/exchanges
1 serve of cheesecake with blueberries	grams/exchanges
1 cup of tea	grams/exchanges
Answer	units of rapid acting insulin

Example #4: Lunch

Warm chicken salad	grams/exchanges
1 small dinner roll	grams/exchanges
1 diet coke	grams/exchanges
Answer	units of rapid acting insulin

Example #5: Dinner

1 greek yiros	grams/exchanges
1 serve hot chips	grams/exchanges
1 can of pepsi	grams/exchanges
Answer	units of rapid acting insulin



Insulin Sensitivity Factor Calculations

Correct the following blood glucose using your Insulin Sensitivity Factor (ISF) and target blood glucose (BG).

$$\frac{\text{Current BG} - \text{Target BG}}{\text{Insulin Sensitivity Factor (ISF)}}$$

Example #1:

Before Lunch BG:	15.0mmol/L
Ideal BG:	■ mmol/L
ISF:	1 unit of rapid acting insulin lowers my blood glucose by ■ mmol/L
Answer	■ units of rapid acting insulin

Example #2:

Before Dinner BG:	11.2mmol/L
Ideal BG:	■ mmol/L
ISF:	1 unit of rapid acting insulin lowers my blood glucose by ■ mmol/L
Answer	■ units of rapid acting insulin

Example #3:

Before Lunch BG:	3.0mmol/L
Ideal BG:	■ mmol/L
ISF:	1 unit of rapid acting insulin lowers my blood glucose by ■ mmol/L
Answer	■ units of rapid acting insulin

Example #4:

Before Breakfast BG:	14.3mmol/L
Ideal BG:	■ mmol/L
ISF:	1 unit of rapid acting insulin lowers my blood glucose by ■ mmol/L
Answer	■ units of rapid acting insulin

Example #5:

Before Dinner BG:	6.2mmol/L
Ideal BG:	■ mmol/L
ISF:	1 unit of rapid acting insulin lowers my blood glucose by ■ mmol/L
Answer	■ units of rapid acting insulin

For more information

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