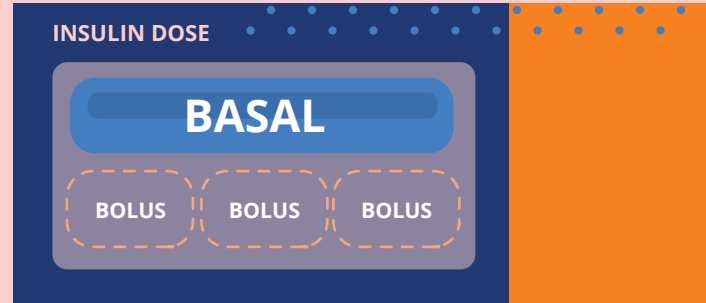


# basal <sup>×</sup> insulin

## — what is basal insulin?

Basal insulin, aka LONG-ACTING INSULIN, works in your body all day and night to keep your blood glucose levels stable.

Take your dose(s)\* of basal insulin at a consistent time every day, like right after you wake up or before you go to bed. Build it into your daily routine!



Basal insulins are usually taken once or twice daily.

Here are some common types:

once daily	twice daily	twice daily
100% MORNING OR EVENING	50% MORNING & 50% EVENING	20% MORNING & 80% EVENING
Glargine U-300 (e.g. toujeo) Degludec (e.g. tresiba)	Detemir (e.g. levemir) NPH (e.g. humulin N) NPH (e.g. novolin NPH)	Glargine U-100 (e.g. lantus) Glargine U-100 (e.g. basaglar)

## — calculate your basal dose

It's okay if you're not sure whether your basal dose is 50% of your daily insulin, or you're feeling lost about where to start.

Use these formulas to calculate a daily basal insulin dose that you can adjust to your body's needs over time. Remember, some people need less insulin and some people need more!



### FOR INJECTIONS

$$\text{body weight (kg)} \times 0.55 \frac{\text{units}}{\text{kg}} = \text{total daily dose (TDD) (units)} \div 2 = \text{daily basal dose (units)}$$

### FOR PUMPS

$$\text{daily basal dose (units)} \div 24\text{hrs} = \text{basal pump rate (units/hr)}$$

# basal insulin

## — check your basal dose

Use this log to track your blood glucose levels by checking each evening at bedtime and the following morning when you get up.

Make sure you haven't taken any bolus insulin or eaten anything within 4-5 hours before bed and that your bedtime blood glucose is around 7 to 9 mmol/L. This way, you can be confident that any changes in your blood glucose overnight is from the basal insulin.



### example

DAY	GLUCOSE AT BEDTIME (mmol/L)	GLUCOSE NEXT MORNING (mmol/L)	OVERNIGHT CHANGE (mmol/L)	MY NOTES
mon	9.4	5.1	-4.3	That drop is a bit big but close. I worked out today so that could be why.
tues	14.2	6.1	-8.1	Glucose was a bit high before going to bed so I took a small correction bolus. Looks like that was enough (and not too much) I won't count this as a test of my basal dose.
wed	5.6	14.1	+8.5	Hiked and kayaked all day and ate extra ice cream before bed. Not the best test day :)
thurs	8.4	4.8	-3.6	Hmm close but still a bit too big of a drop.
fri	9.2	3.6	-5.6	I only had half a glass of wine - and there were enough carbs with dinner.
sat	7.8	3.7	-4.1	Alrighty too much drop three tests in a row. Time to use the chart below to figure out what to do!
sun				Needed a break from testing today :)
one week later	9.2	3.6	-5.6	Nice and stable overnight - looks like the basal dose is about right. Probably should have taken a small correction (or not eaten so much popcorn last night)



# basal<sup>x</sup> insulin

— fill out your own:

DAY	GLUCOSE AT BEDTIME (mmol/L)	GLUCOSE NEXT MORNING (mmol/L)	OVERNIGHT CHANGE (mmol/L)	MY NOTES
mon				
tues				
wed				
thurs				
fri				
sun				
sat				

— review the notes section to see if this week felt like your normal routine or not...

If this week felt unusual, try tracking a more standard week to get a better sense of your body's basal insulin needs!

Did you eat differently than normal in the evenings?



did you remember to take insulin when you ate dinner?



Were you busier or more physically active some days?



## — adjust your basal dose

After tracking your blood glucose levels for a week, use this chart to help you figure out if you need to adjust your daily basal insulin dose:

# basal <sup>x</sup> insulin

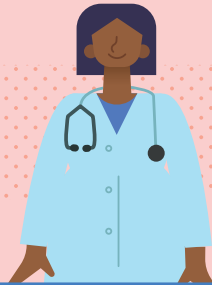


on average, how did your blood glucose change overnight this week?

increased by  
3 mmol/L or more

didn't change much

decreased by  
3 mmol/L or more



seems like you've got the right  
basal dose for now!

try increasing your basal dose by 5%  
basal dose                      5% increase

units

x 1.05 =

units

try decreasing your basal dose by 5%  
basal dose                      5% decrease

units

x 0.95 =

units

Take your adjusted basal dose  
for a week and fill out the log again!

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