

	Step 1: Choose Insulin Type to be administered subcutaneously	Step 2: Enter Starting Dose	Step 3: Enter Titration/Adjustment Instructions (Authorization) Amount to adjust dose by[units] and BG target to adjust to [mmol/L]	
BASAL	Long-acting analogues (clear) <input type="checkbox"/> Basaglar™ <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Lantus® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Levemir® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Semglee® <input type="checkbox"/> Prefilled pen Ultra Long-acting analogues (clear) <input type="checkbox"/> Tresiba® <input type="checkbox"/> U100 <input type="checkbox"/> U200 <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Toujeo™ <input type="checkbox"/> SoloSTAR <input type="checkbox"/> DoubleSTAR <input type="checkbox"/> Prefilled pen Intermediate acting (cloudy) <input type="checkbox"/> Humulin® N <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin® ge NPH <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial Once weekly basal insulin analogues (clear) <input type="checkbox"/> Awiqli® <input type="checkbox"/> Prefilled pen	Once daily dosing: ____ units at bedtime ____ units at _____ Twice daily dosing: ____ units at _____ ____ units at _____	†Adjust dose by _____ units every _____ until fasting blood glucose is at the person's individual target range of _____ mmol/L	
	BOLUS	Rapid-acting analogues (clear) Take 0-10 min before meal <input type="checkbox"/> Admelog® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Apidra® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Fiasp® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Humalog® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Humalog® 200 units/mL <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Kirsty™ <input type="checkbox"/> Prefilled pen <input type="checkbox"/> NovoRapid® <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Trurapi™ <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge Short-acting (clear) <input type="checkbox"/> Humulin® R <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin®ge Toronto <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial	ac Breakfast: ____ units ac Lunch: ____ units ac Dinner: ____ units	†Adjust BREAKFAST dose: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ____units every ____or more days Until 2hr pc Breakfast BG is less than: <input type="checkbox"/> 10.0 mmol/L or <input type="checkbox"/> ____mmol/L OR until ac Lunch BG is between: <input type="checkbox"/> 4.0–7.0 mmol/L or <input type="checkbox"/> ____–____mmol/L
				†Adjust LUNCH dose: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ____units every ____or more days Until 2hr pc Lunch BG is less than: <input type="checkbox"/> 10.0 mmol/L or <input type="checkbox"/> ____mmol/L OR until ac Dinner BG is between: <input type="checkbox"/> 4.0–7.0 mmol/L or <input type="checkbox"/> ____–____mmol/L
				†Adjust DINNER dose: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ____units every ____or more days Until 2hr pc Dinner BG is less than: <input type="checkbox"/> 10.0 mmol/L or <input type="checkbox"/> ____mmol/L
PREMIXED	Premixed analogues (cloudy) Take 0-10 min before meal <input type="checkbox"/> Humalog® Mix 25™ <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Humalog® Mix 50™ <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Cartridge <input type="checkbox"/> Novomix® 30 <input type="checkbox"/> Cartridge Premixed regular (cloudy) Take 30 min before meal <input type="checkbox"/> Humulin® 30/70 <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin®ge 30/70 <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial	ac Breakfast: ____ units ac Dinner: ____ units	†Adjust BREAKFAST dose: 1 unit every 1 or more days OR <input type="checkbox"/> up to ____ units every ____or more days Until ac Dinner BG is between: <input type="checkbox"/> 4.0 – 7.0 mmol/L or <input type="checkbox"/> ____ mmol/L Without causing hypoglycemia post-breakfast.	
			†Adjust DINNER dose: 1 unit every 1 or more days OR <input type="checkbox"/> up to ____ units every ____or more days Until ac Fasting BG is between: <input type="checkbox"/> 4.0 – 7.0 mmol/L or <input type="checkbox"/> ____ mmol/L Without causing hypoglycemia post-breakfast.	
MITTE	Insulin: ____boxes x____repeats (<i>Units/box: Cartridges & prefilled pens = 1500, Vials = 1000</i>)	Notes:		Prescriber Information/Stamp: Name (printed): License #: Address: Tel: Fax: Date (M/D/YY) Signature:
	Supplies: ____boxes x____repeats (<i>Units/box: Cartridges & prefilled pens = 1500, Vials = 1000</i>)			
OTHER ANTIHYPERGLYCEMIC AGENT(S) Rx: Upon Insulin Initiation				
To Discontinue:	To Continue (new Rx) (<i>name, route, dose & frequency</i>):			
Adapted from: the Ontario College of Family Physicians Insulin Prescription Tool - March 2014 using the 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada and the Diabetes Canada Insulin Prescription Tool. Last revised February 4, 2026 Abbreviations: CBG=capillary blood glucose (mmol/L); ac=before meal; pc=after meal †Adjustment is made to one insulin dose per day				

INSULIN INITIATION AND TITRATION SUGGESTIONS (For type 2 diabetes)

People starting insulin should be counseled about the prevention, recognition and treatment of hypoglycemia

The following are suggestions for insulin initiation and titration. Clinical judgment should always be used as the suggestions may not apply to every patient.

Basal Insulin (only) added to Oral Antihyperglycemic Agents (Basaglar™, Lantus®, Levemir®, Semglee®, Toujeo™, Tresiba®, Humulin® N, Novolin®ge NPH)

- Target fasting blood glucose (BG) of 4-7 mmol/L. Fasting BG target can be changed to 4-5.5 mmol/L if not achieving adequate overallglycemic control
- Most patients will need 40-50 units a day to achieve target but there is no maximum dose
- Start at a low dose of 10 units at bedtime (may start at lower dose (0.1-0.2 units/kg) for lean patients (< 50 kg))
- If using Tresiba®, the dose can be increased by 2-4 units every week until fasting BG target is achieved
- If using other basal insulin, patients should self-titrate by increasing the dose by 1 unit every 1 night until fasting BG target achieved
- When fasting BG target is achieved, the patient should remain on that dose until reassessed by their diabetes team
- If fasting hypoglycemia occurs, the dose of bedtime basal should be reduced
- Metformin and the secretagogue are usually maintained when basal insulin is added
- If daytime hypoglycemia occurs, reduce the oral antihyperglycemic agents (especially secretagogues)
- Toujeo™, Tresiba®, Semglee®, Lantus® or Levemir® , can be given at bedtime or in the morning

Dosing and Titration Example

Starting dose 10 units at bedtime

Increase dose by 1 unit every 1 night until fasting blood glucose has reached the target of 4-7 mmol/L

Basal & Bolus Insulins

- When basal insulin added to antihyperglycemic agents is not enough to achieve glycemic control, bolus insulin should be added before meals. There is the option of only adding bolus insulin to the meal with the highest postprandial BG as a starting point for the patient who is not ready for more injections.
- For current basal insulin users, maintain the basal dose and add bolus insulin with each meal at a dose equivalent to 10% of the basal dose. For example, if the patient is on 50 units of basal insulin, add 5 units of bolus insulin with each meal
- Typically, insulin secretagogues are stopped and only metformin is continued when bolus (prandial) insulin is added
- For new insulin users starting with Basal + Bolus regimen, calculate total daily insulin dose (TDI) as 0.3 to 0.5 units / kg, then distribute as follows:
 - 40% of TDI dose as basal insulin (Basaglar™, Lantus®, Levemir®, Semglee®, Humulin® N, Novolin®ge NPH) at bedtime. If using Toujeo™ or Tresiba®, may give morning or bedtime
 - 20% of TDI dose as bolus insulin prior to each meal
- Rapid-acting insulin analogues (Apidra®, Fiasp®, Humalog®, Admelog™, NovoRapid®,Trurapi™) should be given 0-10 minutes before eating
- Short-acting insulin (Humulin® R, Novolin®ge Toronto) should be given 30 minutes before eating
- An alternative distribution is 50% basal insulin (at bedtime) and 50% bolus insulin (distributed among the meals of the day)
- Adjust the dose of the basal insulin to achieve the target fasting BG level (usually 4-7 mmol/L)
- Adjust the dose of the bolus insulin to achieve postprandial BG levels (usually 5-10 mmol/L) or pre-prandial BG levels for the next meal (usually 4-7 mmol/L)

Dosing Example (100 kg person)

Total daily insulin = 0.5 units/kg:
0.5 x 100 kg (TDI)
• TDI = 50 units

Basal insulin = 40% of TDI:
40% x 50 units
• Basal bedtime = 20 units

Bolus insulin = 60% of TDI:
60% x 50 units
• Bolus = 30 units
= 10 units with each meal

Premixed Insulin before breakfast and before dinner (Humalog® Mix25®, Humalog Mix50®, NovoMix® 30, Humulin® 30/70, Novolin®ge 30/70)

- Target fasting and pre-supper BG levels of 4-7 mmol/L
- Most patients with type 2 diabetes will need 40-50 units twice a day to achieve target but there is no maximum dose
- Start at a low dose of 5 to 10 units twice daily (before breakfast and before supper)
- Patient can gently self-titrate by increasing the breakfast dose by 1 unit every day until the pre-supper BG is at target
- Patient can gently self-titrate by increasing the supper dose by 1 unit every day until the fasting BG is at target
- Beware of hypoglycemia post-breakfast or post-supper. Stop increasing dose if this occurs
- When target BG levels are achieved, the patient should remain on that dose until reassessed by their diabetes team
- Premixed analogue insulins (Humalog® Mix25®, Humalog Mix50®, NovoMix® 30) should be given 0-10 minutes before eating
- Premixed regular insulins (Humulin® 30/70, Novolin®ge 30/70) should be given 30 minutes before eating
- Continue the meformin and consider stopping the secretagogue.

Dosing and Titration Example

10 units ac breakfast, 10 units ac supper

Increase breakfast dose by 1 unit every 1 day until pre-supper blood glucose has reached the target of 4-7 mmol/L (usual target).

Increase supper dose by 1 unit every 1 day until fasting blood glucose has reached the target of 4-7 mmol/L (usual target).

Selection of Pen Needle

- Forum for Injection Technique (FIT) Canada recommends that 4, 5, and 6mm needles are suitable for all people with diabetes regardless of BMI. In addition, there is no clinical reason for recommending needles longer than 8mm. Initial insulin therapy should start with the shorter needle length (Berard L, et al. FIT Forum for Injection Technique Canada. Recommendations for Best Practice in Injection Technique. 4th edition 2020
*Source: Ontario College of Family Physicians Insulin Prescription Tool & Diabetes Canada Insulin Prescription Tool - Updated March 2022