



Action	1	Insulin Name	Onset	Peak	Effective Duration	Considerations	
Bolus	Very Rapid Acting Analogs	Aspart (Fiasp)	2.5 min	~ 60 min	3 - 5 hrs	Bolus insulin lowers	
		Lispro-aabc (Lyumjev)	1 min	~60 min	4-5 hrs	after-meal glucose. Post meal BG reflects efficacy.	
	Rapid Acting Analogs	Aspart (Novolog)	5 - 15 min	30 - 90 min	< 5 hrs		
		Lispro (Humalog)*, Admelog				Basal insulin controls BG between meals and nighttime. Fasting BG reflects efficacy.	
		Glulisine (Apidra)					
	Short Acting	Regular*	30 - 60 min	2 - 3 hrs	5 - 8 hrs		
	Intermediate	NPH	2 - 4 hrs	4 - 10 hrs	10 - 16 hrs	Side effects: hypoglycemia, weight gain. Typical dosing range: 0.5-1.0 units/ kg body wt/day.	
Basal	Long Acting	Detemir (Levemir)	3 - 8 hrs	No peak	6 - 24 hrs		
		Glargine (Lantus*/ Basaglar)	2 - 4 hrs		20 - 24 hrs		
		Degludec (Tresiba)*	~ 1 hr	,	< 42 hrs		
Basal + Bolus	Intermediate + short	Combo of NPH + Reg 70/30 = 70% NPH + 30% Reg 50/50 = 50% NPH + 50% Reg	30 - 60 min	Dual peaks	10 - 16 hrs	Discard open vials after 28 days. For pen storage guidelines, see package insert.	
	Intermediate + rapid	Novolog® Mix - 70/30 Humalog® Mix - 75/25 or 50/50	5 - 15 min	heavs	24 hrs		

^{*}Concentrated insulins available - see next page for details.

Name/Concentration	Insulin/Action	Considerations			
Humulin Regular U-500 • 500 units insulin/mL • KwikPen or Vial	Regular Bolus / Basal	5 xs concentration of u-100 insulin. Indicated for pts taking 200+ units insulin daily. 3 mL Pen – Once opened, good for 28 days. 20 mL Vial – Once opened, good for 40 days. Use designated U-500 insulin syringe.			
Humalog KwikPen U-200	Lispro (Humalog)	2 xs concentration of u-100 insulin.			
200 units insulin/mL	Bolus	3 mL Pen. Once opened, good for 28 days			
Toujeo Solostar U-300 Pen	Glargine (Lantus)	3 xs concentration of u-100 insulin			
300 units insulin/mL	Basal	1.5 mL or 3 mL (Max Solostar) Pen.			
Tresiba FlexTouch U-200 Pen	Degludec (Tresiba)	2 xs concentration of u-100 insulin			
200 units insulin/mL	Ultra basal	3 mL Pen. Once opened, good for 8 weeks			

All concentrated insulin pens and the U-500 syringe automatically deliver correct dose (in less volume). No conversion, calculation or adjustments required. For example, if order reads 30 units, dial the concentrated pen to 30 units or draw up 30 units on the U-500 syringe. Important – never withdraw concentrated insulin from the pen using a syringe.

Inhaled Insulin

Action	Insulin Name	Dose Range	Onset	Peak	Duration	Considerations
Bolus – Rapid-acting	Afrezza Inhaled regular human insulin	4, 8, and 12 unit cartridges before meals	~ 12 min	35 - 45 mins	1.5 - 3 hrs	Assess lung function. Avoid in lung disease — bronchospasm risk. Side effects: hypo, cough, throat irritation.