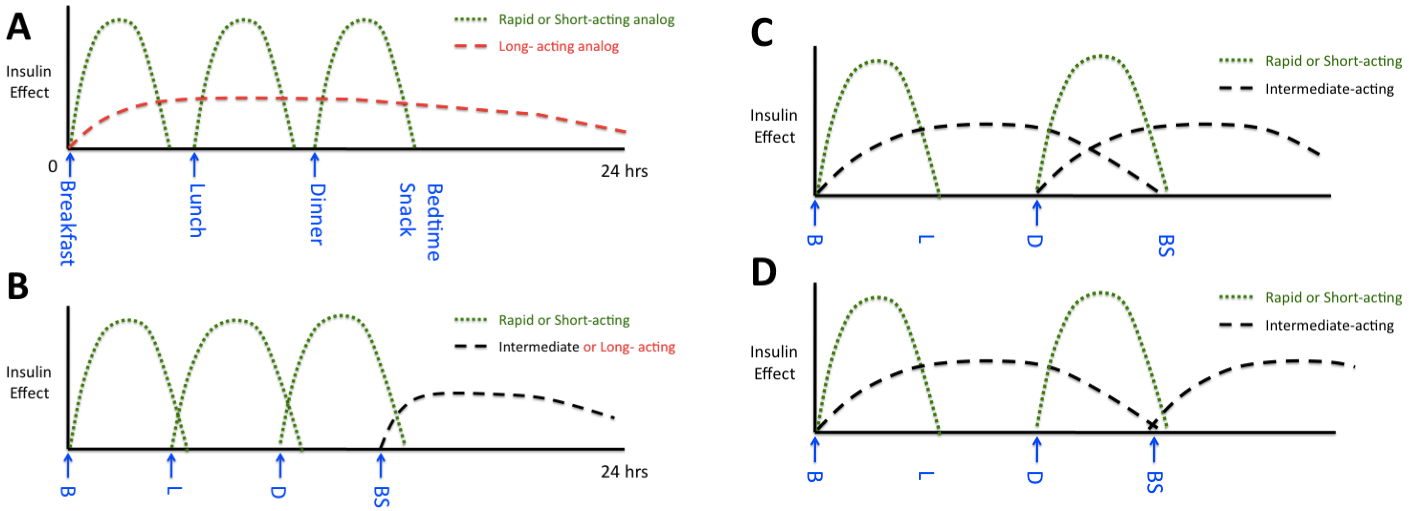
Diabetes Medication Reference
Insulins

Generic (Brand)	Onset		Peak	Duration	Half life	Dose Adjustments	Appearance	May it be mixed?	When to administer	Additional monitoring to HbA1c and plasma glucose
Insulin lispro (Humalog)	Rapid	0.25-0.5hrs[1]	0.5-2.5hrs[1]	≤5hrs[1]	~1hr[1]	CrCl 10-50mL/min administer 75% of dose; CrCl <10mL/min administer 50% of dose[1]	Clear, colorless[1]	Yes from the vial only, rapid acting (clear) insulin must be added to the syringe first.1,3,4	Within 15 minutes before a meal[2]	Potassium[1]
Insulin aspart (Novolog)		0.2-0.3hrs[3]	1-3hrs[3]	3-5hrs[3]	81min[3]	No adjustments needed[3]	Clear, colorless[3]		Within 5-10 minutes before a meal[3]	Electrolytes, potassium[3]
Insulin glulisine (Apidra)		0.2-0.5hrs[4]	1.6-2.8hrs[4]	3-4hrs[4]	42min[4]	No adjustments needed[4]	Clear, colorless[4]		15 minutes before or within 20 minutes of starting a meal[4]	Electrolytes, potassium[4]
Insulin regular (Humulin R, Novolin R)	Short	0.5hrs[5]	2.5-5hrs[5]	U-100: 4-12hrs U-500: up to 24hrs[5]	1.5hrs[5]	CrCl 10-50mL/min administer 75% of dose; CrCl <10mL/min administer 25-50% of dose[5] **U-500 should be converted to U-100 units to avoid confusion when drawing up in a U-100 syringe[5]**	Clear, colorless[5]	Yes from the vial only, insulin regular should be added to the syringe first[5]	30-60 minutes before a meal[5]	DM[5]: electrolytes, potassium DKA/HHS[5]: electrolytes, BUN, SCr, osmolality, venous pH, anion gap, urine output, UA, mental status
Insulin NPH (Humulin N, Novolin N)	Intermediate	1-2hrs[6]	4-12hrs[6]	14-24hrs[6]	4.4hrs[7]	No adjustments needed[6]	Cloudy or milky[6]	Yes, NPH should be drawn up after all other types of insulin[6]	Before every use the vial should be rolled between the palms to get good consistency of the suspension. Administered once to twice daily.[6]	Electrolytes[6]
Insulin glargine (Lantus)	Long	3-4hrs[8]	No pronounced peak[8]	10.8-32hrs (~24 hrs)[8]	24hrs[9]	No adjustments needed[8]	Clear, colorless[8]	No[8]	Once daily, anytime of day, but always at the same time every day[8]	Electrolytes[8]
Insulin detemir (Levemir)		3-4hrs[10]	3-9hrs[10]	6-23hrs (dose dependent)[10]	5-7hrs (dose dependent)[10]	No adjustments needed[10]	Clear, colorless[10]	No[10]	Once to twice daily. When given twice daily administer 12 hours from morning dose or with the evening meal[10]	Electrolytes, lipid panel, renal function[10]
70% insulin aspart protamine suspension 30% insulin aspart injection (Novolog 70/30)	Mixed	10-20min[11]	1-4hrs[11]	18-24hrs[11]	~8-9hrs[11]	No adjustments needed[11]	Cloudy or milky[11]	No[11]	Usually twice daily. Administer within 15 minutes before or after a meal. Vial should be rolled between the palms to achieve proper consistency[11]	Electrolytes[11]
75% insulin lispro protamine 25% insulin lispro (Humalog 75/25)		0.25-0.5hrs[12]	1-6.5hrs[12]	14-24hrs[12]	Cannot be calculated[13]	No adjustments needed[12]	Cloudy or milky[12]	No[12]	Once to twice daily give 15 minutes before a meal. Vial should be rolled between the palms to achieve proper consistency[12]	Electrolytes[12]
50% insulin lispro protamine 50% insulin lispro (Humalog 50/50)			0.8-4.8hrs[12]							
70% insulin NPH 30% insulin regular (Humulin 70/30, Novolin 70/30)		0.5hrs[14]	2-12hrs[14]	18-24hrs[14]	Cannot be calculated[15]	No adjustments needed[14]	Cloudy or milky[14]	No[14]	Once to twice daily 30 minutes before a meal. Vial should be rolled between the palms to achieve proper consistency[14]	Electrolytes[14]

Initial Dosing Guidelines

"Start low, and go slow[16]
1 unit for every 10g of carbohydrate[16]
Once-daily Insulin Therapy: starting dose: 0.1-0.25 units/kg/day[17]
Multi-dose Insulin Therapy: starting dose: 0.3-0.5 units/kg/day[17]
Typical starting regimen: Insulin glargine 10 units at bedtime ± mealtime coverage[16]

Sample Dosing Regimens18:



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This document is intended for educational purposes only as a quick reference guide to commonly used diabetes drugs. Information contained herein is condensed and incomplete. Please refer to full prescribing information and additional reference materials for detailed information on a specific drug or drug use, dosing in special populations and drug use in patients with specific medical conditions. DFMC/DFMC are not responsible for any omissions or errors. This document is not intended to override a clinician's judgment in individual patient management.

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