

## Comparison of Insulin Preparations

Insulin Preparation	Onset of Action	Peak	Duration of Action	Instructions to Consider on the Timing of Insulin	Instructions to Consider on Eating
<b>Rapid-acting insulin analogs</b>					
lispro (Humalog) aspart (Novolog) glulisine (Apidra)	5 to 15 minutes	1 to 2 hours	4 to 5 hours	Rapid-acting insulin for meals and to correct elevated blood glucose after meals.	Take insulin during or after the meal. Take sooner if blood glucose is elevated before the meal.
<b>Short-acting insulin or regular</b>					
(Humulin Regular) (Novulin Regular)	20 to 60 minutes	2 to 4 hours	8 to 10 hours	Regular insulin for meals for those with autonomic gastroparesis who have postprandial hypoglycemia with a rapid-acting insulin.	Eat a meal within thirty minutes of taking regular insulin.
<b>Intermediate-acting insulin or NPH</b>					
(Humulin NPH) (Novolin NPH)	1 to 2 hours	4 to 8 hours	10 to 20 hours	Not recommended, use long-acting (basal) insulin instead.	Not recommended, use long-acting (basal) insulin instead.
<b>Long-acting insulin analogs</b>					
detemir (Levemir) glargine (Lantus)	1 to 2 hours 1 to 2 hours	Fairly flat Fairly flat	12 to 20 hours 20 to 24 hours	Take long-acting (basal) insulin once or twice daily. If dose is > 14 units/day, consider dividing into two doses, 12 hours apart, take at the same time each day.	Take long-acting (basal) insulin even when not eating, however, may need a smaller dose if exercising, not eating, or both.
<b>NPH/regular pre-mix 70/30 = 70% NPH/30% regular</b>					
Two brands available: Humulin or Novulin					
NPH/Rapid-acting insulin Two brands available: PreMix Novolog 70% NPH/30% aspart PreMix Humalog 75% NPH/25% lispro	Onset based on action of specific insulin.	Peak based on action of specific insulin.	Duration based on action of specific insulin.	Not recommended, use a long-acting (basal) insulin with a rapid-acting or short-acting insulin with meals instead.	Not recommended, use a long-acting (basal) insulin with a rapid-acting or short-acting insulin with meals instead.