INSULIN QUICK REFERENCE

Onset = starts working • Peak = strongest effect • Duration = how long it works

Type	Insulin / common brands	Onset	Peak	Duration	Key nursing point
Rapid-acting	Lispro (Humalog) Aspart (NovoLog) Glulisine (Apidra)	5-15 min	45-75 min	3-5 hr	Mealtime / correction insulin. Have food ready; follow product timing.
Short-acting	Regular U-100 (Humulin R, Novolin R)	30-60 min	2-4 hr	6-8 hr	Usually ~30 min before meals.* IV regular insulin is used in DKA per protocol.
Intermediate	NPH (Humulin N, Novolin N)	~2 hr	4-12 hr	18-26 hr	Cloudy; provides background coverage. Watch for delayed hypoglycemia.
Long-acting	Glargine U-100 (Lantus, Basaglar)	3-4 hr	No distinct peak	~24 hr	Basal / background insulin. Do not mix with other insulins.
Long-acting	Detemir (Levemir) (included in your lecture)	1-2 hr	No distinct peak	14-24 hr	Basal coverage; duration varies by dose. Do not mix with other insulins.
Ultra-long	Degludec (Tresiba)	1-2 hr	No distinct peak	>40 hr	Long-lasting basal coverage. Do not mix with other insulins.

REMEMBER: Peak effect increases hypoglycemia risk; no peak does **not** mean no risk. Check glucose and meal status.
Mixing: If ordered and compatible, draw clear insulin before cloudy NPH. **Potassium:** Insulin moves K+ into cells, lowering serum K+.

Timing note: Approximate subcutaneous ranges (Merck); sources and patient responses vary. These are not IV timings. Faster formulations (e.g., Fiasp), concentrated glargine (Toujeo), and premixes have different profiles.

***Course discrepancy:** Pharmacy lecture slide 29 says regular insulin up to 15 min before meals; Humulin R labeling says approximately 30 min. Clarify the exam expectation with your instructor; clinically follow the order and product instructions.

Sources: Pharmacy Diabetes Lecture with Audio, slides 27-32; Diabetes1&2 CMcCain, slide 23. Timing: Merck Manual insulin table. Meal timing: Humulin R prescribing information.