

INSULINS

| Preparation | Brand | | Route | Onset (mins) | Peak (hrs) | Duration (hrs) | Source |
|---|---------------------------------------|-----|---|--------------|------------|----------------|--------|
| RAPID-ACTING | | | | | | | |
| insulin | Afrezza ¹ | ℞ | oral inh | 12 | 0.5–1 | 1.5–4.5 | human |
| insulin aspart | Fiasp ² | ℞ | SC, IV ⁴ , CSII | 16–20 | 1.5–2 | 5–7 | human |
| | Novolog ² | ℞ | SC, IV ⁴ , CSII | 10–20 | 1–3 | 3–5 | human |
| insulin glulisine | Apidra ³ | ℞ | SC, IV ⁴ , CSII | ≤15 | 1 | 2–4 | human |
| insulin lispro | Admelog ³ | ℞ | SC, IV ⁴ , CSII | ≤15 | 2 | <6 | human |
| | Humalog ³ | ℞ | SC, IV ^{4,5} , CSII ⁵ | ≤15 | 0.5–1.5 | 3–5 | human |
| insulin lispro-aabc | Lyumjev ³ | ℞ | SC, IV ^{4,5} , CSII ⁵ | 15–17 | 2–2.9 | 4.6–7.3 | human |
| SHORT-ACTING | | | | | | | |
| insulin regular | Humulin R U-100 ¹ | OTC | SC, IV ⁴ | ~30 | ~3 | ~8 | human |
| | Humulin R U-500 ¹ | ℞ | SC | <15mins | 4–8 | 21 | human |
| | Novolin R ² | OTC | SC, IV ⁴ | 30 | 1.5–2.5 | 8 | human |
| INTERMEDIATE-ACTING | | | | | | | |
| insulin isophane suspension (NPH) | Humulin N ¹ | OTC | SC | 60–120 | 6.5 | 18–24 | human |
| | Novolin N ² | OTC | SC | 60–120 | 4–12 | up to 24 | human |
| SHORT- AND INTERMEDIATE-ACTING MIXTURES | | | | | | | |
| insulin aspart protamine/insulin aspart | Novolog Mix 70/30 ² | ℞ | SC | 10–20 | 1.8–3.6 | up to 24 | human |
| insulin isophane suspension (NPH)/insulin regular | Humulin 70/30 ¹ | OTC | SC | 30–90 | 1.5–6.5 | 18–24 | human |
| | Novolin 70/30 ² | OTC | SC | 30 | 2–12 | up to 24 | human |
| insulin lispro protamine/insulin lispro | Humalog Mix 50/50 ³ | ℞ | SC | ≤15 | 1–5 | 11–22 | human |
| | Humalog Mix 75/25 ³ | ℞ | SC | ≤15 | 1–6 | 13–22 | human |
| LONG-ACTING | | | | | | | |
| insulin degludec | Tresiba ³ | ℞ | SC | 60 | none | ≥42 | human |
| insulin detemir | Levemir ³ | ℞ | SC | 60 | none | up to 24 | human |
| insulin glargine | Basaglar ³ | ℞ | SC | 60 | none | ≥24 | human |
| | Lantus ³ | ℞ | SC | 60 | none | ≥24 | human |
| | Semglee ³ | ℞ | SC | varies | none | ≥24 | human |
| | Toujeo ³ | ℞ | SC | 360 | none | up to 36 | human |

NOTES

Key: CSII = continuous subcutaneous insulin infusion; inh = inhalation; IV = intravenous infusion; SC = subcutaneous inj

¹Recombinant (using *E. coli*)

²Recombinant (using *S. cerevisiae*)

³Recombinant human insulin analogue

⁴IV to be used in a clinical setting under proper medical supervision

⁵IV and CSII administration for U-100 only.

The time course of action of insulin and insulin analogs may vary considerably in different individuals or within the same individual. All times are approximate. The parameters of insulin activity (time of onset, peak time and duration) should be considered only as general guidelines. Onset for injectable formulations is always for the SC route. Injectable insulins listed are available in a concentration of 100Units/mL; Humulin R, in a concentration of 500Units/mL for SC injection only, is available by prescription from Lilly for insulin resistant patients who are hospitalized or under close medical supervision.

Not an inclusive list of medications and/or dosing instructions. Please see drug monograph at www.eMPR.com and/or contact company for full drug labeling.

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