

# INSULINS

**Insulin products available and defined according to derivation, onset\*, peak, and duration\*\* of action. Route of administration is also shown.**

Preparation	Brand		Manufacturer	Route	Onset (hours)	Peak (hours)	Duration (hours)	Source
Insulin Aspart	<b>NovoLog<sup>2</sup></b>	℞	<i>Novo Nordisk</i>	SC, IV, CSII	≤0.25	1-3	3-5	human
Insulin Aspart Protamine/ Insulin Aspart	<b>NovoLog Mix 70/30<sup>2</sup></b>	℞	<i>Novo Nordisk</i>	SC	≤0.25	2.4	24	human
Insulin Detemir	<b>Levemir<sup>2</sup></b>	℞	<i>Novo Nordisk</i>	SC	1	none	24	human
Insulin Glargine	<b>Lantus<sup>3</sup></b>	℞	<i>Sanofi Aventis</i>	SC	1.1	none	≥24	human
Insulin Glulisine	<b>Apidra<sup>3</sup></b>	℞	<i>Sanofi Aventis</i>	SC, CSII, IV***	≤0.25	1	2-4	human
Insulin Lispro	<b>Humalog<sup>3</sup></b>	℞	<i>Lilly</i>	SC, CSII	≤0.25	1	3.5-4.5	human
Insulin Lispro Protamine/ Insulin Lispro	<b>Humalog Mix 75/25<sup>3</sup></b>	℞	<i>Lilly</i>	SC	≤0.25	0.5-1.5	24	human
	<b>Humalog Mix 50/50<sup>3</sup></b>	℞	<i>Lilly</i>	SC	≤0.25	1	16	human
Insulin Injection Regular (R)	<b>Humulin R U-100<sup>1</sup></b>	OTC	<i>Lilly</i>	SC, IM, IV***	0.5	2-4	6-8	human
	<b>Humulin R U-500<sup>1</sup></b>	℞	<i>Lilly</i>	SC	0.5	1.75-4	24	human
	<b>Novolin R<sup>2</sup></b>	OTC	<i>Novo Nordisk</i>	SC, IM, IV	0.5	2.5-5	8	human
Insulin Isophane Suspension (NPH)/ Regular Insulin (R)	<b>Humulin 70/30<sup>1</sup></b>	OTC	<i>Lilly</i>	SC	0.5	2-12	24	human
	<b>Novolin 70/30<sup>2</sup></b>	OTC	<i>Novo Nordisk</i>	SC	0.5	2-12	24	human
Insulin Isophane Suspension (NPH)	<b>Humulin N<sup>1</sup></b>	OTC	<i>Lilly</i>	SC	1-2	6-12	18-24	human
	<b>Novolin N<sup>2</sup></b>	OTC	<i>Novo Nordisk</i>	SC	1.5	4-12	24	human

## NOTES

CSII = continuous subcutaneous insulin infusion, IM = intramuscular injection, IV = intravenous infusion, SC = subcutaneous injection

\*Onset for injectable formulations is always for the SC route. All times are approximate.

\*\*Maximum effect occurs between these times; actual effect may last longer.

\*\*\*IV to be used in a clinical setting under proper medical supervision.

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.

<sup>1</sup>Recombinant (using *E. coli*).

<sup>2</sup>Recombinant (using *S. cerevisiae*).

<sup>3</sup>Recombinant human insulin analogue (using *E. coli*).

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