

HUMAN INSULIN PREPARATIONS

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Insulin type	Brand	Onset	Time to peak	Duration	Refs
Ultra-short acting					
Aspart	FiAsp	5 - 10 mins	30 minutes	3.5 - 4 hours	1
Rapid acting					
Aspart	Novorapid	15 - 20 mins	30 minutes	3.5 – 4.5 hours	1
Aspart	Novorapid	< 15 mins	1 – 2 hours	4 – 6 hours	3
Aspart	Novolog	10 - 15 mins	1 – 3 hours	3 – 5 hours	2
Glulisine	Apidra	15 - 20 mins	30 minutes	3.5 – 4.5 hours	1
Glulisine	Apidra	5 - 15 mins	1 – 3 hours	3 – 5 hours	2
Glulisine	Apidra	< 15 mins	1 – 2 hours	4 – 6 hours	3
Lispro	Humalog	15 - 20 mins	30 minutes	3.5 – 4.5 hours	1
Lispro	Humalog	< 15 mins	1 – 2 hours	4 – 6 hours	3
Lispro	Humalog	10 -15 mins	1 – 3 hours	3 – 5 hours	2
Short acting/ Regular					
Neutral	Actrapid	1 hour	2 - 5 hours	6 - 8 hours	1
Neutral	Humulin R	1 hour	2 - 5 hours	6 - 8 hours	1
Neutral	Humulin R	30 – 60 minutes	2 - 4 hours	5 - 8 hours	2
Neutral	Novolin R	30 – 60 minutes	2 - 4 hours	5 - 8 hours	2
Intermediate acting					
Isophane	Humulin NPH	1 - 3 hours	8 hours	12 – 16 hours	1
Isophane	Humulin NPH	1 - 2 hours	6 - 10 hours	12+ hours	3
Isophane	Humulin N	1 - 2 hours	4 - 12 hours	14 - 24 hours	2
Isophane	Novolin N	1 - 2 hours	4 - 12 hours	14 - 24 hours	2
Isophane	Protophane	1.5 hours	4 - 12 hours	24 hours	1
Long-acting/ Basal					
detemir	Levemir	3 - 4 hours	3 – 8 hours	20 – 24 hours	1
detemir	Levemir	1 hour	3 – 14 hours	≤ 24 hours	2
detemir		1 hour	5 hours	12 – 24 hours	3
glargine	Optisulin	1 - 2 hours	Peakless	18 – 24 hours	1
glargine	Semglee	1 - 2 hours	Peakless	18 – 24 hours	1
glargine	Toujeo	1 - 2 hours	Peakless	24 – 36 hours	1
glargine	Toujeo	6 hours	Peakless	≤ 36 hours	2
glargine		1.5 hours	5 hours	24 hours	3
glargine	Lantus	2 - 4 hours	Peakless	≤ 24 hours	4
glargine	Lantus	3 - 4 hours	Peakless	≤ 24 hours	2
degludec	Tresiba	1 hour	Peakless	≤ 42 hours	2

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Insulin type	Brand	Onset	Time to peak	Duration	Refs
Premixed with short acting insulin					
30% neutral 70% isophane (NPH)	Humulin 30/70	1 - 2 hours	2 - 5 hours	12 - 18 hours	1
30% neutral 70% isophane	Mixtard 30/70	1 - 2 hours	2 - 5 hours	12 - 18 hours	1
50% neutral 50% isophane (NPH)	Mixtard 50/50	1 - 2 hours	2 - 5 hours	12 - 18 hours	1
Premixed with ultra-short acting insulin					
70% degludec 30% aspart	Ryzodeg 70/30	5 - 20 minutes	1 hour	36 - 48 hours	1
25% lispro 75% lispro protamine	Humalog Mix 25	15 - 20 minutes	1 hour	14 - 24 hours	1
25% lispro 75% lispro protamine	Humalog	5 - 20 minutes	1 - 2 hours	10 - 16 hours	2
Lispro 50%, lispro protamine 50%	Humalog Mix 50	15 - 20 minutes	1 hour	14 - 24 hours	1
Lispro 50%, lispro protamine 50%	Humalog	5 - 20 minutes	1 - 2 hours	10 - 16 hours	2
aspart 30%, aspart protamine 70%	NovoMix 30	15 - 20 minutes	1 hour	14 - 24 hours	1
aspart 30%, aspart protamine 70%	NovoLog	5 - 20 minutes	1 – 2 hours	10 - 16 hours	2

References

1 The Royal Australian College of General Practitioners. 2021. [Management of type 2 diabetes: A handbook for general practice](#). East Melbourne, Vic: RACGP, 2020.

2 Injectable Insulin Medications <https://my.clevelandclinic.org/health/drugs/13902-injectable-insulin-medications>. Accessed 2022-07-01.

3 Diabetes Insulin Medications. . Accessed 2022-07-01.

4 FDA Access data. Lantus. https://www.accessdata.fda.gov/drugsatfda_docs/label/2007/021081s024lbl.pdf Accessed 2022-07-01.