

Antidiabetic Medication Comparison Chart

Generic Name Brand name	Expected % decrease in A1c*	Hypoglycemia in monotherapy	Weight	Renal/GU	GI SX	CHF	CVD	Bone Health	Other considerations	Effect on blood glucose	Site of action	Cost \$
Alpha-Glucosidase Inhibitors												
Acarbose[^] (Precose)	0.5-0.8	Neutral	Neutral	Neutral	Moderate	Neutral	Neutral	Neutral	Take with first bite of food	Post prandial	Intestines liver	100
Miglitol (Glyset)	0.5-0.8	Neutral	Neutral	Neutral	Moderate	Neutral	Neutral	Neutral	Take with first bite of food	Post prandial	Intestines liver	200
Biguanide												
Metformin[^] (Foramet, Glucophage, Glucophage XR, Glumetza, Riomet)	1-2	Neutral	Slight loss	Cont. CKD stage 3B, 4, 5 Crcl 45-60: monitor Crcl 30-45: decrease dose and monitor	Moderate	Neutral (if stable)	Benefit	Neutral	Lactic acidosis risk increases with increased age, CHF, and hepatic insufficiency	Fasting & Basal	Liver Intestines muscles	4
Dipeptidyl Peptidase IV (DPP-4) Inhibitors												
Alogliptin (Nesina)	0.6	Neutral	Neutral	Dose adj. Crcl < 60	Neutral	Neutral	Neutral	Neutral	Pancreatitis, liver disease	Post prandial	Pancreas, liver	340
Linagliptin (Tradjenta)	0.4	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Pancreatitis, liver disease	Post prandial	Pancreas, liver	350
Saxagliptin (Onglyza)	0.4-0.5	Neutral	Neutral	Dose adj. Crcl < 50	Neutral	Neutral	Neutral	Neutral	Pancreatitis, liver disease	Post prandial	Pancreas, liver	350
Sitagliptin (Januvia)	0.5-0.8	Neutral	Neutral	Dose adj. Crcl < 50	Neutral	Neutral	Neutral	Neutral	Pancreatitis, liver disease	Post prandial	Pancreas, liver	360
Dopamine Agonists												
Bromocriptine (Cycloset)	0.1	Neutral	Neutral	Neutral	Moderate	Neutral	Neutral	Neutral	Hypotension	Unknown	Unknown	200

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Adapted from ACE Comprehensive Diabetes Management Algorithm/Lex-Drug Antidiabetic Agents Comparison Tables

[^] Generic available

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<i>Meglitinide Derivatives</i>												
Nateglinide[^] (Starlix)	0.5-1.5	Mild	Slight gain	Neutral	Moderate	Neutral	Neutral	Neutral	Take with meals Hold if meal skipped	Post prandial	Pancreas	170
Repaglinide[^] (Prandin)	0.5-1.5	Mild	Slight gain	Neutral	Moderate	Neutral	Neutral	Neutral	Take with meals Hold if meal skipped	Post prandial	Pancreas	300
<i>Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors</i>												
<u>Canagliflozin</u> (<u>Invokana</u>)	0.77-1.03	Neutral	Loss	Urogenital inf. Caution if eGFR < 45	Neutral	Neutral	Neutral or? risk	? bone loss	Hypotension Maintain adequate hydration DKA warning	Post prandial	Kidney	375
<u>Dapagliflozin</u> (<u>Farxiga</u>)	0.77-1.03	Neutral	Loss	Urogenital inf. Caution if eGFR < 60	Neutral	Neutral	Neutral or? risk	? bone loss	Hypotension Maintain adequate hydration DKA warning	Post prandial	Kidney	375
<u>Empagliflozin</u> (<u>Jardiance</u>)	0.77-1.03	Neutral	Loss	Urogenital inf. Caution if eGFR < 45	Neutral	Neutral	? Benefit	? bone loss	Hypotension Maintain adequate hydration DKA warning	Post prandial	Kidney	360

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<i>Thiazolidinediones (TZDs)</i>												
Pioglitazone[^] (Actos)	0.5-1.4	Neutral	Gain	Can worsen fluid retention	Neutral	Moderate Monitor	Neutral May reduce stroke risk	Moderate fracture risk	Edema Bladder CA Up to 3 months for full effect	Fasting & Basal	Muscles Body fat	20
Rosiglitazone (Avandia)	0.5-1.4	Neutral	Gain	Can worsen fluid retention	Neutral	Moderate Monitor	Neutral May reduce stroke risk	Moderate fracture risk	Edema Bladder CA Up to 3 months for full effect	Fasting & Basal	Muscles Body fat	200
<i>Sulfonylureas (SU)</i>												
Glimepiride[^] (Amaryl)	1-2	Moderate to severe	Gain	>risk of hypo and fluid retention	Neutral	Slight risk increase	?	Neutral	Preferred SU option	Fasting & Basal	Pancreas	10
Glipizide[^] (Glucotrol Glucotrol XL)	1-2	Moderate to severe	Gain	>risk of hypo and fluid retention	Neutral	Slight risk increase	?	Neutral	Preferred SU option	Fasting & Basal	Pancreas	10
Glyburide[^] (Diabeta, Glynase, Micronase)	1-2	Moderate to severe	Gain	> risk of hypo and fluid retention	Neutral	Slight risk increase	?	Neutral	Avoid use in patients 65+	Fasting & Basal	Pancreas	10

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Bile Acid Sequestrant												
Cosvelam (Welchol)	0.5	Neutral	Neutral	Neutral	Mild	Neutral	Benefit	Neutral	Decrease LDL-C Large size	Post prandial	Intestines	600
Glucagon-Like Peptide Receptor Agonists (GLP-1 RA)												
Albiglutide (Tanzeum)	0.6-1.3	Neutral	Loss	No dose adj Use with Caution	Moderate	Neutral	Neutral	Neutral	Pancreatitis ?thyroid cancer Half-life 5 days: may lose effect by end of week	Fasting, post prandial	Pancreas, liver, intestines	415
Exenatide (Byetta, Bydureon)	0.5-1	Neutral	Loss	Contraindicated Crcl <30	Moderate	Neutral	Neutral	Neutral	Pancreatitis ?thyroid cancer	Fasting, post prandial	Pancreas, liver, intestines	525
Dulaglutide (Trulicity)	0.7-0.9	Neutral	Loss	Neutral	Moderate	May cause first degree AV block and sinus tach or QR prolongation		Neutral	Pancreatitis ?thyroid cancer	Fasting, post prandial	Pancreas, liver, intestines	550
Liraglutide (Victoza)	1	Neutral	Loss	Neutral	Moderate	? benefit	? benefit	Neutral	Pancreatitis ?thyroid cancer	Fasting, post prandial	Pancreas, liver, intestines	650

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