




















# Diabetes Medications

## Oral Medications - Pills










These are some of the pills that are currently available in Canada to treat diabetes. Each medication has benefits and side effects you should be aware of. Your diabetes team will work with you to decide which one(s) will work best for you.

Class of Drug	Drug (Brand Name)	How it Works	What the Pill Looks Like	Medication Instructions	Other Information
<b>Alpha-Glucosidase Inhibitors</b>  ↓A1C by 0.6% Cost: \$\$  <u>Insurance Coverage:</u> Alberta Blue Cross Private Plans	Acarbose (Glucobay)	 Slows carbohydrate absorption		50-100 mg Taken with each meal	<ul style="list-style-type: none"> <li>May cause gas and bloating</li> <li>Must treat low blood sugar with Dex4, milk, or honey</li> <li>Not likely to cause low blood sugars</li> <li>Targets after meal blood sugars</li> </ul>
<b>Di-Peptidyl Peptidase-4 (DPP-4) Inhibitors</b>  ↓A1C by 0.7% Cost: \$\$\$  <u>Insurance Coverage:</u> Alberta Blue Cross - Special Authorization Private Plans	Sitagliptin (Januvia)  Saxagliptin (Onglyza)  Linagliptin (Trajenta)	 Reduces amount of sugar made by the liver   Increases release of insulin		Januvia: 25 - 100 mg Once daily  Onglyza: 2.5 - 5 mg Once daily  Trajenta: 5 mg Once daily	<ul style="list-style-type: none"> <li>May cause stomach discomfort and diarrhea</li> <li>Doses should be lowered or use Trajenta if poor kidney function</li> <li>Not likely to cause low blood sugars</li> <li>Targets after meal blood sugars</li> <li>Available as a combination pill with Metformin</li> </ul>
<b>Sulfonylureas</b>  ↓A1C by 0.8% Cost: \$  <u>Insurance Coverage:</u> Alberta Blue Cross (except Amaryl) Private Plans	Gliclazide (Diamicon)  Diamicon MR (Modified Release)  Glimepiride (Amaryl)  Glyburide (Diabeta)	 Increases release of insulin		Diamicon: 80-160 mg Twice a day  Diamicon MR: 30-120 mg Once daily  Amaryl: 1-8 mg Once daily  Diabeta: 2.5-20 mg Once daily with food	<ul style="list-style-type: none"> <li>May cause weight gain</li> <li>May cause low blood sugars (Highest risk with Diabeta, Lowest risk with Diamicon)</li> <li>Targets after meal blood sugars</li> <li>Rash may occur if allergic to sulfa drugs</li> </ul>

Approximate Monthly Cost at Maximum Dose: \$ = \$5-25 | \$\$ = \$25-75 | \$\$\$ = \$75-125 | \$\$\$\$ = \$200-425 |

Class of Drug	Drug (Brand Name)	How it Works	What the Pill Looks Like	Medication Instructions	Other Information
<b>Meglitinides</b> ↓A1C by 0.7% Cost: \$ <u>Insurance Coverage:</u> Alberta Blue Cross Private Plans	Repaglinide (GlucoNorm)	 Increases release of insulin	0.5 mg  1.0 mg  2.0 mg 	0.5-4 mg Taken with each meal	<ul style="list-style-type: none"> <li>May cause weight gain</li> <li>May cause low blood sugars</li> <li>MUST be taken with food</li> <li>Targets after meal blood sugars</li> </ul>
<b>Biguanides</b> ↓A1C by 1.0-1.5 % Cost: \$ to \$\$ <u>Insurance Coverage:</u> Alberta Blue Cross (except Glumetza) Private Plans	Glucophage (Metformin)  Metformin Extended Release (Glumetza)	 Enhances body's use of insulin   Reduces amount of sugar made by the liver	   	Metformin: 250-2000 mg Taken with food  Glumetza: 1000-2000 mg Take with largest meal	<ul style="list-style-type: none"> <li>May cause diarrhea, nausea and bloating</li> <li>May cause B12 deficiency</li> <li>Not likely to cause low blood sugars</li> <li>Targets fasting blood sugars</li> <li>Should not be taken if impaired kidney or liver function</li> <li>Available in combination with DPP-4s or SGLT-2</li> </ul>
<b>Thiazolidinediones</b> ↓A1C by 0.8 % Cost: \$\$ <u>Insurance Coverage:</u> Alberta Blue Cross – Special Authorization Private Plans	Pioglitazone (Actos)  Rosiglitazone (Avandia)	 Enhances body's use of insulin	  	Actos: 15-45 mg Once daily  Avandia: 2-8 mg Once daily	<ul style="list-style-type: none"> <li>May cause weight gain</li> <li>May cause fluid retention</li> <li>Should not be taken if you have a heart condition</li> <li>Can not be taken if you use insulin</li> <li>Targets fasting blood sugars</li> <li>Not likely to cause low blood sugars</li> </ul>










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Class of Drug	Drug (Brand Name)	How it Works	What the Pill Looks Like	Medication Instructions	Other Information
<b>Sodium Glucose Co-Transporter 2 (SGLT-2) Inhibitors</b>  ↓A1C by 0.7-1.0 % Cost: \$\$\$ <u>Insurance Coverage:</u> Alberta Blue Cross – Special Authorization Private Plans	Canagliflozin (Invokana)	  Increases the amount of sugar removed from the body in the urine	Invokana 100 mg  300 mg 	Invokana: 100-300 mg Once daily	<ul style="list-style-type: none"> <li>• May cause weight loss</li> <li>• May cause UTI/yeast infection, low blood pressure, dehydration</li> <li>• Not likely to cause low blood sugars</li> <li>• Targets both fasting and after meal blood sugars</li> </ul>
	Dapagliflozin (Forxiga)		Forxiga 5 mg  10 mg 	Forxiga: 5-10mg Once daily	
	Empagliflozin (Jardiance)		Jardiance 10 mg  25 mg 	Jardiance: 10 -25mg Once daily	
<b>Weight Loss Agent</b>  ↓A1C by 0.5% Cost: \$\$\$\$ <u>Insurance Coverage:</u> Some Private Plans	Orlistat (Xenical)	  Inhibits fat absorption		120 mg Taken with meals (Skip dose if not eating a meal or if meal does not contain fat)	<ul style="list-style-type: none"> <li>• May cause significant weight loss</li> <li>• May cause diarrhea and other GI side effects</li> <li>• Not likely to cause low blood sugars</li> <li>• Targets after meal blood sugars</li> </ul>

Approximate Monthly Cost at Maximum Dose: \$ = \$5-25 | \$\$ = \$25-75 | \$\$\$ = \$75-125 | \$\$\$\$ = \$200-425 |

## Injectable Medications

These are some of the injectable medications that are currently available in Canada to treat diabetes. Each medication has benefits and side effects you should be aware of. Most of these medications will lead to some weight loss and some have heart-protective benefits if you have a history of heart disease. Your diabetes team will work with you to decide which one will work best for you.

Class of Drug	Drug (Brand Name)	How it Works	What the Pen Looks Like	Medication Instructions	Other Information
<b>Glucagon-Like Protein 1 (GLP-1) Receptor Agonist</b>  <b>↓A1C by 0.8-1.0%</b> <b>Cost: \$\$\$\$</b>  <u>Insurance Coverage:</u> <b>Some Private Plans</b>	Exenatide (Byetta)			Byetta: 5-10 mcg Twice daily	<ul style="list-style-type: none"> <li>• May cause significant weight loss</li> <li>• May cause nausea, diarrhea, and other GI side effects</li> <li>• Not likely to cause low blood sugars</li> <li>• Targets both fasting and after meal blood sugars</li> </ul>
	Exenatide XR (Bydureon)	Stimulates release of insulin after meals		Bydureon: 2mg Once weekly	
	Liraglutide (Victoza or Saxenda)			Victoza: 0.6-1.8 mg Once daily (For Diabetes)	
	Lixisenatide (Adlyxine)	Slows digestion of carbohydrate		Saxenda: 0.6-3.0 mg Once daily (For Weight Loss)	
	Semaglutide (Ozempic)			Adlyxine: 10-20 mcg Once daily	
	Dulaglutide (Trulicity)	Reduces appetite		Ozempic: 0.25-1.0mg Once weekly  Trulicity: 0.75-1.5 mg Once weekly	

Approximate Monthly Cost at Maximum Dose: \$ = \$5-25 | \$\$ = \$25-75 | \$\$\$ = \$75-125 | \$\$\$\$ = \$200-425 |

## Insulin

Over time the pancreas may lose its ability to produce insulin and regular insulin injections will often be needed to achieve target blood sugar levels. Rapid and short acting insulins are taken with meals, intermediate or long acting insulins are taken once or twice daily. Your diabetes team will work with you to decide which one will work best for you.

Type	Brand Name	Delivery Methods	Onset	Peak Action	Duration
<b>Ultra Rapid-Acting (clear)</b>  <b>Insurance Coverage:</b> <b>Private Plans</b>	Fiasp (insulin aspart)	Syringe Insulin Pen Pre-filled Pen	2.5 minutes	1-2 hours	3-5 hours
<b>Rapid-Acting (clear)</b>  <b>Insurance Coverage:</b> <b>Alberta Blue Cross</b> <b>Private Plans</b>	Humalog (insulin lispro) Humalog U200 (concentrated lispro) NovoRapid (insulin aspart) Apidra (insulin glulisine)	Syringe Insulin Pen Pre-filled Pen  <i>U200 is only available as a pre-filled pen</i>	10-15 minutes	1-2 hours	3-5 hours
<b>Short-Acting (clear)</b>  <b>Insurance Coverage:</b> <b>Alberta Blue Cross</b> <b>Private Plans</b>	Humulin-R Novolin Toronto (Regular)	Syringe Insulin Pen Pre-filled Pen	30 minutes	2-3 hours	6.5 hours
<b>Intermediate-Acting (cloudy)</b>  <b>Insurance Coverage:</b> <b>Alberta Blue Cross</b> <b>Private Plans</b>	Humulin N Novolin NPH	Syringe Insulin Pen Pre-filled Pen	1-3 hours	5-8 hours	Up to 18 hours
<b>Long-Acting (clear)</b>  <b>Insurance Coverage:</b> <b>Alberta Blue Cross</b> <b>(except Toujeo/Tresiba)</b> <b>Private Plans</b>	Levemir (insulin detemir) Lantus (insulin glargine) Basaglar (insulin glargine)  Toujeo (concentrated glargine)  Tresiba (Degludec)	Syringe Insulin Pen Pre-filled Pen  <i>Toujeo and Tresiba are only available as a pre-filled pen</i>	90 minutes   6 hours  30-90 minutes	No peak   No peak  No peak	Up to 24 hours   24-36 hours  >42 hours

Premixed insulins are available (Humulin 30/70, Novolin ge 30/70, 40/60, 50/50, NovoMix30, Humalog Mix 25 or Mix 50) which is a mixture of rapid or short acting insulin with intermediate insulin. These are typically used twice daily with the two largest meals of the day. The onset, peak action and duration will vary depending on the type of premixed insulin. All pre-mixed insulin is covered by Alberta Blue Cross except NovoMix 30.

All insulin pens contain 300u per pen except for Toujeo (450u per pen) and Tresiba U200 (600u per pen). The cost of insulin depends on the dose you need.