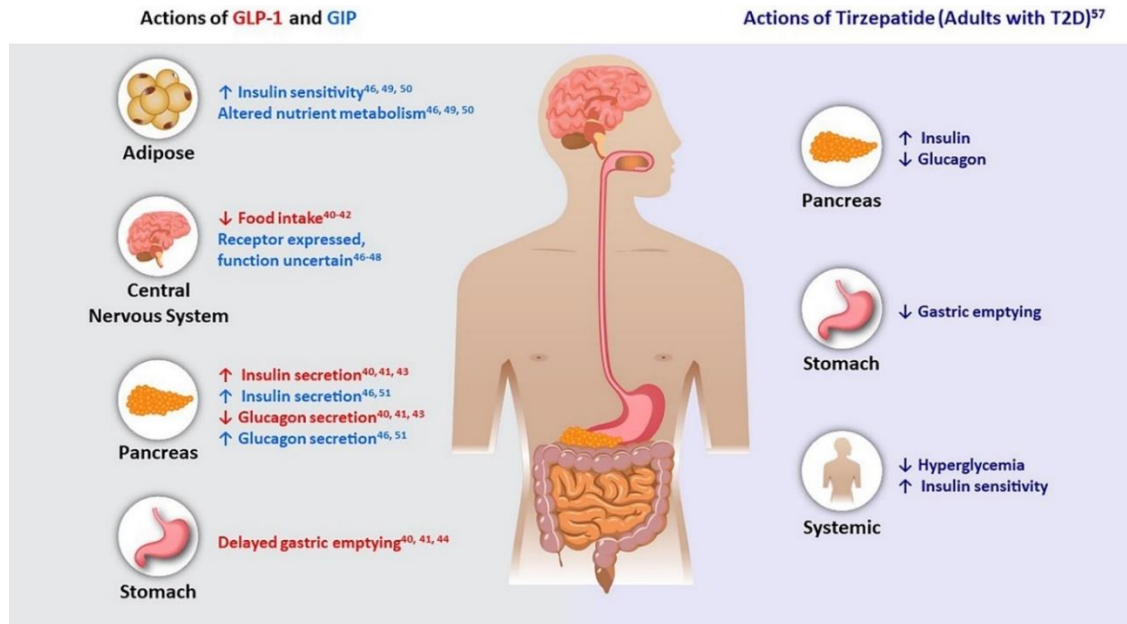




Mounjaro (Tirzepatide)

How does it work?



Indication: Mounjaro® (tirzepatide) is approved by Health Canada for management of Type 2 diabetes in combination with metformin or as monotherapy. Tirzepatide has been approved by the FDA in the United States for weight management as the product Zepbound®, but this is not an official Canadian indication.

Dosing: 2.5mg subcutaneously once weekly x 4 weeks then 5mg subcutaneously once weekly
Dose can be titrated to achieve glycemic targets by 2.5mg every 4 weeks to a **maximum 15mg/ week**

What if you miss a dose? Missed doses should be taken within 4 days then resume their regular schedule dose. If greater than 4 days, the dose should be skipped to maintain regular dosing day.

Cost: Approximately \$400/28 days. Not covered by ODB and some private plans.

How to manage other diabetic medications when starting tirzepatide?

Insulin: reduction of 20% of the insulin dose if A1C is ≤8%

DPP-4 inhibitor (sitagliptin, linagliptin): discontinue as unlikely to add additional benefit

GLP-1 agonist: discontinue – **There are currently no evidence-based guidelines for switching between GLP-1 agonists. A conservative approach would be to discontinue the current GLP-1 agonist and 7 days later start tirzepatide 2.5mg once weekly, titrate accordingly**

SGLT-2 inhibitor (dapagliflozin, empagliflozin, canagliflozin): continue

Gliclazide: reduce dose by 50% to avoid hypoglycemia

How is tirzepatide supplied?

In Canada it is available in a **vial only** and will not be available in a prefilled pen for the foreseeable future. It will require a patient, using a 1ml tuberculin or U-100 insulin syringe with a 28-31G needle more than 2.1mm to withdrawal 0.5ml from the vial. [Click here for detailed injection instructions.](#) Consider ordering supplies on the prescription to aid with insurance coverage.

Storage: Should be kept in the fridge (2-8 C) until expiry date OR stable at room temperature for 21 days stored in a dark place

Who should not use Tirzepatide?

- Active gallbladder disease
- Active acute kidney injury
- History of pancreatitis
- Family history of medullary thyroid cancer or MEN 2
- Pregnant /breastfeeding
- Pediatric patients (not studied)

Considerations in patients who have childbearing potential:

Tirzepatide can **REDUCE the effectiveness of combined oral contraceptives** (COCs). Patients should use add a barrier method or switch to non oral contraceptive option. Tirzepatide should be discontinued at least 1 month prior to planned pregnancy.

Drug interactions: Tirzepatide can delay gastric emptying which can change absorption of medications. Narrow therapeutic medications should be monitored (i.e. warfarin) when initiated.

Benefits:

SURPASS-1 (tirzepatide vs. placebo)³

	5mg	10mg	15mg	Placebo
Change in A1C from baseline	-1.87%	-1.89%	-2.07%	+0.04%
Change in Weight from baseline	-7kg	-7.8kg	-9.5kg	-0.7kg

SURPASS-2 (tirzepatide vs. semaglutide 1mg)⁴

	5mg	10mg	15mg	Semaglutide 1mg
Change in A1C from baseline	-2.01%	-2.24%	-2.30%	-1.86%
Change in Weight from baseline	-7.6kg	-9.3kg	-11.2kg	-5.7kg

The [SURPASS CVOT](#) (effect of tirzepatide vs dulaglutide on major adverse cardiovascular events) is not expected to be completed until 2024. Currently there is not data on the effect of tirzepatide on MACE.

What are the common side effects?

The side effects are **dose dependent** and are **more common than GLP-1 agonists**. GI upset (Nausea, diarrhea, vomiting – this tends to improve with time), dyspepsia, increased heart rate (1-2bpm). Hypoglycemia occurred in 6-8% of the patients.

What are the less common but serious side effects?

Pancreatitis <1%, cholelithiasis 1%, allergic reaction (1.9-4.5%), diabetic retinopathy (greatest risk in patients with history DR)

Monitoring:

Baseline: eye exam, A1C, weight

Patient's should self-monitor for signs and symptoms of hypoglycemia ([Handout](#)), other adverse effects

3 months: A1C, weight, tolerability, retinopathy progression if history of retinopathy

Handouts and Links:

[How to draw up and inject Mounjaro®](#)

[Mounjaro® Patient Education Brochure](#)

[Injection site and rotation](#)

[Video demonstrating use of Mounjaro®](#)

[mymounjaro® Support Program – mymounjaro.ca](#)

- Patients can enroll in the program to receive a support card that reduces the cost of the product
- They will be also offered the ability to book injection training through this program

References:

1. Mounjaro [Product Monograph including Patient Medication Information]. Toronto, ON: Eli Lilly Canada Inc. <https://pi.lilly.com/ca/mounjaro-ca-pm.pdf>. Published Nov 23, 2022. Accessed Aug 14, 2023.
2. Tirzepatide for the treatment of adults with type 2 diabetes: An endocrine perspective. *Diabetes Obes Metab*. 2023; 25(1): 3-17.
3. Efficacy and safety of a novel dual GIP and GLP-1 receptor agonist tirzepatide in patients with type 2 diabetes (SURPASS-1): a double-blind, randomised, phase 3 trial. *Lancet*. 2021 Jul 10;398(10295):143-155
4. Tirzepatide versus Semaglutide Once Weekly in Patients with Type 2 Diabetes *N Engl J Med* 2021; 385:503-51