

# GLP-1 / GIP Medications

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## What Are These Medications?

GLP-1 and GLP-1/GIP agonists are no longer just “diabetes drugs” — they are **multisystem cardiometabolic therapies** with expanding indications spanning **obesity, CV disease, kidney disease, liver disease, HFpEF, and possibly addiction medicine**.

These medications work like natural hormones released by your gut after eating. They help control blood sugar, reduce appetite, and support weight loss by acting on the stomach, pancreas, and brain.

Some medications (tirzepatide) act on **two hormone pathways (GLP-1 and GIP)** and may produce greater weight and metabolic benefits.

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## Medication Names

GLP-1 / GIP medications include:

- **Semaglutide:** Ozempic®, Wegovy®, Rybelsus® (oral formulation)
  - **Tirzepatide:** Mounjaro®, Zepbound®
  - **Liraglutide:** Victoza®, Saxenda®
  - **Dulaglutide:** Trulicity®
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## What Conditions Are Treated?

These medications are used for:

- Type 2 diabetes
- Chronic weight management
- Obesity-related obstructive sleep apnea (OSA)
- Fatty liver disease (MASLD/NAFLD)
- Insulin resistance / metabolic syndrome
- Cardiovascular risk reduction
- **Important:** For OSA, these medications help by reducing weight and metabolic stress. They do not replace CPAP or other prescribed sleep apnea treatments.

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## How Do They Work?

- Increase insulin release only when blood sugar is high
- Reduce glucagon (a hormone that raises blood sugar)
- Slow stomach emptying so you feel full longer
- Reduce hunger and food cravings

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## Benefits You May See

- Lower blood sugar (A1C reduction ~1–2% or more)
- Weight loss (often **10–25% of body weight**, depending on medication and dose)
- Low risk of low blood sugar when used alone
- Possible improvement in blood pressure, cholesterol, and sleep apnea severity

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## Common Side Effects

Most side effects are mild to moderate and improve with time:

- Nausea
- Feeling overly full
- Vomiting
- Diarrhea or constipation
- Decreased appetite

Side effects are usually worse during dose increases.

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## Less Common but Serious Side Effects (Rare)

- Gallstones (especially with rapid weight loss)
  - Pancreatitis (severe abdominal pain that may go to the back)
  - Thyroid tumors seen in animals (not proven in humans)
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## Who Should Not Use These Medications

- History of medullary thyroid cancer or Multiple Endocrine Neoplasia type 2
  - Pregnancy or breastfeeding
  - Prior severe pancreatitis (in some cases)
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## How the Medication Is Taken

- **Injection:** once-weekly (Ozempic®, Wegovy®, Mounjaro®, Zepbound®, Victoza®, Saxenda®, Trulicity®)
  - **Oral:** once-daily (Rybelsus®)
  - Dose is started low and increased slowly to reduce side effects
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## Tips to Reduce Side Effects

- Eat smaller meals
  - Avoid greasy or high-fat foods
  - Stop eating when you feel full
  - Drink plenty of fluids
  - Avoid lying down right after meals
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## Contact Your Physician if:

- Ongoing vomiting or inability to keep fluids down
  - Severe or worsening abdominal pain
  - Symptoms of dehydration (dizziness, dark urine)
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## Key Takeaway

GLP-1/GIP medications are **effective, evidence-based treatments** for diabetes, obesity, and obesity-related conditions such as **obstructive sleep apnea**. Best results occur when combined with nutrition, physical activity, and regular medical follow-up.