

GLP-1 (Glucagon-like Peptide-1) Receptor Agonists

GLP-1 and GIP (gastric inhibitory peptide) are both hormones found in the gut that increase insulin secretion when you eat. They are also called “incretins.” This handout is about medicines that affect these hormones.

Reasons to Use GLP-1 Receptor Agonists

There are a few reasons that these medicines are prescribed.



Diabetes: These medicines are often used to manage type 2 diabetes and to lower blood sugars.



Weight: These medicines may cause weight loss.



Heart health: Some of these medicines have been shown to lower the risk of heart attack, stroke, and death for those with diabetes and heart disease.

How These Medicines Work

- Increase insulin released from the pancreas when eating
- Slow down stomach emptying
- Lessen glucagon release which lowers the amount of glucose the liver makes
- Make you feel full sooner

Names of GLP-1 Receptor Agonists

Examples include:

- Exenatide (Byetta[®], Bydureon BCise[®])
- Liraglutide (Victoza[®], Saxenda[®])
- Dulaglutide (Trulicity[®])
- Semaglutide (Ozempic[®], Rybelsus[®], Wegovy[®])

Dual Incretin Agonist (GLP-1 Receptor Agonist/GIP)

- Tirzepatide (Mounjaro[®], Zepbound[®])

How to Take

Most of these medicines are injected under the skin. Some are taken daily, and others are taken weekly. Use as directed.

Rybelsus[®] is a pill and taken on an empty stomach when you first wake up. Take with no more than 4 ounces of water. Wait 30 minutes before eating, drinking, or taking other medicines, vitamins, or supplements.

Side Effects

Let your care team know if you have any of these problems.

- **Nausea, vomiting, diarrhea, and/or constipation.** This is more likely when you first start taking this medicine. Most people start at a low dose and slowly increase the dose. This helps your body get used to it and can lessen these side effects. See the next page for some tips to reduce side effects.
- **Blockage in the intestines.** Be sure to report any warning signs such as nausea, vomiting, constipation, belly pain, or bloating that does not go away within a few days.
- **Dehydration.** These medicines may reduce thirst. If you are less thirsty, you may be less likely to get enough fluids to stay well hydrated.
- **Injection site reactions.** Be sure to report any redness, swelling, pain, or blisters at the injection site.
- **Low blood sugar:** This is uncommon. Sometimes doses of insulin or other medicines are lowered to avoid low blood sugar.

Tips to Reduce Side Effects

In the first few weeks of starting the medicine or taking a higher dose, you may be more likely to have side effects like nausea. The signal of "fullness" does not reach your brain until you are beyond full. Consider eating until you are about half full. Do something else for 20-30 minutes before deciding if you are still hungry. Other tips:

- Eat slowly and only if really hungry.
- Eat smaller portions.
- Stay sitting up after a meal. Avoid eating before bedtime.
- Eat low-fat foods.
- Avoid sweets, spicy or canned food.
- Use a food diary to track foods/drinks that cause the least/most problems for you.

Missed Doses or Changes with Medicine

- If you take your GLP-1 medicine weekly and miss 2 or more doses, call your provider for direction before restarting.
- If you change from one GLP-1 receptor agonist to another, be sure to get new instructions about how to take the medicine. The injection devices are often different.

Reasons Not to Take GLP-1 Receptor Agonists

These medicines should not be used for:

- People with a personal or family history of medullary thyroid cancer
- People with a condition called Multiple Endocrine Neoplasia syndrome type 2 (MEN 2)

Procedures/Surgery

If you plan to have a procedure or surgery, ask if and when you should stop taking your GLP-1 medicine. People are often asked to stop taking their once-weekly GLP-1 medicines 1 week before the procedure/surgery date.

Other Conditions to Share with Provider

Let your provider know if you have had any of the problems listed below.

- Pancreatitis
- Gallbladder problems
- Gastroparesis
- Other stomach problems
- Retinopathy or changes in your vision