

Liraglutide (Saxenda)¹⁻²

Mechanism of action: GLP 1 analogue which is an injectable physiological regulator of appetite and energy intake via GLP -1 receptors in the periphery and brain and is thought to effect activity in the hypothalamus and other brain regions that regulate appetite as well as direct effects on the gut to reduce food intake via vagal signaling and delayed gastric emptying, causing early satiety, increased satiety, reduced hunger and energy intake.

Dose: recommended dose is 3 mg/day, at any time during the day without regard to meals. Requires titration schedule.

- Start with 0.6 mg daily x one week and increase weekly by 0.6 mg until max dose of 3 mg is reached.
- Dispense 5 pens for starting and maintaining 3.0 mg dose daily.
- Side effects may be experienced immediately.

Titration Schedule:

Liraglutide Pen	Daily Dose
Week 1	0.6 mg SQ
Week 2	1.2 mg SQ
Week 3	1.8 mg SQ
Week 4	2.4 mg SQ
Week 5	3.0 mg SQ

Indications: FDA approved in the 2014 for the long-term treatment of obesity in patients with and without diabetes.

Controlled substance: not a controlled substance

Side effects: headache, dizziness, nausea, vomiting, constipation, diarrhea, increased heart rate, dyspepsia, hypoglycemia

Contraindications: Pregnancy (category X, ensure contraception practices in women of childbearing years), breastfeeding, history pancreatitis, **Black box warning** for personal or family history thyroid medullary cancer or neoplasia syndrome type 2.

Clinical Pearls:

- May have beneficial effects on triglycerides, blood pressure and glucose levels
- Monitor blood glucose levels in patients with diabetes prescribed insulin secretagogues
- May increase lipase levels
- Side effects (nausea, vomiting) may be controlled by slowing the upward titration of the drug
- Patients may do well on lower doses of the medication
- May consider patient a non-responder if <4% weight loss at 3 months

Please refer to the official prescribing information for each product for approved indications, contraindications, and warnings. Clinicians should appraise the information presented critically and are encouraged to consult appropriate resources for any updated information.

¹ Garvey WT, Mechanick JJ, Brett EM, et al. American Association of Clinical Endocrinologists and American College of Endocrinology Comprehensive Clinical Practice Guidelines for Medical Care of Patients with Obesity. *Endocr Pract.* 2016;22 Suppl 3:1-203.

² <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=3946d389-0926-4f77-a708-0acb8153b143>