

What semaglutide is

A week-long copy of the gut hormone GLP-1, which ends meals sooner, slows the stomach, and raises insulin only when glucose is high. The drug in Ozempic, Rybelsus, and Wegovy, and since December 2025 the Wegovy pill.

APPROVED	Diabetes 2017; weight 2021; heart risk 2020 and 2024; kidney 2025; liver 2025; pill for weight 2025
MAKER	Novo Nordisk. Generics in Canada from 2026; none in the US until the 2030s
PRICE	About \$349 a month cash for the pen, \$149 to \$299 for the pill; research vials \$25 to \$70
VIALS	Compounded copies lawful only during the 2022–2025 shortage; research vials are unapproved drugs

THE EVIDENCE IS FOR THE PEN AND THE PILL

Every number here comes from the approved products. A vial shares the name and none of what the trials measured about purity, dose, or stability.

This pamphlet is for adults taking or being offered semaglutide in any form. It is a summary of the label and the trials, not medical advice.

Before the first dose, ask

- ☐ Brand pen or pill, compounded vial, or research vial? If compounded, what justifies it now?
- ☐ Semaglutide base, or a sodium or acetate salt? Show me the certificate.
- ☐ What is my starting dose in units on this vial?
- ☐ Medullary thyroid cancer or MEN 2 in the family? Pancreatitis?
- ☐ On insulin or a sulfonylurea? Pregnant or planning to be?
- ☐ What is the plan for the plateau, and for the day I stop?

SOURCES

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- Wegovy and Ozempic (semaglutide) prescribing information, 2025 revisions; Wegovy tablets, 2025. Novo Nordisk.
- U.S. Food and Drug Administration. Semaglutide shortage resolved; compounding wind-down deadlines. February 2025.
- U.S. Food and Drug Administration. FDA's concerns with unapproved GLP-1 drugs (salt forms, dosing errors); 2026 warning letters over compounded GLP-1 products.
- U.S. Food and Drug Administration. Proposed 503B bulks list excluding semaglutide, tirzepatide, and liraglutide. *Federal Register*, May 1, 2026.
- Representative semaglutide research-vial listings and compounded-vial labels, September 2026; NovoCare cash pricing, 2026.
- Health Canada. Canada approves first generic semaglutide for weight loss. June 29, 2026.

This guide is an educational summary of published sources and is not medical advice. Trial results describe Ozempic, Wegovy, and Rybelsus, the approved products; compounded copies and research-chemical vials have not been studied and, as of the edition date, ordinary compounding of semaglutide is no longer lawful in the United States. The prescribing information and the prescriber override anything here. Status statements are current as of the edition date.

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Semaglutide

A guide to the drug in Ozempic and Wegovy: the most-studied peptide in the world, a pill since 2025, a generic in Canada since June, and a vial market the FDA spent 2026 shutting down

Semaglutide is the GLP-1 that made the category. It has been an approved drug since 2017, first for diabetes and then for weight, heart disease, kidney disease, and liver disease, on trials that enrolled more people than every other peptide in this series combined. It is the one weight-loss injection with a daily pill, the first with a generic in a G7 country, and the one whose compounded copies the FDA has spent the last eighteen months removing from the market. This guide covers what it does, what the big trials showed, how it is dosed on the label, and what changes when the same molecule arrives as a compounded vial or a research-chemical powder.

How it works, and what the trials showed

−14.9%¹

Body weight at 68 weeks on Wegovy 2.4 mg, about 1,960 adults; placebo 2.4%

−20%³

Heart attacks, strokes, and cardiovascular deaths over 3 years in 17,600 adults with obesity and heart disease

~2/3⁵

Of lost weight regained within a year of stopping

THE TRIALS

TRIAL	RESULT
STEP 2, diabetes	About 10%; diabetes blunts the effect
FLOW, kidney disease	24% less progression and death
OASIS 4, 25 mg pill	About 17% at 64 weeks

Tirzepatide loses more weight. Semaglutide's edge is the outcomes: nothing else in the class has shown fewer heart attacks without diabetes.

A TREATMENT, NOT A CURE

The effect is on appetite. Stop the drug and the appetite returns, and with it most of the weight and the blood pressure and lipid gains.

Dosing, and what changes in a vial

LABEL ESCALATION, EXPRESSED FOR A 10 MG VIAL + 2 ML (5 MG/ML). WEEKLY.

WEEKS	DOSE	UNITS	PER 4 WK
1–4	0.25 mg	5	1 mg
5–8	0.5 mg	10	2 mg
9–12	1 mg	20	4 mg
13–16	1.7 mg	34	6.8 mg
17 on	2.4 mg	48	9.6 mg (1 vial)

The pen needs no arithmetic. Each step held at least 4 weeks; missed dose within 5 days or skipped, never doubled.

SHORTAGE ERA	Compounded copies lawful 2022 to spring 2025; the FDA declared the shortage over February 2025
2026	More than fifty FDA warning letters to compounders and telehealth firms; the largest exited; May proposal to bar bulk compounding permanently
SALT FORMS	Semaglutide sodium and acetate are not the approved ingredient and were never tested in people; a vial label does not say which is inside

THE DOCUMENTED HARM IS ARITHMETIC

Patients drawing ten times the intended dose from vials labeled in mg/mL, reported to poison centers through 2025. The same 0.25 mg is 5 units in one vial and 10 in another.

Reading a vial, and staying safe

UNITS = (MG ÷ MG/ML) × 100

10 mg with 2 mL is 5 mg/mL: 0.25 mg is 5 units, 2.4 mg is 48. A pharmacy vial at 2.5 mg/mL puts the same starting dose at 10 units. The label on your vial governs.

10 MG VIAL, ILLUSTRATION ONLY

WATER	0.25 MG	1 MG	2.4 MG
1 mL	2.5 units	10 units	24 units
2 mL	5 units	20 units	48 units
4 mL	10 units	40 units	96 units

- Common: nausea, vomiting, diarrhea, constipation, worst after each step; they fade.
- Boxed warning: thyroid C-cell tumors in rodents; not with a history of medullary thyroid cancer or MEN 2.
- Pancreatitis, gallstones, dehydration; low blood sugar only with insulin or sulfonylureas.
- Slowed stomach: blockage warning (2023), anesthesia aspiration warning (2025). Tell the anesthesiologist.
- Not in pregnancy; stop two months before trying. Protect lean mass with protein and training.

THE LAWFUL VERSIONS TODAY

Wegovy and Ozempic pens, the Wegovy and Rybelsus tablets, Zepbound for more loss, CagriSema once approved. All with a label, a fixed dose, and a maker answerable for the contents.