



Lttl

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MICRODOSE GLP-1

A Lttl goes a long way.

What the evidence says about low-dose semaglutide and tirzepatide – by injection or by mouth – and where the claims outrun the data.

3

formats: two weekly
injections, one daily oral

0.25 mg

standard weekly starting
dose of semaglutide

2

medicines: semaglutide and
tirzepatide

Same medicines. Smaller steps.

Microdosing means taking a GLP-1 medicine at or below the usual starting dose and adjusting it slowly, if at all. Lttl offers three formats: weekly semaglutide injection, weekly tirzepatide injection, and daily oral semaglutide.

Large trials tested full doses. They also show that low doses still work, just less, and cause fewer stomach side effects. No large trial has tested microdosing as its own plan. Compounded versions are not FDA-approved.

KEY FINDINGS

- 1 Dose drives results.** In trials, weight loss rose with dose for both medicines.
- 2 Low doses still act.** The lowest semaglutide dose in one trial cut weight about 6% in a year.
- 3 Gentler on the stomach.** Nausea and other GI effects were less common at lower doses.
- 4 Two mechanisms.** Semaglutide acts on GLP-1. Tirzepatide acts on GLP-1 and GIP.
- 5 Oral is harder to absorb.** The gut takes up only a small share, so daily timing rules matter.
- 6 Open questions.** Long-term outcomes of microdose plans have not been studied.

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01 *Copies of the body's fullness signals.*

After a meal, the gut releases hormones called **GLP-1** and **GIP**. They tell the brain you are full and help control blood sugar. The body's own versions last minutes. These medicines last about a week.

GLP-1

Semaglutide

Acts on one receptor, GLP-1. Given as a weekly injection or a daily tablet. Lasts about one week in the body.

GIP + GLP-1

Tirzepatide

Acts on two receptors, GIP and GLP-1. Given as a weekly injection. Lasts about five days in the body.

WHY START SMALL

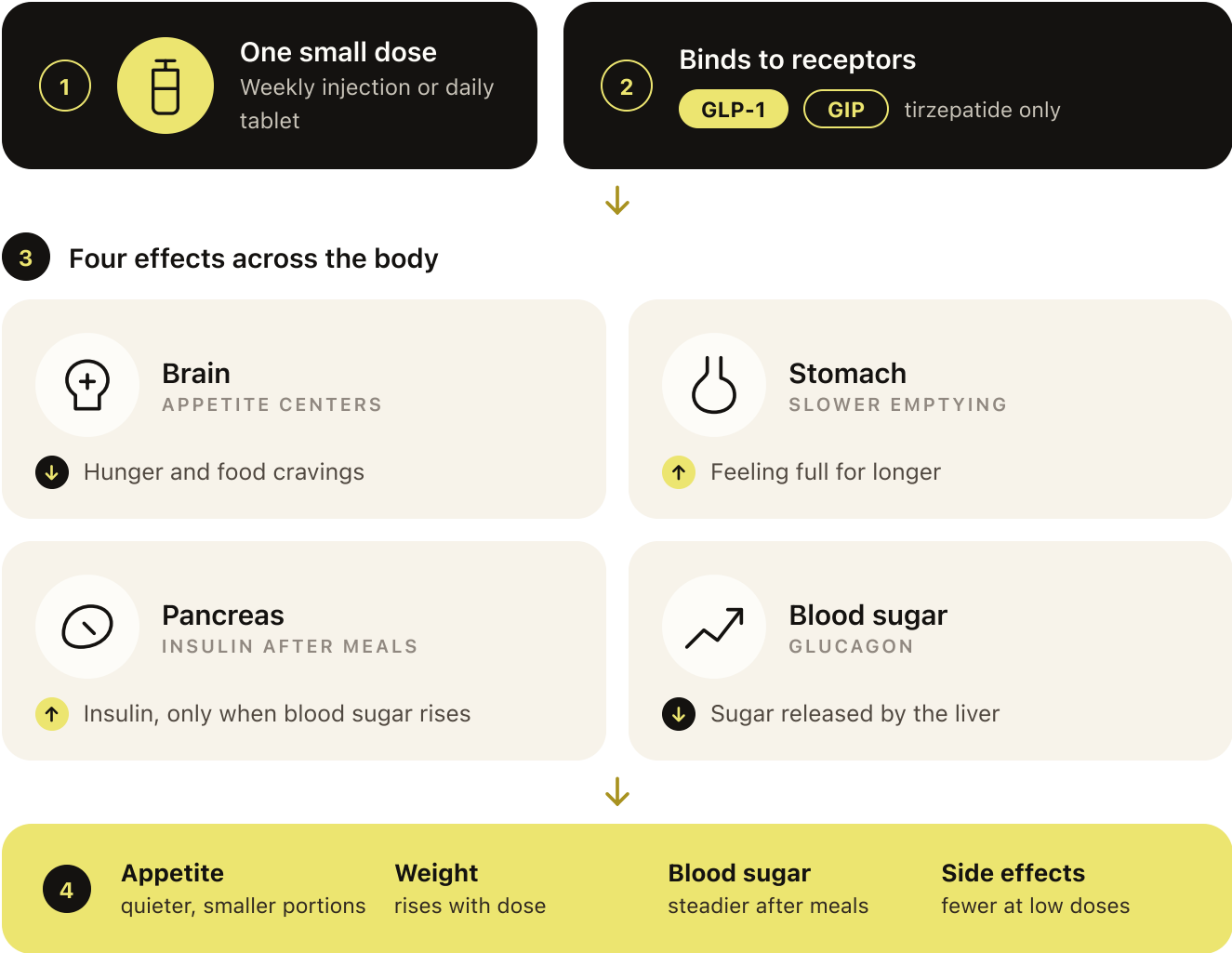
Both medicines start low and step up because the stomach needs time to adjust. Nausea is most common in the weeks after each increase.

A microdose plan stays near that starting range. The trade is a smaller, slower effect for fewer side effects. It may suit people with modest goals, those who had trouble with full doses, or those maintaining results.

"The right dose is the lowest one that does the job for you."

The Lttl care team

From one small dose to steadier appetite.



Simplified illustration. Effects vary by person and by dose. Benefits of compounded microdose plans are not FDA-established.

02 *Less medicine, less effect. Not zero.*

No large trial has tested a microdose plan. The best clues come from dose-finding trials, which compared several doses side by side.

Semaglutide · daily injection · 52 weeks

Average weight change, %



O'Neil 2018 phase 2 trial, 957 adults with obesity. The lowest dose equals about 0.35 mg a week. The 0.3 mg arm is not shown.

Tirzepatide · weekly injection · 72 weeks

Average weight change, %



SURMOUNT-1, 2,539 adults with obesity or overweight. Doses below 5 mg were used only to start and were not tested on their own.

Bars scaled within each chart. Results describe full trial populations with diet and activity counseling, not microdose plans.

The trials behind the numbers.

STUDY	WHO AND WHAT	WHAT WAS FOUND
O'Neil 2018	957 adults with obesity; five daily semaglutide doses for 52 weeks	Weight loss of 6.0% to 13.8%, rising with dose; placebo 2.3%
STEP 1 · 2021	1,961 adults; weekly semaglutide 2.4 mg for 68 weeks	14.9% average weight loss vs. 2.4% with placebo
SURMOUNT-1 · 2022	2,539 adults; weekly tirzepatide 5, 10, or 15 mg for 72 weeks	15.0% to 20.9% weight loss; placebo 3.1%
PIONEER 1 · 2019	703 adults with type 2 diabetes; oral semaglutide 3, 7, or 14 mg daily	Blood sugar improved at all doses; weight loss about 1.5 to 3.7 kg at 26 weeks
OASIS 1 · 2023	667 adults with obesity; oral semaglutide 50 mg daily for 68 weeks	15.1% weight loss vs. 2.4% with placebo

WHAT THIS SUGGESTS

Lower doses produce real but smaller weight loss, and side effects follow the same pattern. That is the reasoning behind microdosing: accept a slower pace in exchange for comfort.

WHAT IT DOES NOT PROVE

These trials tested fixed doses in specific groups. Microdose schedules, compounded products, and non-weight claims such as energy or longevity have **not** been tested in large trials.

03

Weekly shot or daily tablet.

All three aim for the same thing: a low, steady level of medicine. They differ in how often you take them and how reliably the dose reaches your blood.

	MICRODOSE SEMAGLUTIDE	MICRODOSE TIRZEPATIDE	ORAL SEMAGLUTIDE
Receptors	GLP-1	GIP and GLP-1	GLP-1
Route	Under the skin, pre-mixed vial	Under the skin, pre-mixed vial	By mouth
How often	Once a week	Once a week	Once a day
Standard start	0.25 mg a week	2.5 mg a week	3 mg a day (branded tablet)
Microdose	At or below the start, as prescribed	At or below the start, as prescribed	As prescribed
Absorption	Reliable	Reliable	Low and variable
Good fit for	A gentle, well-studied start	A stronger effect per dose	People who prefer no needles

ABOUT THE ORAL FORM

The gut is a tough gate.

Semaglutide is a protein-like molecule the stomach breaks down. The branded tablet uses an absorption helper, and even so, well under 1% of each dose reaches the blood.

Take it on an **empty stomach** with a small sip of water, then wait **30 minutes** before food, drinks, or other medicines, unless your prescription says otherwise.

04 *Lower dose. Same cautions.*

Side effects are usually milder at low doses, but a small dose is still the same medicine. Every warning on the full-dose label applies.

Common

Nausea, fullness, constipation, or diarrhea, most often in the first weeks.

Less common

Heartburn, burping, tiredness, or redness where you inject.

What helps

Smaller meals, stopping when full, fluids, and less greasy food.

NOT FOR YOU, OR TALK TO YOUR CLINICIAN FIRST, IF YOU HAVE

Thyroid cancer history. Do not use with a personal or family history of medullary thyroid cancer or MEN 2.

Gallbladder disease. Rapid weight loss can raise the risk of gallstones.

Birth control pills. Tirzepatide can make them less reliable; use a backup method after starting and each dose change.

Pancreatitis. Stop and seek care for severe belly pain that spreads to the back.

Diabetes medicines. With insulin or sulfonylureas, low blood sugar is more likely.

Thyroid medicine. Oral semaglutide can raise levothyroxine levels; your clinician may check them.



Pregnancy and breastfeeding. These medicines are not for use during pregnancy. Stop semaglutide at least 2 months before a planned pregnancy, and tell your clinician if you are pregnant, planning to be, or breastfeeding.

05 *Approved at set doses. Compounded to fit.*

Branded pens and tablets come in fixed strengths. Compounding pharmacies prepare medicine for individual patients, which allows doses below the smallest branded strength. Compounded versions are not FDA-approved.

	BRANDED	COMPOUNDED MICRODOSE (Lttl)
Examples	Wegovy, Ozempic, Rybelsus (semaglutide); Zepbound, Mounjaro (tirzepatide)	Semaglutide or tirzepatide prepared for you
FDA status	Approved for weight management or type 2 diabetes	Not FDA-approved; not reviewed before use
Made by	Licensed drug manufacturers	A state-licensed or FDA-registered compounding pharmacy
Format	Prefilled pens or tablets at fixed strengths	Pre-mixed liquid vials, or oral form
Dose steps	Set by the label	Small steps set by your clinician
Price	Varies with insurance	From \$109/mo, same price every dose

QUESTIONS TO ASK ANY PROVIDER

- Which pharmacy prepares it, and is it licensed or FDA-registered?
- What is the concentration, and how much is my dose?
- How should I store it, and what is the beyond-use date?
- Who can I reach with questions, and when?

THE DOSING DETAIL THAT MATTERS

Microdoses can be just a few units on the syringe, and vial strengths differ between pharmacies. Always confirm your dose in milligrams **and** the exact syringe marking with your care team, especially with each new vial.

06 *Slow and steady, by design.*

Expect gradual change. Microdose results build over months, and they work best alongside balanced meals, protein, strength training, and good sleep.

WEEKS 1-2

Settling in

Mild nausea or fullness is possible. Many feel little.

WEEKS 2-8

Quieter appetite

Smaller portions and fewer cravings often show up first.

MONTHS 2-6

Check in

Review progress. Your clinician may hold or adjust the dose.

ONGOING

Maintain

Stopping can bring appetite and weight back; plan it together.

HOW LTTL SUPPORTS TREATMENT

Board-certified clinicians

Licensed providers review your history before prescribing.

Same price, every dose

Microdose plans from \$109/mo. No contracts, FSA/HSA eligible.

Unlimited 24/7 support

Reach the care team any time at (888) 847-7806 📞 or hello@lttl.com.



Where the findings come from.

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IMPORTANT INFORMATION

This whitepaper is educational and does not replace medical advice, diagnosis, or treatment. Study results describe specific populations under study conditions and may not reflect individual outcomes. No large trial has tested microdose plans or compounded versions. Compounded medications are not FDA-approved. Semaglutide and tirzepatide carry a boxed warning about thyroid C-cell tumors. These medicines are not right for everyone; discuss your full health history and all medications and supplements with a licensed clinician before starting.

Questions? Talk to our care team.

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