optml

FIELD GUIDE NO. 01

FOR GLP-1 PATIENTS · FIRST 90 DAYS & BEYOND

Side Effects.

The field manual for surviving the rough weeks on a GLP-1 — and the protocols that make sure you never quit something that's working.

FOR	USE	READ	AN OPTML FIELD GUIDE
GLP-1 Patients	Lifetime Reference	25–35 min	No. 01

A NOTE BEFORE YOU BEGIN

Read this *before* you panic.

Side effects are the number one reason patients quit a GLP-1 in the first 90 days. Almost every one of those quits was avoidable.

Nausea. Constipation. Fatigue. Sulfur burps. Hair shedding. Heartburn. **None of these mean the medication isn't working.** Most of them mean it's working exactly as designed — your gastric emptying has slowed dramatically, your appetite signal has changed, and your body is recalibrating around a new normal.

The job of this guide is simple: **tell you what's happening, when it's normal, what to do, and exactly when to call your clinician.** Keep it on your phone. Reference it at 11pm when something new shows up. Most of what scares new GLP-1 patients is just a missing instruction manual.

This is that manual.

IMPORTANT

This guide is education, not medical advice. It does not replace your clinician. **When in doubt, message your OPTML care team.** They've seen all of this — and they'd rather hear from you early than late.

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Inside.

Side effects are the medication working.

A GLP-1 doesn't just suppress your appetite. It rewires three different systems at once — and most of what feels wrong in the first six weeks is your body adjusting to the new wiring.

EXPERIENCE SIDE EFFECTS

~80%

of GLP-1 patients have at least one notable side effect — usually mild, usually temporary

WHEN THEY PEAK

2–6

weeks after each dose escalation — the body needs time to settle into a new dose level

MOST RESOLVE IN

4–8

weeks at any given dose. If a symptom is escalating past week 6, it's time to message the clinic.

The three systems being rewired.

1 · GASTRIC EMPTYING

Food sits in your stomach **2–4× longer** than before. That's the source of nausea, fullness, reflux, and sulfur burps. It's also why portion sizes shrink dramatically — your stomach is genuinely fuller for longer.

2 · CENTRAL SATIETY

The medication signals your brain that you're full — even when your stomach is partly empty. This is the appetite suppression. It also dampens "food noise" — the constant mental loop about what to eat next.

3 · INSULIN & GLUCOSE

Blood sugar regulation improves dramatically. Insulin sensitivity rises. **This is the metabolic upgrade** — and the reason GLP-1s help with more than weight loss.

Almost every side effect you'll experience traces back to one of these three changes. Once you know the mechanism, the protocol writes itself.

What to expect — *week by week.*

Almost every GLP-1 patient walks the same path through the first 90 days. Side effects don't show up randomly. **They follow the dose schedule.** Knowing where you are on the map is half the battle.

START	SETTLING					1ST ESCALATION	2ND ESCALATION			STEADY STATE	
WK 1	WK 2	WK 3	WK 4	WK 5	WK 6	WK 7	WK 8	WK 9	WK 10	WK 11	WK 12

WK	PHASE	WHAT'S NORMAL	WATCH FOR
1	START	First injection. Mild nausea possible within 24–48h. Reduced appetite by day 3.	**Severe pain**
2	SETTLING	**Peak nausea week.** Appetite suppression strong. Some fatigue. This is the hardest week.	**Vomiting >2×/day**
3–4	SETTLING	Symptoms start easing. Body adjusting to dose. Energy improving. Weight loss visible.	**Symptoms worsening**
5–6	STEADY	Most patients feel close to normal. Stable appetite. Predictable energy. This is the "good week" before escalation.	**Symptoms returning**
7	ESCALATION	**Dose increase.** Side effects often return — usually milder than week 2 but in the same flavor. Expect 1–2 rough days.	**Pain, fever**
8–10	SETTLING	Second settling period. Symptoms resolve faster this time. Energy and weight loss compound.	**No improvement**
11–12	STEADY	**You're past the worst.** Steady state on your new dose. Body has adapted. Decisions about further escalation begin here.	**Plateau too long**

> **The pattern.** Side effects spike *after dose increases* and resolve *within 4–8 weeks at any given dose*. If you're past week 8 on a stable dose and still suffering — it's time to message your clinician.

Green. Yellow. Red. Know the difference.

The single most useful skill for a new GLP-1 patient is knowing which symptoms to ride out, which to flag, and which mean drop everything and call. Most symptoms are green. A few are yellow. A small handful are red.

THE TRIAGE LEVELS

GREEN
HANDLE YOURSELF
Mild & expected · use the playbook

TARGET
YELLOW
MESSAGE CLINIC 24H
Persistent or worsening · not urgent

RED
CALL NOW / ER
Severe · immediate care needed

GREEN

- **Mild nausea** after eating
- **Reduced appetite**
- **Constipation** < 4 days
- **Mild fatigue**
- **Sulfur burps**
- **Small weight fluctuation**
- **Minor injection bruising**

YELLOW

- **Nausea** lasting > 1 week post-dose
- **Vomiting** > 1×/day for 2+ days
- **Diarrhea** > 3 days
- **Constipation** > 5 days
- **Persistent fatigue** > 1 week
- **Heartburn** not responsive to OTC
- **Skipping meals** involuntarily

RED — CALL NOW

- **Severe abdominal pain** radiating to back
- **Vomiting** + can't keep water down 12h
- **Fever + nausea** together
- **Yellow skin or eyes**
- **Severe right-upper-quadrant pain**
- **Confusion / dizziness on standing**
- **Allergic reaction signs**

> **If you're not sure — go up a level.** Your OPTML clinician would rather field a yellow message that turns out to be green than receive a red call too late. Err on the side of contact.

The most common symptom. Almost always temporary.

Roughly 70% of GLP-1 patients experience nausea at some point. It's almost always worst in the 48–72 hours after an injection — especially after a dose escalation — and it almost always resolves within 2–3 weeks at a stable dose.

EXPERIENCE IT

~70%

of GLP-1 patients in the first 90 days

PEAKS AT

48h

after injection — especially after a dose increase

USUALLY RESOLVES

2–3wk

at a stable dose. Returns briefly with each escalation.

WHY IT HAPPENS

Your stomach is emptying 2–4× slower than it used to. Food that you'd normally process in 90 minutes is now sitting there for 3–6 hours. **Your stomach is genuinely fuller for longer.** Combine that with the central appetite suppression, and even small meals can trigger nausea. This is the medication working.

The protocol.

01 **Eat smaller. Eat slower. Eat earlier.**

Half your usual portion, take twice as long, and stop eating 3 hours before bed. The single biggest lever for managing nausea.

02 **Skip greasy, fried, and very rich foods for 48h post-injection.**

Fat slows gastric emptying even further. After a dose, your stomach is already overwhelmed — don't add to it.

03 **Ginger, peppermint, lemon water.**

Ginger chews, ginger tea, peppermint, or lemon water settle the stomach. Cheap, effective, no side effects of their own. Keep some at your desk and on your nightstand.

04 **Stay upright after eating.**

No couch lay-downs after a meal for at least 60 minutes. Sitting upright or walking helps the slow emptying.

05 **Cold & bland over hot & spicy.**

Greek yogurt, plain rice, banana, applesauce, dry toast. Crackers if nothing else stays down. Cold foods often sit better than hot.

The escalation playbook. *And when to call.*

Vomiting on a GLP-1 is less common than nausea but not rare — roughly 20–25% of patients experience it at some point. **Once or twice in a 24-hour stretch after a dose is usually green.** Repeated vomiting that prevents you from keeping water down is yellow. Vomiting + severe abdominal pain is red.

THE ESCALATION LADDER

01 **Step 1: Stop eating.**
Solids out for 4–6 hours. Sip water only.

02 **Step 2: Electrolyte sips.**
Pedialyte, LMNT, Liquid I.V. Small sips every 10–15 min. Don't chug.

03 **Step 3: Bland solids.**
Plain rice, banana, dry toast, applesauce. Tiny portions.

04 **Step 4: If it persists > 24h.**
Message the clinic. Anti-emetic options exist (zofran, etc.) and your clinician can prescribe.

RED FLAGS — CALL NOW

- **Can't keep water down** for 12+ hours
- **Severe abdominal pain** radiating to back or shoulder
- **Pain + fever** at the same time
- **Blood** in vomit (red or black/coffee-ground)
- **Severe dehydration:** dizzy on standing, dark urine, no urine 8+ hrs
- **Confusion** or extreme weakness

These can indicate pancreatitis, gallbladder issues, or bowel obstruction. **Don't wait — call your clinic or go to an ER.**

After it passes.

Once you can keep water down for 4 hours, slowly return to bland solids over 24h. Hold off on coffee, alcohol, fatty foods, and full meals for another 24–48 hours. **Don't skip your next injection.** Talk to your clinician about whether to hold, reduce, or proceed at the next scheduled dose.

> **Recurring vomiting is not "just part of it."** If you're vomiting more than once a week, your dose may be too high for you. A pause or step-down is often the right answer — and it does not mean the medication failed. It means it needs to be titrated to your body.

Constipation. The unglamorous side effect.

Constipation affects roughly half of all GLP-1 patients. It's not just uncomfortable — left unmanaged, it becomes the reason people quit. The good news: it's almost entirely solvable with a 4-part daily protocol.

WHY IT HAPPENS

Three things at once: **(1)** slower gut motility from the medication, **(2)** you're eating much less (less material to move), and **(3)** you're often under-hydrated and under-fibered without realizing it. The fix is addressing all three.

The daily protocol.

01 **Water: 80–100 oz a day, every day.**

Half a gallon minimum. This is non-negotiable. Most GLP-1 patients drink far less than they did before — your thirst signal is suppressed alongside your hunger signal. Set hourly reminders if you have to.

02 **Fiber: 25–35 g a day.**

Berries, leafy greens, chia seeds, ground flax, beans, oats. If solid food is hard right now, fiber supplements (psyllium or methylcellulose) cover the gap. Take with plenty of water.

03 **Magnesium citrate: 200–400 mg at night.**

The most reliably effective constipation tool for GLP-1 patients. Bonus: it improves sleep. Start at 200 mg, work up if needed. Magnesium glycinate is gentler if citrate causes loose stool.

04 **Walk: 20+ minutes daily.**

Gut motility is gravity- and movement-dependent. The single best free intervention. A walk after dinner is often the difference between a regular morning and a frustrated one.

IF > 4 DAYS

Add a gentle stool softener (Colace) or osmotic laxative (Miralax). Continue magnesium. Drink more water.

IF > 6 DAYS OR PAINFUL

Message your OPTML clinician. They can recommend a stronger short-term option and check that nothing else is going on.

Diarrhea & sulfur burps. *Both fixable.*

The flip side of constipation is diarrhea — usually triggered by fatty meals, high-FODMAP foods, or sometimes just the medication itself. And then there's the famous "sulfur burps" — the rotten-egg burps that 15–20% of GLP-1 patients deal with. Neither is dangerous on its own. Both have clean fixes.

Diarrhea protocol.

DAILY MANAGEMENT

- **Cut fat hard** — fried foods, heavy sauces, full-fat dairy, large amounts of nuts/oil
- **Watch for sugar alcohols** — sorbitol, xylitol, erythritol can be triggers in "low-sugar" snacks
- **Hydrate aggressively** with electrolytes — diarrhea drains sodium and potassium fast
- **BRAT foods** — bananas, rice, applesauce, toast — for 1–2 days
- **Probiotic yogurt** daily can help restore gut bacteria

WHEN TO CALL THE CLINIC

- **More than 3 days** of multiple loose stools
- **Signs of dehydration** — dark urine, dizziness, weakness
- **Blood in stool** — call immediately
- **Severe abdominal cramping**
- **Fever with diarrhea**

The sulfur burp protocol.

Sulfur burps happen when food sits in your stomach long enough for bacteria to produce hydrogen sulfide gas. They taste like rotten eggs, they smell like rotten eggs, and they are mortifying — but they are not dangerous.

01 **The 3-3-3 rule.**

No large meals within **3 hours of injection**. No heavy or fatty meals within **3 hours of bed**. Eat **3 smaller meals** instead of 1–2 large ones on injection days.

02 **Pepto-Bismol or activated charcoal.**

Pepto (bismuth subsalicylate) binds hydrogen sulfide directly. One dose typically resolves sulfur burps within 1–2 hours. Charcoal works similarly. Check with your clinician before regular use.

When eating becomes the problem.

Fatigue and food aversion are the two side effects patients tend to underreport — partly because they're easy to misattribute to "life" rather than the medication. Both have clear mechanisms and clear fixes.

FATIGUE

Almost always traces to one of four things: **(1)** caloric intake too low, **(2)** dehydration, **(3)** electrolyte deficit (sodium, potassium, magnesium), or **(4)** poor sleep from a slowed digestive system.

The fix: hit a hard protein minimum (Ch. 8), 80–100 oz water, daily electrolytes, stop eating 3 hrs before bed. Most patients feel notably better within 4–5 days of fixing these four things.

FOOD AVERSION

Foods you used to love may suddenly taste wrong. Meat especially. Coffee can taste metallic. Sweet foods may turn sickly. **This is real, and it usually fades.** Your appetite rewiring is partly olfactory — your brain is adjusting what it considers "appetizing."

The fix: don't force foods you suddenly hate. Pivot to high-protein alternatives that still appeal — Greek yogurt, cottage cheese, protein shakes, eggs if those still work, white fish, chicken broth.

THE PROTEIN NON-NEGOTIABLE

Even when nothing sounds good — hit your protein minimum. **0.8 g of protein per pound of goal bodyweight, every day.** A protein shake counts. Greek yogurt counts. Bone broth + collagen counts. Below this, you lose muscle and your fatigue gets worse. This number is the floor of every good day on a GLP-1.

> **When fatigue is something else.** If fatigue is severe, accompanied by dizziness on standing, racing heart, or persistent brain fog — that's yellow. Message your clinician. Could be thyroid, low electrolytes, anemia, or something unrelated to the medication.

Heartburn. Hair. Skin. *Injection site.*

The side effects nobody mentions in the first appointment — usually because they're not medically alarming. But they're real, and patients quit over them. Here's the playbook for each.

HEARTBURN / REFLUX

Slowed gastric emptying = more reflux. Common, manageable.

- Stop eating 3 hours before bed
- Sleep with head slightly elevated
- OTC: famotidine (Pepcid) or omeprazole short-term
- Cut alcohol, coffee, spicy foods for 2 weeks
- If not improving in 2 weeks — message clinic

HAIR SHEDDING

Rapid weight loss can trigger **telogen effluvium** — temporary shedding 2–3 months after weight loss accelerates. It is not GLP-1 specific. It is reversible.

- Hit protein minimum daily (the biggest lever)
- Adequate iron, zinc, biotin, vitamin D
- Most patients see regrowth within 4–6 months
- Slower weight loss = less shedding

SKIN CHANGES

Loose skin and dryness are common after meaningful weight loss. Some is unavoidable. Much is manageable.

- Slower weight loss preserves more skin elasticity
- Hydration + collagen-rich foods (or supplement)
- Resistance training fills the underlying volume (Vol. 0–3)
- Topical retinoids long-term help collagen

INJECTION SITE

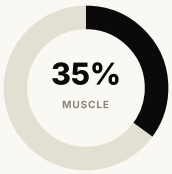
Minor redness, bruising, or itching at the injection site is green. Persistent or growing reactions are yellow.

- Rotate sites: abdomen, thigh, upper arm
- Inject at room temperature — cold meds sting more
- Pinch a generous fold of skin, inject perpendicularly
- Ice for 30 sec after if bruising
- Hot, swollen, or spreading redness = call clinic

> **The skin and hair side effects are usually about pace, not the medication.** Patients who lose weight more slowly — 1–2 lbs / week instead of 4–5 — almost always keep more skin elasticity and shed less hair. If you're losing fast and concerned, a dose pause or step-down is a legitimate option to discuss with your clinician.

The side effect no one warns you about.

Of every problem on this list, this is the one you can't see coming and can't undo. Without resistance training and adequate protein, 25–40% of the weight you lose on a GLP-1 will be lean mass — muscle, organ tissue, and bone. **That part doesn't show up as a side effect until later. By the time it does, it's hard to reverse.**



WITHOUT TRAINING

35% lost is muscle

12–16 lbs of muscle gone on a 40-lb loss. Resting metabolism crashes. Body looks smaller — but softer.

WITH OPTML VOL. 0 + PROTEIN

~90% lost is fat

Two strength sessions a week + 0.8 g protein per lb of goal weight. Same scale, completely different body.

The two non-negotiables.

01 **Strength train twice a week — minimum.**

Vol. 0 of the OPTML Training System is built for exactly this audience. Two 45-minute sessions a week is enough to protect almost all of your muscle through the weight loss phase. Not optional.

02 **Hit your protein floor every single day.**

0.8 g per pound of goal bodyweight

— every day, including hard days, including the days you don't feel like eating. Below this, the math doesn't work and you lose muscle no matter what you do at the gym.

THE POST-GLP-1 PROBLEM THIS SOLVES

Patients who don't train regain weight faster after coming off GLP-1 — because they have less muscle to support a higher metabolism. **The work you do now is what keeps the weight off later.**

Hydration. Electrolytes. The two-pillar foundation.

If you only fix two things on this medication, fix water and electrolytes. Roughly 60% of side effects — fatigue, dizziness, headaches, leg cramps, brain fog, even some constipation — trace back to inadequate hydration. Most patients underestimate by 30–50%.

DAILY WATER TARGET

80–100oz

Half a gallon to 3/4 gallon. More if you train or live somewhere hot.

SODIUM TARGET

2–3g

2,000–3,000 mg/day. Most reduced-appetite patients underrun this. Salt your food.

POTASSIUM TARGET

3.5g

Bananas, potatoes, leafy greens, electrolyte mixes. Critical for muscle and heart.

The daily hydration protocol.

01 **One full glass of water — before coffee.**

Your hydration clock starts the moment you wake up. 16 oz at the bedside is the easiest habit to install. The rest of the day follows.

02 **One electrolyte serving per day. Two on training days.**

Brands that work:

LMNT

(high sodium, sugar-free),

Liquid I.V.

(balanced),

Nuun

(lighter). Sugar-free options preferred when on a deficit. Drink it. Don't sip it over hours.

03 **Salt your food generously.**

A reduced-appetite patient eats less food = less sodium = headaches, fatigue, and dizziness. Salt is a feature, not a bug. Use it deliberately.

04 **One marker check: urine color.**

Pale yellow = adequate. Dark yellow = behind. Clear = too much (rare). Check it once a day. It's free and never lies.

Protein. Sleep. *The two pillars under the foundation.*

Water and electrolytes prevent the symptoms. Protein and sleep determine whether you actually keep the muscle, the energy, and the metabolic upgrade you signed up for.

The protein floor.

THE MATH

0.8–1.0 g of protein per pound of goal bodyweight, every day. If your goal is 150 lbs, you need 120–150 g of protein daily. Below this, you lose muscle even if you're training. There is no workaround.

WHEN SOLID FOOD IS HARD

- **Protein shake** — 30 g in 8 oz of liquid
- **Greek yogurt** — 20 g per cup
- **Cottage cheese** — 25 g per cup
- **Bone broth + collagen** — 20 g per serving
- **Egg whites** — 25 g per cup

The sleep protocol.

GLP-1s can disrupt sleep early on — slowed digestion, vivid dreams, occasional reflux, and bathroom interruptions all play a role. Three habits restore most of it.

01 **Stop eating 3 hours before bed.**

The single highest-leverage sleep habit on a GLP-1. With slow gastric emptying, late meals = poor sleep, reflux, and morning nausea. Last bite by 7pm if you're a 10pm sleeper.

02 **Magnesium glycinate 200–400 mg, 60 minutes before bed.**

Doubles as the constipation fix (Ch. 4) and a sleep aid. Glycinate is the gentler form — won't loosen stool the way citrate does. Pair with the last glass of water of the day.

03 **Cool, dark, consistent.**

65–68°F. Blackout curtains or an eye mask. Same bedtime within a 30-minute window every night. Boring advice that works.

> **Vivid dreams are common.** Particularly in the first 4–6 weeks. They tend to resolve as your dose stabilizes. They are not dangerous. If they're truly disruptive — message your clinician.

Stay. Pause. Step down. Push through.

Not every rough week means the dose is wrong. Not every rough week means you should push through, either. Here's the decision framework — and the script for talking about it with your clinician.

DECISION	WHEN TO CHOOSE IT	WHAT IT LOOKS LIKE
Push through	**Side effects are mild, recent, and improving day-over-day. You're within the first 2 weeks of a dose.**	Continue current dose. Stay in the protocol. Most symptoms resolve in 2–3 weeks.
Stay	**You're tolerating well at current dose, weight loss is steady, and your clinician isn't pushing escalation. This is the underrated choice.**	Hold at current dose for 1–3 more months. Don't escalate just because the schedule says to.
Pause	**Severe symptoms (multi-day vomiting, diarrhea, dehydration) but no red flags. Need a recovery week.**	Skip one dose. Talk to your clinician before the next scheduled injection. Often resolves the issue completely.
Step down	**Symptoms returned aggressively after a dose escalation and aren't improving by week 3 at the new dose.**	Drop back to the previous dose for 4–8 weeks. Re-attempt the escalation when stable.
Switch / Stop	**Symptoms persist for 8+ weeks at a stable dose despite the protocol. Or a clinically concerning event happened.**	Clinician-led decision. Sometimes a different GLP-1 (semaglutide vs. tirzepatide vs. retatrutide) tolerates differently.

> **The script for messaging your clinician.** "I'm on [dose] of [medication]. I'm experiencing [symptoms] that started [when] and have been [worsening/stable/improving]. I've been doing [protein, water, electrolytes, etc.]. I'm wondering if we should [pause / step down / stay / switch]." *Specific is faster than vague. Clinicians can act on this in one message.*

There is no medal for pushing through. **The best dose is the one you can stay on indefinitely without misery.** A lower dose tolerated for 12 months will outperform a higher dose abandoned at week 6, every time.

The symptoms that can't wait.

Almost every side effect you'll encounter on a GLP-1 is manageable, temporary, and not dangerous. A small number are not. This is the final reference page — the one you screenshot and keep on your phone.

CALL URGENT CARE OR 911 — DO NOT WAIT

- **Severe abdominal pain** — especially radiating to the back. Could indicate pancreatitis.
- **Right-upper-quadrant pain** — possible gallbladder. Often after fatty meals.
- **Yellow skin or eyes** — jaundice. Could indicate gallbladder or liver issue.
- **Vomiting + can't keep water down** for 12+ hours. Dehydration risk.
- **Blood** in vomit or stool — red, black, or coffee-ground appearance.
- **Confusion, severe weakness,** or fainting on standing.
- **Allergic reaction** signs — hives, facial swelling, difficulty breathing.
- **Severe headache + visual changes** + nausea together.

Yellow — message your OPTML clinician within 24 hours.

- **Nausea or vomiting** lasting > 1 week post-dose
- **Constipation** > 5–6 days despite the protocol
- **Diarrhea** > 3 days
- **Persistent fatigue** beyond the first 2 weeks of a dose
- **Heartburn** not improving on OTC medication
- **Injection site reactions** that are growing or warm
- **Mood changes** — depression, anxiety, low motivation
- **Involuntarily skipping meals** for multiple days in a row

> Your OPTML clinician would rather hear from you about a yellow symptom that turns out to be green than miss a red one you tried to handle alone. **Message early. Message often. That's what we're here for.**

— The OPTML Team

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The medication is the easy part. This is the rest.

AN OPTML FIELD GUIDE

No. 01 · Side Effects (GLP-1)

FOR OPTML PATIENTS

FREE TOOLS · OPTML.HEALTH

Keep optimizing.

Free tools to put this guide into action — no sign-up required. Scan to get started.

SCAN TO OPEN

The OPTML Method

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SCAN TO FIND

Training sets

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THE NEXT STEP

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