A WOMEN'S HEALTH PERSPECTIVE

GLP-1 Truths

Cutting Through the Hype

Robin Prugno, DO, MSCP

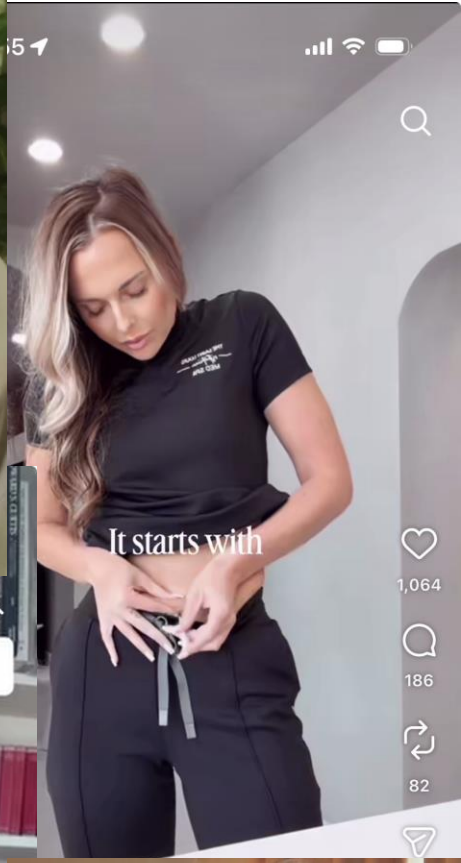
Premier Women's Health – Oakdale OBGYN


"most peptides aren't FDA approv
NEITHER IS...
• Alcohol
• Supplements
• Creatine
• Caffeine
• Essential oils
• Probiotics
• Makeup/cosmetics

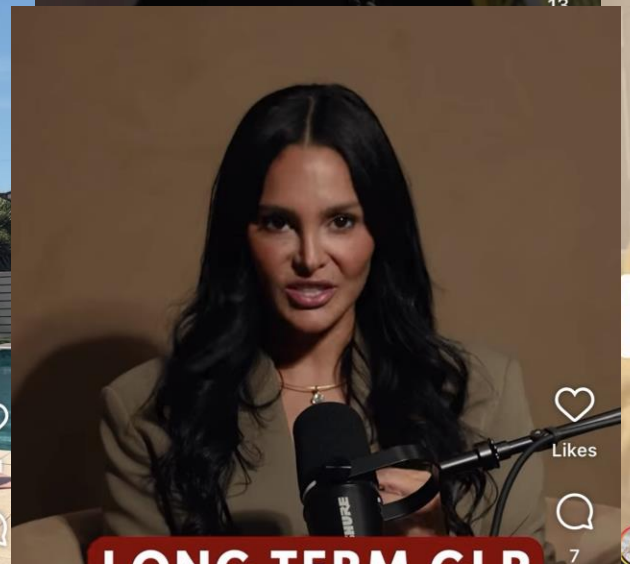

as a crash diet.

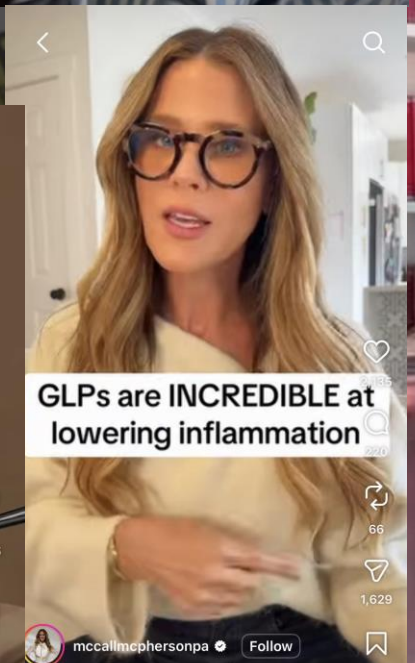

3 Reasons
GLP-1s are Great
for Women 40+
midihealth and
aliciarobbinsmd
Follow
Curious about GLP-1s? They're proving to be a ...

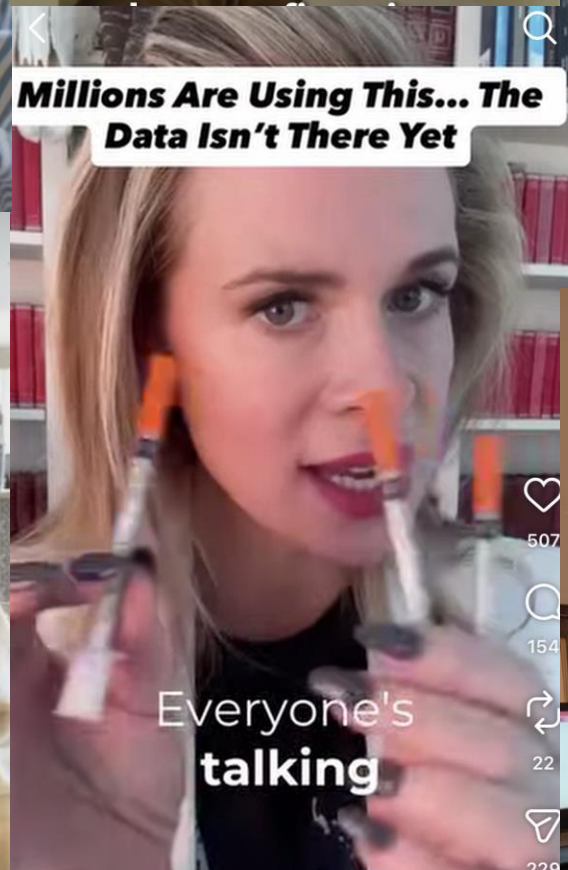

OPRAH'S AHA MOMENT
THE MOMENT SHE TOOK A
WEIGHT LOSS DRUG


It starts with


1/14
Peptides will be one of the
most powerful tools in
women's health in 2026.


Likes


GLPs are INCREDIBLE at
lowering inflammation
mccallmcphersonpa
Follow


Millions Are Using This... The
Data Isn't There Yet
Everyone's
talking


GLP-1 Must Knows

Only **14.3%** of social media videos about GLP-1 medications and weight –loss were made by medical professionals (individuals).

Kresovich, et al. High-Engagement Social Media Posts Related to Prescription Drug Promotion for 3 Major Drug Classes. JAMA. 2026 Jan 13; 335(2):181-183.

THE CONVERSATION HAS CHANGED

Why everyone is talking about GLP-1s

1 in 8

Have used a GLP-1

KFF Health Tracking Poll, 2024

15–20%

average body-weight loss

STEP-1, NEJM 2021; SURMOUNT-1, NEJM 2022

20%

fewer cardiovascular events

SELECT trial, NEJM 2023

ROADMAP

Our time together

1. How they work

2. Approved & emerging uses

3. Pitfalls of peptides

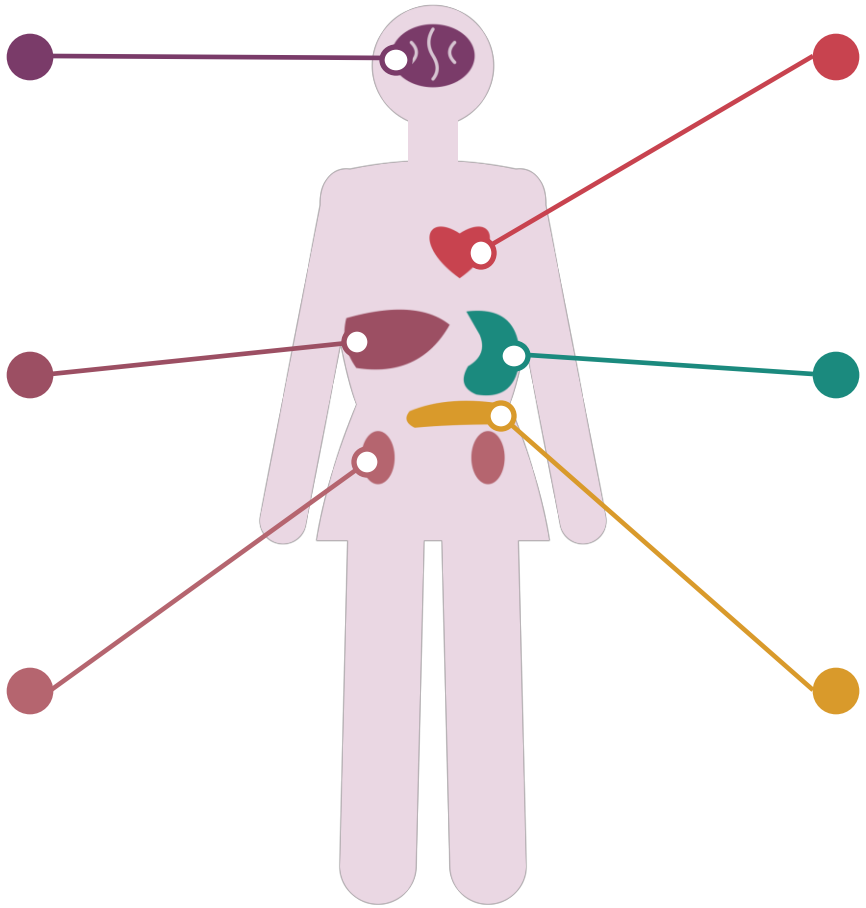
4. Fact vs. fiction

5. Midlife & menopause

6. Longevity: Top 5 factors

How GLP-1 medications work in your body

GLP-1 is a natural gut hormone released after you eat. The medications mimic it at higher, longer-lasting levels.



Brain

Boosts fullness and quiets hunger and “food noise”

Liver

Clears stored fat from liver

Kidneys

Protects kidney function

Heart & blood vessels

Lowers blood pressure, heart-attacks, & stroke risk

Stomach & Bowels

Slows emptying so you feel full longer, slows gut motility

Pancreas

Regulates insulin; lowers glucagon

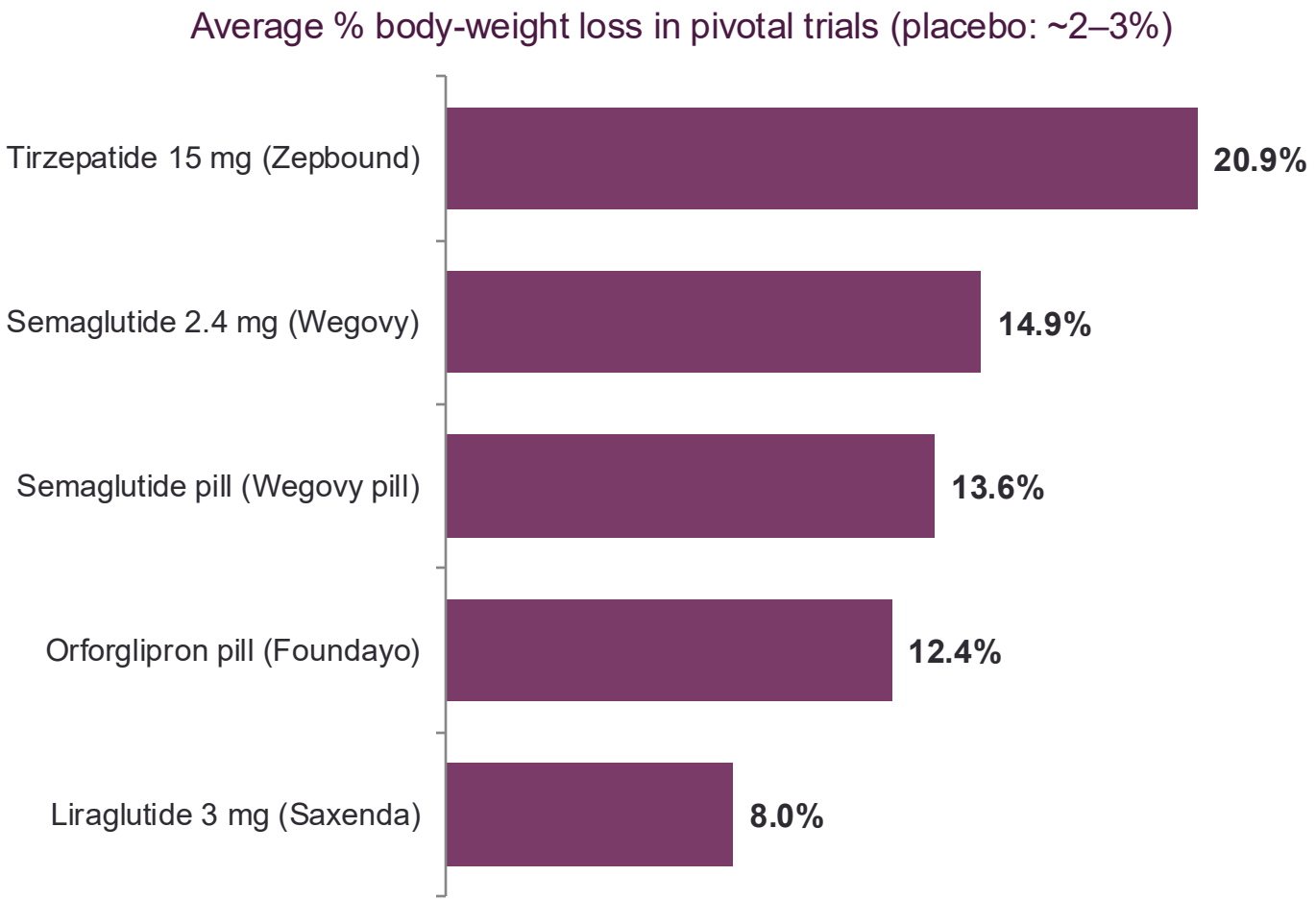
ON THE LABEL

FDA-approved uses (2026)

Indication	Brand
Type 2 Diabetes	**Ozempic** **Mounjaro** **Rybelsus**
BMI >27 + comorbidity BMI >30	**Wegovy** **Zepbound** **Saxenda** **Foundayo**
Obstructive Sleep Apnea	**Zepbound**
Metabolic Steatohepatitis (MASH) High-risk Cardiovascular events	**Wegovy**

Weight-management criteria: BMI ≥ 30, or BMI ≥ 27 with a weight-related condition (e.g., high blood pressure, prediabetes, high cholesterol).

The medications — and what the trials showed



SCALE (2015), ATTAIN-1 (2025), OASIS 4 (2025), STEP-1 (2021), SURMOUNT-1 (2022). Different designs and populations; not head-to-head.

Good to know

- Ozempic & Mounjaro = Wegovy & Zepbound
- Weekly injections or daily pills
- Doses are increased gradually over months
- Individual results vary widely

NOT FDA-APPROVED (YET)

Beyond the Label

What the research is exploring next — and how strong the evidence really is

HOW TO READ THE EVIDENCE TAGS

Strong — Large randomized trials

Promising — Smaller trials or large observational studies

Early — Small, short or survey-based studies

Not shown — Tested in big trials — did not work

EVIDENCE

Strong

Sleep apnea



Up to 63%

fewer breathing pauses per hour with tirzepatide

WHAT THE RESEARCH SHOWS

- Zepbound is FDA-approved (2024) for moderate-to-severe sleep apnea with obesity
- Sleep apnea rises after menopause and in women often looks like insomnia or fatigue

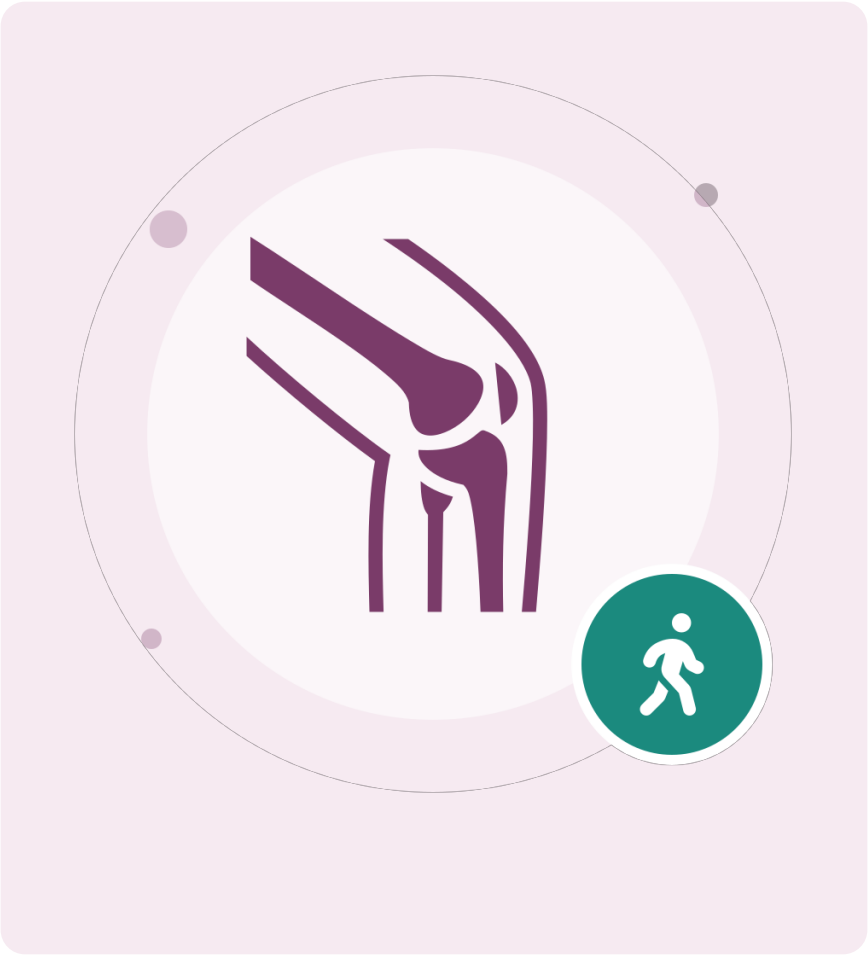
What it means for you: If you snore, wake unrefreshed or feel tired all day, ask about a sleep study.

Reference: *Malhotra A, et al. N Engl J Med 2024;391:1193-205 (SURMOUNT-OSA).*

EVIDENCE

Strong

Knee osteoarthritis



–42 vs –28

points of knee-pain improvement: semaglutide vs. placebo

WHAT THE RESEARCH SHOWS

- Large 68-week trial in people with obesity and painful knee arthritis
- Less pain and better physical function as weight came off

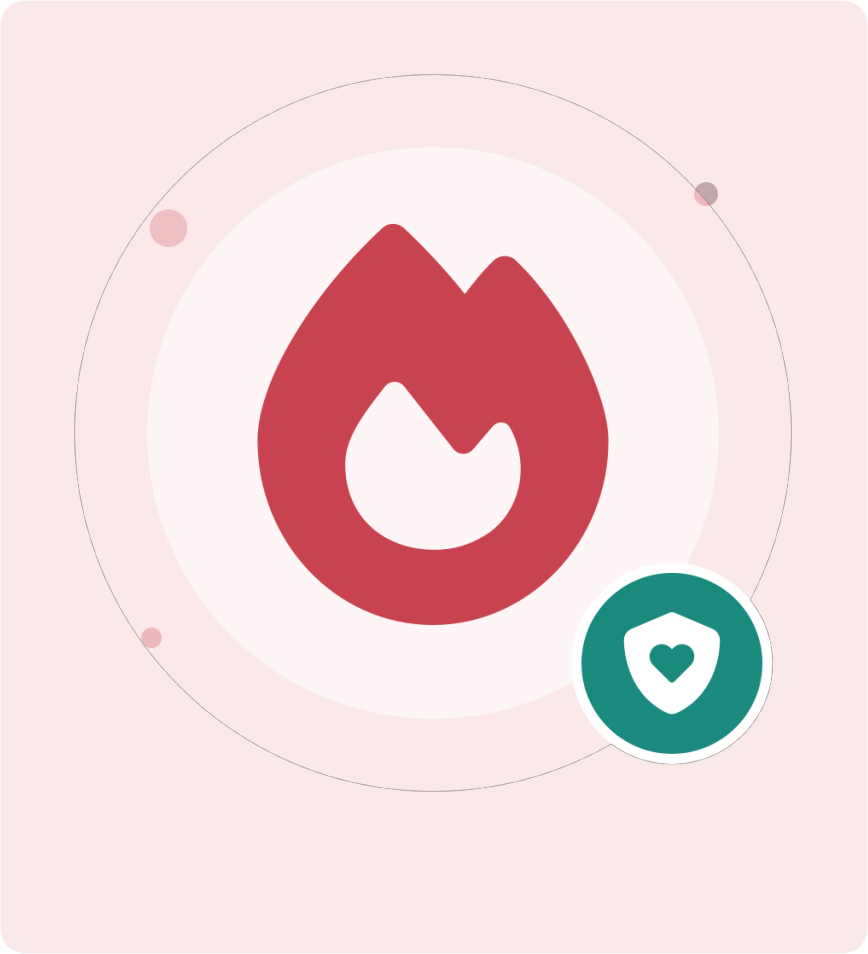
What it means for you: Weight loss eases the load on your knees. Pair it with strengthening and physical therapy for the best results.

Reference: *Bliddal H, et al. N Engl J Med 2024;391:1573-83 (STEP-9).*

EVIDENCE

Promising

Reducing inflammation



~44%

lower CRP — a blood marker of inflammation — with semaglutide vs. placebo

WHAT THE RESEARCH SHOWS

- Inflammation markers fell in the STEP and SELECT trials, partly beyond weight loss
- Early studies in psoriasis and arthritis; may help explain heart benefits

What it means for you: Calming chronic, low-grade inflammation may be one reason benefits reach beyond the scale. GLP-1s don't replace treatment for autoimmune diseases.

Reference: *Verma S, et al. eClinicalMedicine 2022 (STEP 1–3 CRP analysis); Verdoia M, et al. Front Endocrinol 2024 (meta-analysis).*

EVIDENCE

Promising

Cancer risk reduction



17%

lower risk of 14 obesity-related cancers in GLP-1 users with obesity

WHAT THE RESEARCH SHOWS

- Lower rates of endometrial and ovarian cancer in a study of ~86,600 adults
- Higher sensitivity of treatment with endometrial cancer
- Possibly lower risk of breast cancer

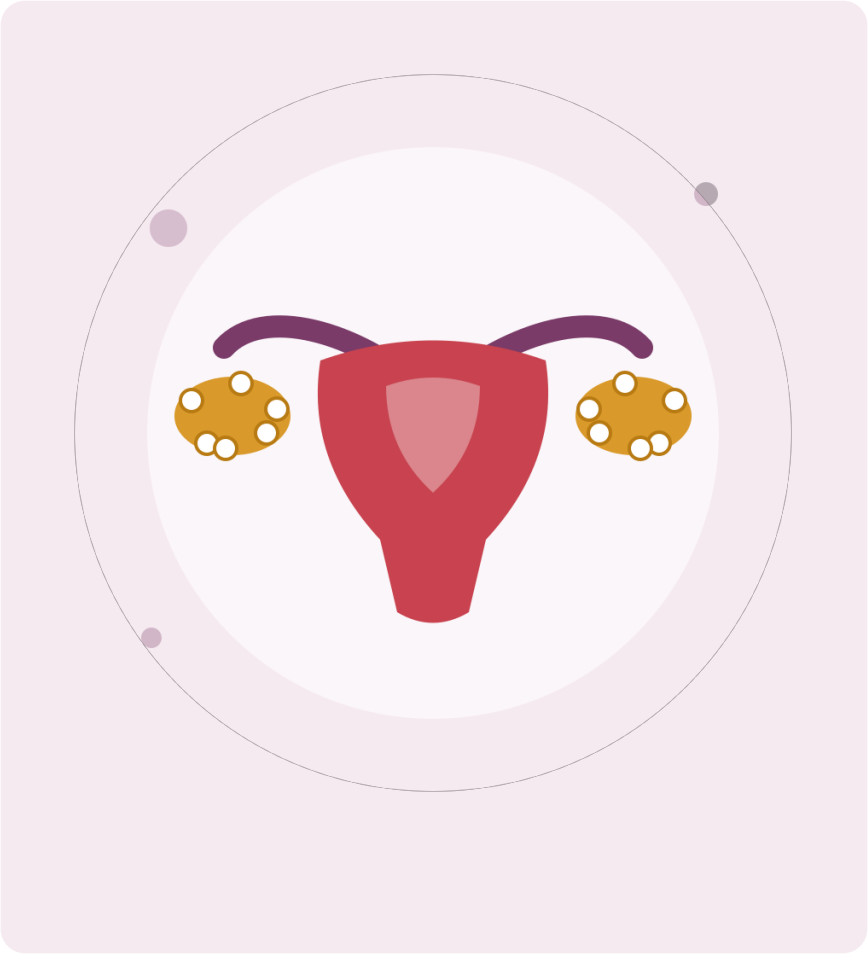
What it means for you: Encouraging, but not a reason to start a GLP-1 for cancer prevention. Keep up with your mammograms and other screenings.

Reference: *Dai H, et al. JAMA Oncol, published online Aug 21, 2025.*

EVIDENCE

Promising

Polycystic ovary syndrome (PCOS)



–3.6 kg

more weight loss than metformin or placebo across 13 trials

WHAT THE RESEARCH SHOWS

- Better insulin resistance and, vs. placebo, lower testosterone
- Cycles can become more regular and ovulation may return

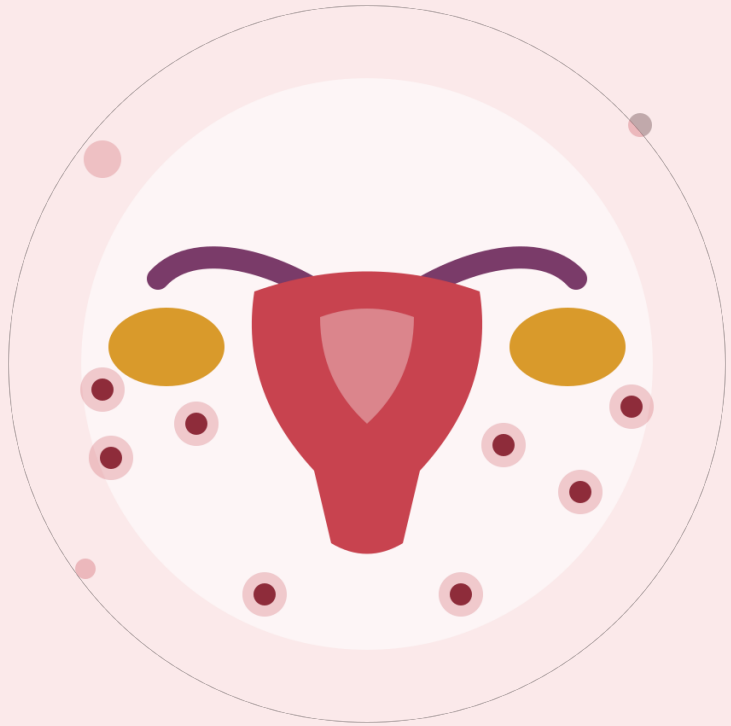
What it means for you: Ovulation can return quickly — use reliable birth control, and stop at least 2 months before trying to conceive.

Reference: *Lin S, et al. Sci Rep 2025 (meta-analysis of 13 RCTs).*

EVIDENCE

Early

Endometriosis



~2 in 3

survey respondents reported less pain or bloating

WHAT THE RESEARCH SHOWS

- No clinical trials yet — only a 2026 international patient survey
- Symptoms often came back after stopping; lab studies suggest anti-inflammatory effects

What it means for you: Interesting, but not proven. Standard endometriosis care comes first — ask whether a research study is right for you.

Reference: *Leonardi M, et al. International survey study, 2026 (preprint, not yet peer-reviewed).*

EVIDENCE

Early

Alcohol use disorder



Less craving

and fewer drinks per drinking day with low-dose semaglutide

WHAT THE RESEARCH SHOWS

- Small, 9-week randomized trial (48 adults)
- Larger trials are under way; GLP-1s act on the brain's reward system

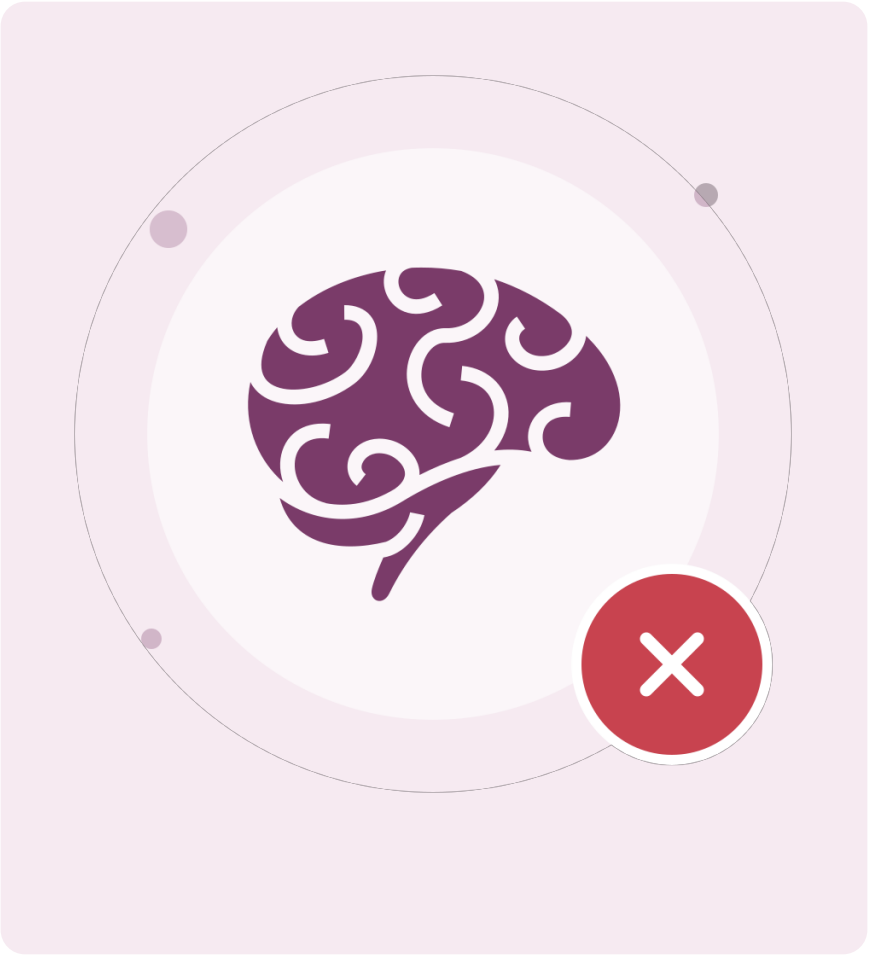
What it means for you: Promising for the future, but proven treatments for alcohol use disorder come first. Alcohol also raises breast-cancer risk.

Reference: *Hendershot CS, et al. JAMA Psychiatry 2025;82:395-405.*

EVIDENCE

Not shown

Alzheimer's disease



~3,800

people with early Alzheimer's studied — no slowing of memory decline

WHAT THE RESEARCH SHOWS

- Earlier observational studies hinted at lower dementia rates
- Two large randomized trials of oral semaglutide found no benefit over 2 years

What it means for you: GLP-1s should not be taken to prevent or treat Alzheimer's. Heart-healthy habits remain the best brain protection.

Reference: *evoke/evoke+ Investigators. Lancet 2026 (evoke & evoke+ trials).*

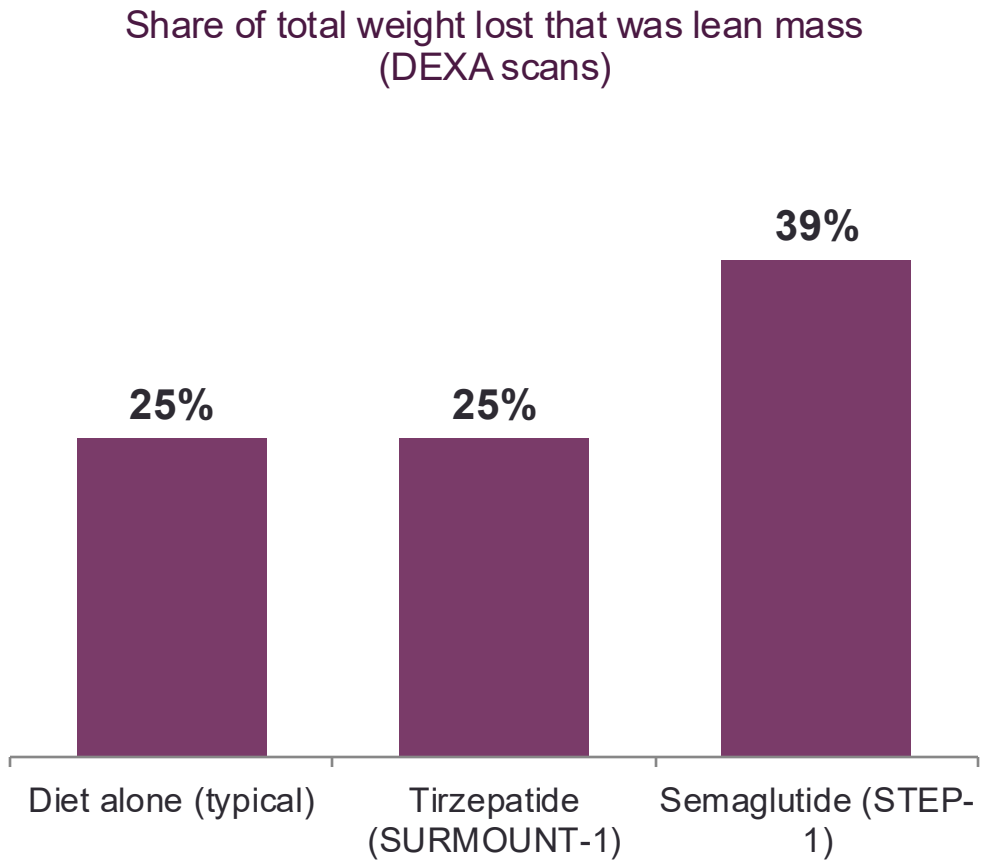
Pitfalls of GLP Peptides

The downsides of GLP-1 medications — and how to protect your

The downsides no one posts about

- Muscle loss
- Bone thinning
- Stomach side effects
- Nutrient gaps
- Weight regain
- Unregulated “peptides”

How much of the weight lost is muscle?



Heymsfield "quarter rule"; SURMOUNT-1 & STEP-1 DEXA sub-studies (NEJM 2021–22)

"Lean mass" isn't all muscle

Muscle Volume Falls, "Quality" Improves

Menopause Alert!

Protect your muscle

Resistance training

- 2–3 sessions a week, working all major muscle groups
- Make it progressively harder (weights, bands, body weight)
- Add brisk walking or other cardio most days
- Start before or when you start the medication



Protect your muscle

Protein

- Higher protein intake during caloric restriction attenuates loss of lean body mass
- 1.2–1.6 g per kg of body weight daily
- Spread over meals: ~25–40 g each
- Eat protein first — shakes help when appetite is low

150-lb woman (68 kg) ≈ 80–110 g/day



Protect your muscle: consider creatine



Creatine monohydrate

- 3–5 g per day
- Works best WITH strength training
- Choose third-party-tested products
- Check with your doctor if you have kidney disease

Plus: calcium 1,200 mg & vitamin D 800–1,000 IU daily (diet + supplement)

Protect your muscle: lift, eat protein, consider creatine

Resistance training

- 2–3 sessions a week, working all major muscle groups
- Make it progressively harder (weights, bands, body weight)
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Creatine monohydrate

- 3–5 g per day — no “loading” needed
- Works best WITH strength training
- Choose third-party-tested products
- Check with your doctor if you have kidney disease

Plus: calcium 1,200 mg & vitamin D 800–1,000 IU daily (diet + supplement)

GLP-1s and your bones: what the data show

- **Bone density can drop**
- **More osteopenia over time**
- **Fractures: not increased so far**



Protect Your Bones!



GLP-1s with a BMI under 27: the downsides

WHO'S USING THEM?

35% had a normal BMI

85% were women

No proof of benefit over risks

More muscle lost

The leaner you start, the bigger the share of weight lost from muscle

Bone at risk

Low body weight is itself a risk factor for osteoporosis

Undereating

Too little protein & nutrients: fatigue, hair shedding, weakness

Exceptions to discuss with your clinician: type 2 diabetes (approved at any BMI) • Asian ancestry, where health risks begin at lower BMI

Fact vs. Fiction

Things you may have heard — checked against the evidence

FACT VS. FICTION

Willpower, miracles & shortcuts

FICTION

“GLP-1s are a cosmetic shortcut for people who lack willpower.”

FACT

Obesity is a chronic, biologically driven disease.
→ fewer heart attacks and strokes, slower kidney decline, and improved sleep apnea and fatty liver disease.

FICTION

“Everyone on these drugs loses 50 pounds.”

FACT

Results vary A LOT!
Genetics, dose, other medicines, sleep and menopause status all play a role.

What's in the vial — and in the mirror

FICTION

"Compounded or online versions are the same thing, just cheaper."

FACT

Compounded GLP-1s are not FDA-approved or reviewed for safety, purity or dose accuracy.

FICTION

"'Ozempic face' is caused by the drug itself."

FACT

It comes from rapid weight loss, not a unique drug effect.

FACT VS. FICTION

Hair & bones

FICTION

“GLP-1s make your hair fall out for good.”

FACT

Hair shedding was reported by about 4–7% of women in trials (vs. ~1% on placebo). It’s usually temporary shedding from rapid weight loss — it starts 2–4 months in and regrows within 6–9 months.

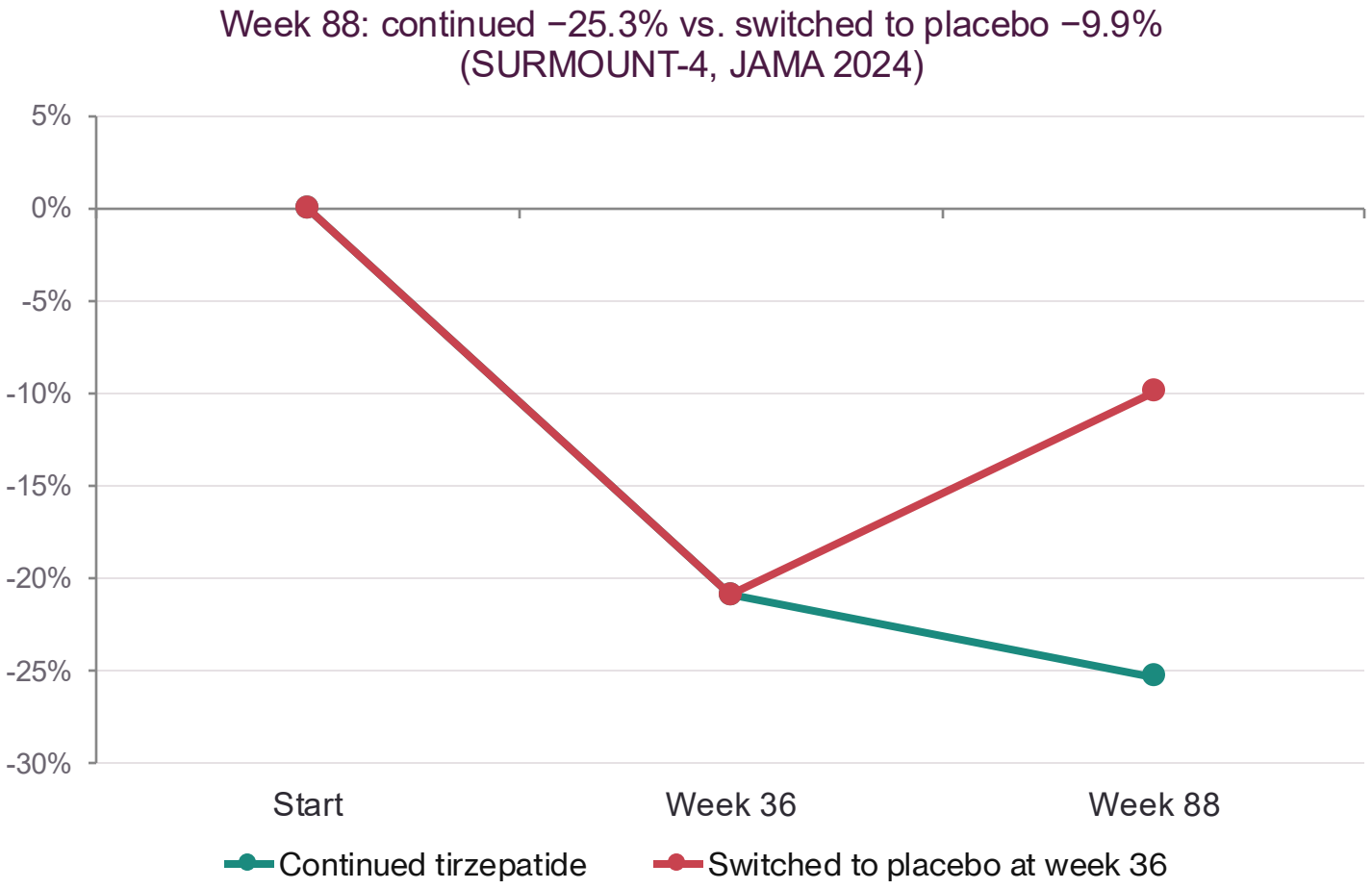
FICTION

“GLP-1s will give me osteoporosis.”

FACT

Bone density can dip as weight comes off — especially without exercise — but large studies have not shown more broken bones so far. Strength training, calcium and vitamin D, and a bone-density scan when needed protect you.

Fiction: “Take it a few months, then stop”



FACT

- For most people, stopping brings hunger — and weight — back
- Blood pressure, sugar & cholesterol gains fade too
- Think of it like blood-pressure medicine: it works while you take it
- Some can step down to a lower maintenance dose
- Habits built on the medication are what you keep

What women especially need to know

Birth control

Tirzepatide can make birth-control pills less effective. Use a non-oral method, or add a barrier method for 4 weeks after starting and after each dose increase.

Fertility, Pregnancy & breastfeeding

Weight loss can restore ovulation, especially with PCOS — surprise pregnancies happen. Stop semaglutide at least 2 months before trying to conceive.

Not recommended during pregnancy or breastfeeding. Plan ahead with your OB-GYN.

Menopause

Higher rate of insulin resistance and metabolism disruption.
Rising evidence for GLP-1 use in menopause.

Bone check

After menopause, ask whether you need a bone-density (DEXA) scan before starting — and how you'll protect your bones.

Midlife & Menopause

As estrogen declines, the body changes — even when habits don't:

Fat shifts to the belly

More visceral fat, raising heart and metabolic risk

Muscle & bone decline

Lean mass and bone density fall faster after menopause

Insulin resistance rises

Blood sugar and cholesterol often worsen

Sleep & mood disruption

Poor sleep drives appetite and cravings

NEW STUDY • 2026

35%

more weight loss on tirzepatide among postmenopausal women also using hormone therapy

Mayo Clinic, Lancet Obstet Gynaecol Womens Health, Jan 2026 (n=120)

An observational study — it can't prove hormone therapy caused the difference. GLP-1s and hormone therapy do different jobs and may work well together.

Longevity in Women's Health

Adding healthy years to life — lessons from GLP-1s, hormone therapy and the Blue Zones

Women live longer — but not always healthier

2.4 yrs

longer in poor health for women than men, worldwide

#1

cause of death for women is heart disease — not cancer

Can GLP-1s impact longevity?

The Blue Zones

Five places where people often live to 90–100 in good health:



Mayo Clinic, JAMA Netw Open 2024 (183 countries); CDC

Top 5 factors for longevity in women

1



Protect your heart & metabolism

Know your numbers; treat weight, BP, sugar & cholesterol

2



Move daily & build strength

Muscle and bone are longevity organs

3



Consider hormones in your plan

Personalized menopause care, including hormone therapy when appropriate

4



Connection, purpose & intimacy

Relationships, meaning — and sexual health

5



Sleep, stress & smart habits

Rest, downshift, limit alcohol, no smoking, screenings

Three lenses on the same five factors

Factor	GLP-1 data	Hormone therapy data	Blue Zones
1. Heart & metabolism	20% fewer heart attacks, strokes & CV deaths (SELECT)	Started early: better cholesterol, less new diabetes	Plant-slant eating; stop at 80% full
2. Strength & movement	Pair with strength training to protect muscle	Prevents bone loss; fewer fractures (WHI)	Move naturally all day
3. Hormone health	Complements — doesn't replace — menopause care	Best benefit-risk under 60 or within 10 yrs of menopause	Legume- and soy-rich diets
4. Connection & intimacy	Body confidence may improve; some women report lower desire	Vaginal estrogen eases dryness & painful sex	Loved ones first; belong; right tribe
5. Sleep, stress & habits	May reduce alcohol cravings (early data)	Fewer night sweats → better sleep	Downshift daily; live with purpose

Questions to bring to your provider

1. Am I a good candidate based on my overall health — not just my weight?
2. Which medication and form (injection or pill) fits my goals, other medicines and budget?
3. How will we protect my muscle and bone?
4. How does this fit with my menopause care, hormone therapy and sexual health?
5. What's our long-term plan — and what happens if I stop?
6. What are my numbers — and which of the Top 5 factors should I work on first?

Thank you — Questions?

Make informed decisions about GLP-1s — and your longevity — together with your health care provider.

Robin Prugno, DO

Premier Women's Health – Oakdale OBGYN

This presentation is for education only and is not a substitute for individual medical advice.

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