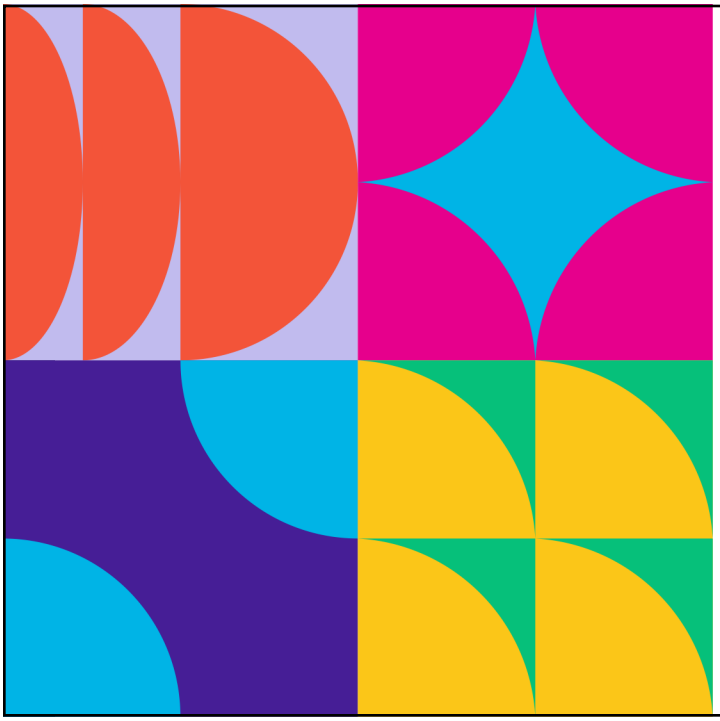


Myth vs. Reality: GLP-1s, CGM, and Diabetes & Weight Management

Tyler Marie Kiles, PharmD, MPH, BC-ADM

Description

Test your ability to separate fact from fiction in diabetes and weight management. Review patient cases and social-media-driven claims, including those related to GLP-1 therapies and CGM, and weigh in on whether they're evidence-based or hype. Gain practical approaches to deliver whole-patient support that improves outcomes, addresses misconceptions, and strengthens pharmacy trust and sustainability.

Meet the Faculty

Tyler Marie Kiles,
PharmD, MPH, BC-ADM

Clinical Associate Professor
The University of Texas at Austin
College of Pharmacy

Tyler Kiles

Tyler Marie Kiles, PharmD, MPH, BC-ADM earned her PharmD from the University of Houston College of Pharmacy and completed a PGY1 Community-Based Pharmacy Residency with Mercer University and Rite Aid, followed by an Academic Pharmacy Fellowship at the University of Houston.

Dr. Kiles also holds a Master of Public Health degree and is Board Certified in Advanced Diabetes Management. Her expertise includes community pharmacy, diabetes care, social determinants of health, and pharmacy education. She has practiced in community pharmacy and ambulatory care and currently teaches and mentors PharmD students in skills-based and interprofessional education.

Disclosures

- Tyler Kiles has no relevant financial relationships with ineligible companies to disclose.
- Tyler Kiles discloses that AI tools were utilized to generate case studies and visual content included in this presentation.
- Tyler Kiles discloses that the off-label use of medications will be discussed in this course.
- Brand names may be used as examples for educational purposes only. Their inclusion does not constitute endorsement, recommendation, or promotion of any specific product.

Funding for this course was provided by Cencora.

Learning Objectives

Upon completion of this activity, learners should be able to:

- Address three common patient questions or misconceptions related to diabetes and weight management.
- Describe how medications, devices, and lifestyle strategies impact diabetes and weight management.
- Prioritize at least one patient interaction or follow-up touchpoint to support diabetes or weight management therapies.
- Evaluate opportunities to promote whole-patient metabolic health through medication guidance, lifestyle strategies, and front-end products.
- Identify one approach to implement or strengthen a diabetes- or weight-focused service that improves outcomes and sustainability.

Background/Context

Diabetes and Weight Management

- 1 in 8 people in the United States has diabetes
- Obesity prevalence has nearly doubled over the past 30 years
- Even 5-10% weight loss can significantly improve:
  - A1C
  - Blood pressure
  - Lipid profiles

Misinformation is Widespread

- Social media disproportionately emphasizes:
  - Weight loss aesthetics (vs. metabolic health)
  - Quick fixes
  - Biohacking trends
- 55% of adults use social media to get health information at least occasionally
- 72% of adults report seeing weight loss/diet content on social media in the past month

ThoughtSpot | CEimpact

www.cdc.gov/diabetes/php/data-research/index.html
www.kff.org/public-opinion/kff-health-information-and-trust-tracking-poll-health-information-and-advice-on-social-media/

Misleading Marketing?

Products using GLP-1 terminology may contribute to patient confusion

ThoughtSpot | CEimpact

Today's Agenda

GLP-1s

Myth vs. Reality

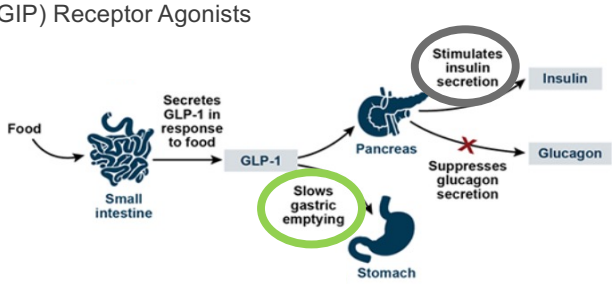
GLP-1s: Refresher

Glucagon-**L**ike **P**eptide-**1** (GLP-1) Receptor Agonists

Glucose-Dependent **I**nsulinotropic **P**olypeptide (GIP) Receptor Agonists

Mechanism of Action:

- Stimulate glucose-dependent insulin secretion
  - Low risk of hypoglycemia
- Slow gastric emptying
  - Induce satiety, suppress food intake



Side Effects:

- GI (e.g., nausea, diarrhea, constipation)

Holst, JJ. *Physiol Rev*. 2007;87:1409-1439

Summary of Products

Generic Name	Receptor Action	Brand Names	Route	Diabetes/Weight Loss
Exenatide	GLP-1	Byetta	Injectable	Type 2 Diabetes
Dulaglutide	GLP-1	Trulicity	Injectable	Type 2 Diabetes
Liraglutide	GLP-1	Victoza Saxenda	Injectable Injectable	Type 2 Diabetes Weight Loss
Semaglutide	GLP-1	Ozempic Rybelsus Wegovy	Injectable, Oral Oral Injectable, Oral	Type 2 Diabetes Type 2 Diabetes Weight Loss
Tirzepatide	GLP-1 + GIP	Mounjaro Zepbound	Injectable Injectable	Type 2 Diabetes Weight Loss
Orforglipron	GLP-1	Foundayo	Oral	Weight Loss
Retatrutide	GLP-1 + GIP + Glucagon	*Phase 3 Clinical Trials	Injectable	Type 2 Diabetes and Weight Loss

*Indications vary by product/formulation

FDA-approved prescribing information for referenced products; www.primetherapeutics.com/glp-1-pipeline-update-may-2026

Case: Mabel (42 Years Old)

Started injectable semaglutide 3 months ago for weight management.

- **Past medical history:**
  - Prediabetes
  - Hypertension
- **Current medications:**
  - Lisinopril 10 mg daily
  - Semaglutide 1 mg weekly

At today's visit, Mabel is excited to report that she has lost 18 pounds since starting therapy.

She says she feels more in control of her appetite and has been eating smaller portions without feeling deprived.

She has also started walking 3-4 times per week.

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Case: Mabel (42 Years Old)

During your conversation, she says:

"This medication is amazing - I feel like I've finally found the cure for my obesity.

Once I hit my goal weight, I can't wait to not worry about injecting this anymore, and I can probably get off of my blood pressure medication too!"

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

ThoughtSpot | CEimpact

Poll the Audience:
Patients can stop GLP-1 therapy once their goal weight is reached.

Myth? Or Reality?

15

Patients can stop GLP-1 therapy once their goal weight is reached.

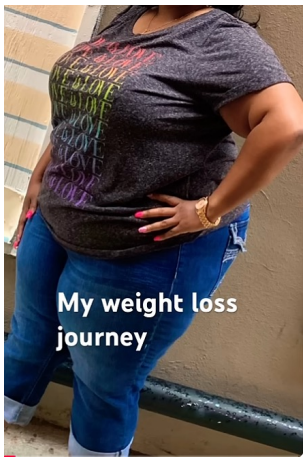
Myth? Or Reality?

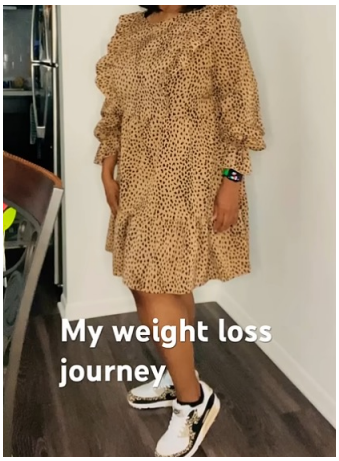
Do not edit
How to change the design

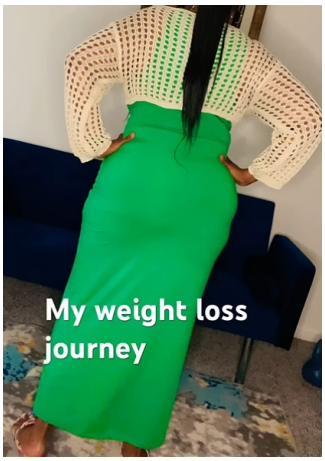
ⓘ The Slido app must be installed on every computer you're presenting from

slido

One Patient's Experience







www.YouTube.com

GLP-1s and Weight Loss

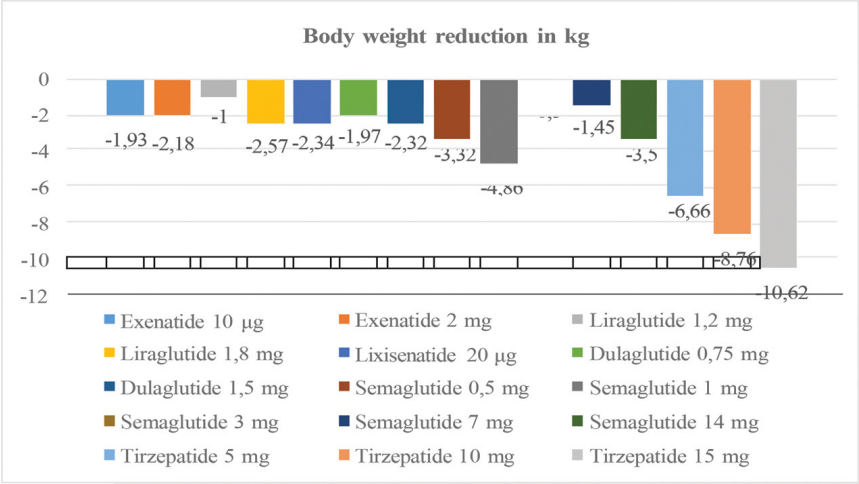


Figure 3. Comparison Between GLP-1 Receptor Agonists In Terms Of Weight Reduction

Petrova L, et al. *Pharmacia*. 2024;71:1-17.

Reality: Weight Regain

After 1 year of stopping a GLP-1, ~60% of weight loss is regained by most patients

- Regain starts **within weeks** of stopping

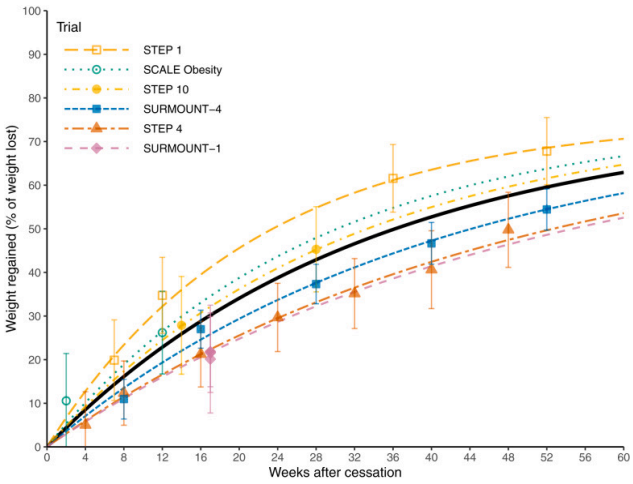
Outcomes vary based on:

- Lifestyle changes
- Duration of therapy
- Tapering vs. abrupt stop

However:

- ~1/3 of patients may maintain or continue losing weight at 6 months

Regain is common, but not inevitable



Budini B, et al. *EClinicalMedicine*. 2026;93:103796.

Reality: Body Composition Changes

Treatment with a GLP-1 results in loss of muscle mass *in addition to* fat

- ~25-40% of weight loss = lean mass

However:

- This is comparable to diet and bariatric surgery
- Higher **percent** lean mass after weight loss
- Muscle quality may improve (less fat infiltration)

Increased mobility

- Decreased weight on joints
- Less visceral fat

Strength may be maintained with adequate nutrient intake

Conte C, Hall KD, Klein S. *JAMA*. 2024;332(1):9–10.

Changes in Body Composition

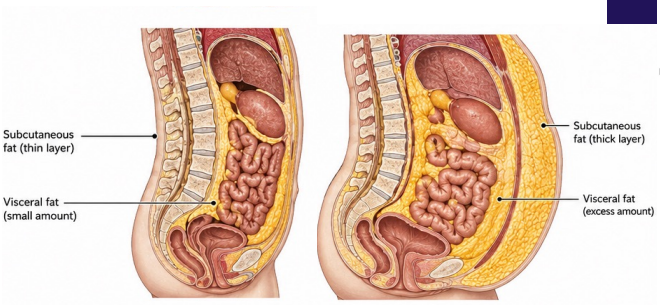
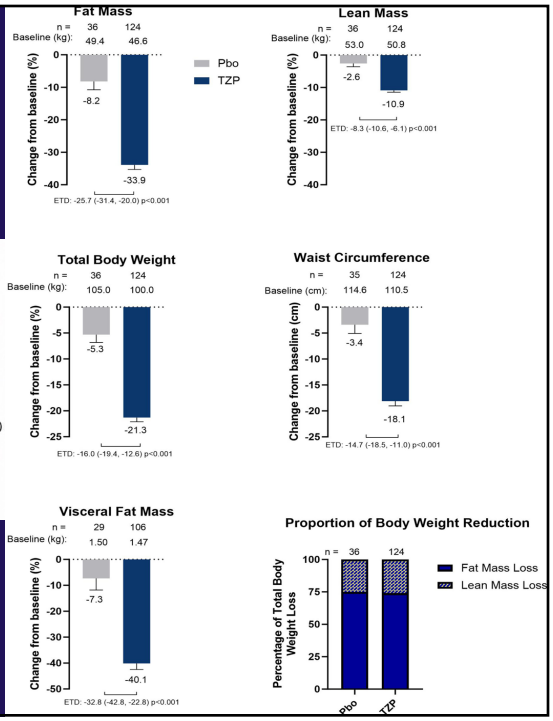


Image generated by ChatGPT, June 10, 2026, OpenAI, https://chat.openai.com/chat

Look M, Dunn JP, Kushner RF, et al. *Diabetes Obes Metab*. 2025;27(5):2720-2729.



Lifestyle Changes to Maintain Weight Loss and Retain Muscle

Diet

- Smaller portions, frequent meals
- Focus on protein and nutrients

Exercise

- Strength training

Key Points

- GLP-1s are a **tool** to manage diabetes and obesity (chronic diseases)
- Weight regain is common, but not inevitable
- Muscle loss occurs *in addition to* fat loss
- Results are modifiable with adherence to lifestyle changes

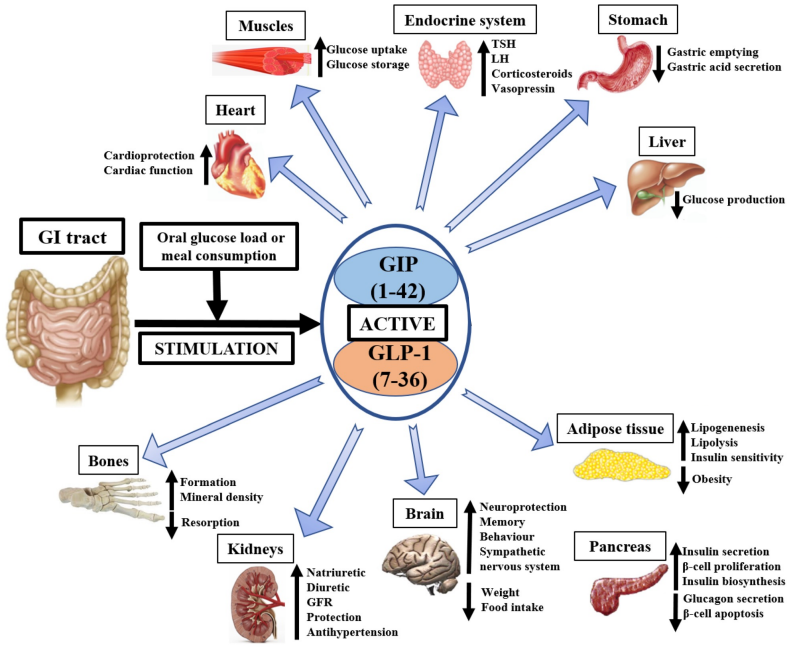
ThoughtSpot | CEimpact

Poll the Audience:
What conditions do patients ask about GLP-1s for?

What conditions do patients ask about GLP-1s for?

Conditions Patients May Ask About

Diabetes
Weight Management
Osteoarthritis
Fatty Liver Disease
Obstructive Sleep Apnea
Polycystic Ovary Syndrome (PCOS)
Alcohol Use Disorder
Cardiovascular Risk Reduction
Kidney Disease
Alzheimer's
Parkinson's



ThoughtSpot | CEimpact 27

Jonik S, et al. *Biology*. 2022;11(2):288.

Summary: GLP-1 Levels of Evidence

Well-Established:
- Type 2 diabetes
- Weight management
- Cardiovascular risk reduction

Guideline-Supported
- Kidney protection
- Liver disease (MASLD/MASH)
- Sleep apnea

Emerging Evidence
- Addiction/craving disorders
- Neurodegenerative disorders
- Polycystic ovary syndrome (PCOS)

*Indications vary by product/formulation; examples summarized for educational purposes.
MASLD: Metabolic dysfunction-associated steatotic liver disease; MASH: Metabolic dysfunction-associated steatohepatitis
American Diabetes Association. *Diabetes Care*. 2026; FDA-approved prescribing information; www.pharmacytimes.com/view/five-unexpected-new-uses-for-glp-1-receptor-agonists

ThoughtSpot | CEimpact 28

Summary of Products

Generic Name	Receptor Action	Brand Names	Route	Diabetes/Weight Loss	Other FDA-approved Indications
Exenatide	GLP-1	Byetta	Injectable	Type 2 Diabetes	--
Dulaglutide	GLP-1	Trulicity	Injectable	Type 2 Diabetes	--
Liraglutide	GLP-1	Victoza Saxenda	Injectable Injectable	Type 2 Diabetes Weight Loss	
Semaglutide	GLP-1	Ozempic Rybelsus Wegovy	Injectable, Oral Oral Injectable, Oral	Type 2 Diabetes Type 2 Diabetes Weight Loss	CKD, diabetic nephropathy MASH
Tirzepatide	GLP-1 + GIP	Mounjaro Zepbound	Injectable Injectable	Type 2 Diabetes Weight Loss	Obstructive Sleep Apnea (OSA)
Orforglipron	GLP-1	Foundayo	Oral	Weight Loss	
Retatrutide	GLP-1 + GIP + Glucagon	*Phase 3 Clinical Trials	Injectable	Type 2 Diabetes and Weight Loss	

*Indications vary by product/formulation

CKD: chronic kidney disease
FDA-approved prescribing information for referenced products; www.primetherapeutics.com/glp-1-pipeline-update-may-2026

Case: Marcus (35 Years Old)

Comes into your pharmacy to pick up his refill of injectable semaglutide for weight management.

He has been on therapy for 2 months and recently titrated to 0.5 mg weekly.

- **Past medical history:**
  - Obesity
  - Dyslipidemia
- **Current medications:**
  - Semaglutide 0.5 mg weekly

During counseling, Marcus mentions that he's been following several wellness influencers on social media who talk about "microdosing" GLP-1 medications.

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Case: Marcus (35 Years Old)

He says:

"They say you don't actually need the full dose to get the benefits - just a tiny amount can control your appetite without the side effects. I was thinking about stretching my medication by taking smaller doses more often, so it lasts longer and I avoid nausea."

When you ask what he means by smaller doses, he explains that he has been considering dialing his injection pen to a lower, non-prescribed dose and taking it every few days instead of following the weekly schedule. He adds:

"It seems like a smarter way to do it - same effect, fewer side effects, and I save money."

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

ThoughtSpot | CEimpact

Poll the Audience:

Microdosing GLP-1s provides the same benefits as standard dosing with fewer side effects.

Myth? Or Reality?

Microdosing GLP-1s provides the same benefits as standard dosing with fewer side effects.

Myth? Or Reality?

Reality: Microdosing

"Microdosing" is not a formal medical term

- Small dose weekly?
- Smaller dose every other week?
- Alternate weeks on and off?

Lack of data

- Only FDA-approved doses have been studied for efficacy and safety
  - Significant weight loss occurred at full therapeutic doses, not lower doses
  - Unknown if lower doses have any benefit
- No major clinical trials have yet investigated whether doses lower than FDA-approved starting doses are effective or safe
  - Phase 3 clinical trials are ongoing

Trainer N. *J Am Assoc Nurse Pract.* 2026 March.

Reality: Microdosing Risks vs. Benefits

Potential Risks

User Error

- Inconsistent dosing
- Risk of contamination (e.g., needle reuse, extra punctures)
- Pen storage/expiration

Undertreatment

- Inconsistent blood glucose control
- Management of other obesity-related health conditions

Weight regain upon discontinuation

Potential Benefits

Anecdotal evidence suggests that lower doses may reduce:

- "Food noise" (cravings, intrusive/persistent thoughts about food)
- Side effects (e.g., nausea/vomiting)
- Cost?

ThoughtSpot | CEimpact

Trainer N. *J Am Assoc Nurse Pract*. 2026 March.

Individualized Clinical Decision-Making

"Off-label" dosing may be considered for patients who:

- Are highly sensitive to side effects
- Achieve metabolic improvements at lower levels
- Are transitioning off the medication
- Are facing medication shortages
- Require gradual reintroduction (e.g., planned surgery)

ThoughtSpot | CEimpact 36

Komé AM, et al. *Diabetes Care*. 2025;48(3):e25-e27.

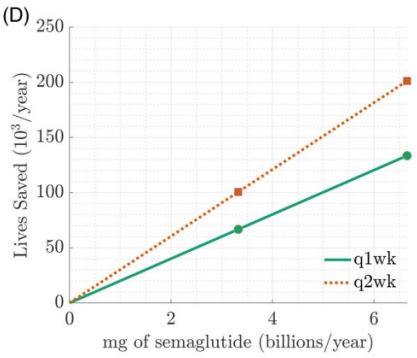
Hypothetically…

Cenzig 2025:

- Mathematical modeling and simulation of semaglutide and tirzepatide to investigate dosing regimens which have **not yet been studied clinically**

Findings:

- Every 1- to 2-week dosing change maintains ~75% of weight loss
- Increase dose + frequency, then ~100% weight loss maintained
- Compared with standard once-weekly dosing, costs can be halved and weight loss maintained
- These cost-saving results have implications for patients, physicians, insurers, and governments



Cengiz A, Wu CC, Lawley SD. *Diabetes Obes Metab*. 2025;27(4):2251-2258.

Key Points

- Patients should talk with their provider and weigh risks vs. benefits
- Lifestyle changes may be just as effective for patients who are not trying to lose significant weight
- Side effects with GLP-1s generally improve over time

CGMs

Myth vs. Reality

ThoughtSpot | CEimpact

Continuous Glucose Monitors (CGMs): Refresher

- Wearable device that tracks blood glucose levels in real time
- Tiny sensor inserted under the skin sends data to smartphone or receiver
- Eliminates the need for frequent fingersticks
- Provides trends and alerts for high/low levels

Image generated by ChatGPT, July 1, 2026, OpenAI, https://chat.openai.com/chat

American Diabetes Association (ADA) Standards of Care 2026

"Use of CGM is recommended at diabetes onset and anytime thereafter for children, adolescents, and adults with diabetes who are on insulin therapy, on noninsulin therapies that can cause hypoglycemia, and on any diabetes treatment where CGM helps in management."

(ADA Standards of Care 2026, Recommendation 7.15)

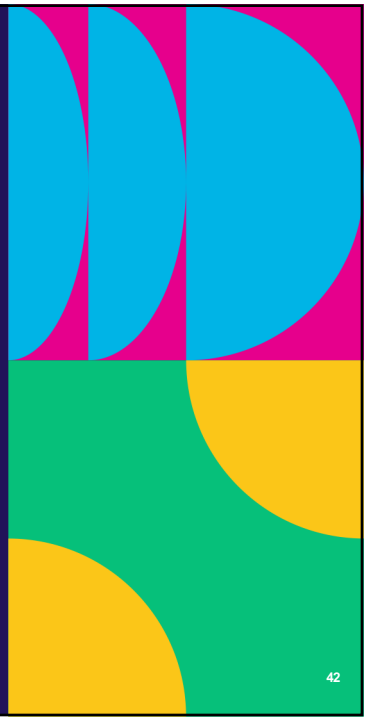
American Diabetes Association. *Diabetes Care*. 2026.

ThoughtSpot | CEimpact

Poll the Audience:

CGMs are a painless and effortless way to manage blood glucose and lose weight.

Myth? Or Reality?



Do not edit
How to change the design

CGMs are a painless and effortless way to manage blood glucose and lose weight.

Myth? Or Reality?

ⓘ The Slido app must be installed on every computer you're presenting from

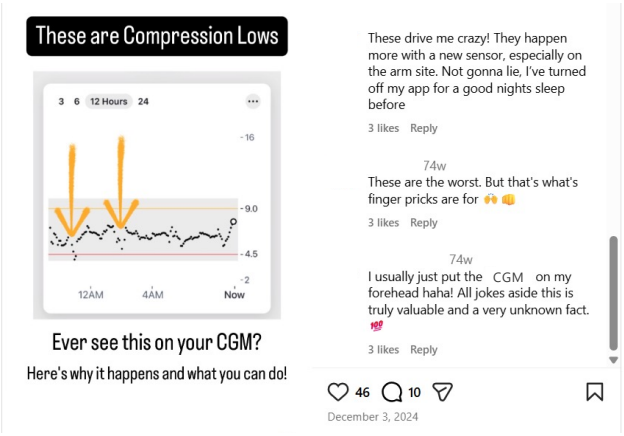
slido

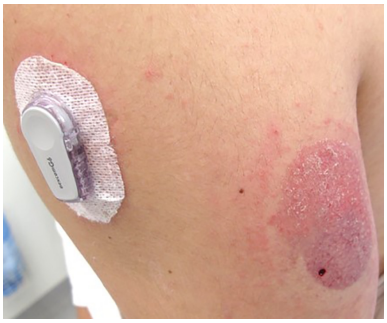
Reality

- CGMs require set up, calibration, orientation
  - Intermittent scanning required for some
  - Continuous data, can be overwhelming to interpret
- Alarms (highs/lows) can be disruptive
  - Compression lows – falsely low readings from lying on sensor when sleeping
- ~14-26% of sensors may not last the full number of days advertised
  - Call manufacturer for replacement
- Appropriate daily wear is largely painless, but may cause skin irritation

Alva S, Bhargava A, Bode B, et al. *J Diabetes Sci Technol.* 2025 Jul: 1122-1130.

Social Media/Patient Experience





www.instagram.com
Svedman C, Ulriksdotter J, Lejding T, et al. *Contact Dermatitis*. 2021 Jun:439-446.

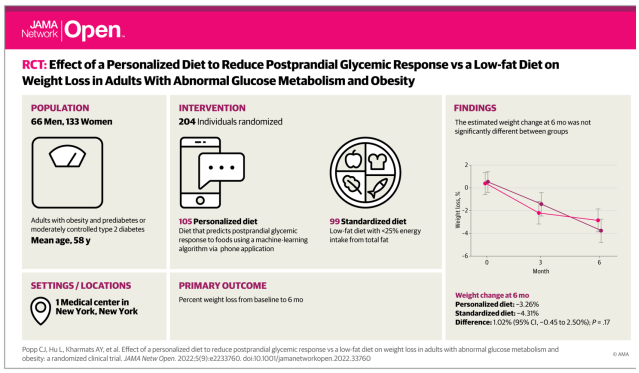
CGMs for Diabetes Management vs. Weight Loss

Diabetes

Effects on A1C for Adults with Type 1 Diabetes

	CGM	Fingersticks
Baseline	8.7%	8.5%
24 Weeks	7.9%	8.3%

Weight Loss



Leelarathna L, Evans ML, Neupane S, et al. *N Engl J Med*. 2022;387(16):1477-1487.
Popp CJ, Hu L, Kharmats AY, et al. *JAMA Netw Open*. 2022;5(9):e2233760.

Case: Jordan (29 Years Old)

Healthy graduate student

- No history of diabetes or prediabetes

After seeing influencers online discuss "glucose hacks," he purchases an over-the-counter CGM to "optimize" his health.

Over the next several weeks, Jordan becomes increasingly focused on keeping his glucose graph as "flat" as possible. He:

- Avoids fruit because it causes brief glucose rises
- Skips meals before workouts
- Drinks apple cider vinegar before eating
- Feels guilty whenever his glucose rises above 120 mg/dL after meals

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Case: Jordan (29 Years Old)

Despite Jordan's concerns, he has:

- An A1C of 5.1%
- Normal fasting glucose
- No metabolic disease

He reports:

"I'm trying to eliminate all glucose spikes, because flatter curves mean better long-term health."

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

ThoughtSpot | CEimpact

Poll the Audience:

The flatter your glucose curve is, the healthier you are.

Myth? Or Reality?

The flatter your glucose curve is, the healthier you are.

Myth? Or Reality?

ⓘ The Slido app must be installed on every computer you're presenting from

slido

Reality: CGM Data

For patients *without* diabetes, there are no standard guidelines about what is a “good” or “bad” glucose peak

Glucose monitoring may help identify specific meals or meal sizes that produce extremes

- Diet modification may help lose weight or improve well-being

Risks:

- Data overload may be confusing/unhelpful
- Can cause more food anxiety

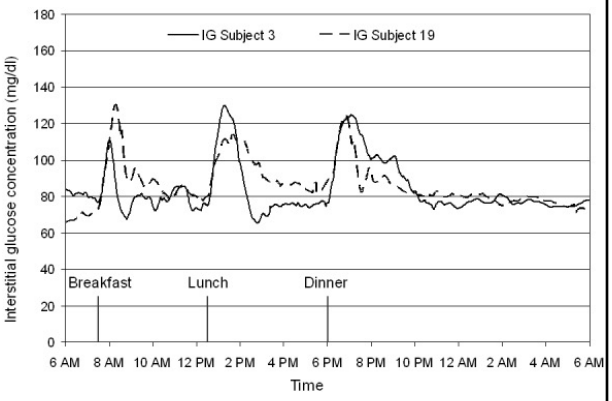


Figure 1. Representative continuous interstitial fluid glucose traces obtained in study subjects 3 and 19 under everyday life conditions.

Freckmann G, Hagenlocher S, Baumstark A, et al. *J Diabetes Sci Technol*. 2007;1(5):695-703.

Case: Antoinette (54 Years Old)

Has type 2 diabetes and recently started using a CGM after years of checking her blood sugar with fingersticks.

She is excited about seeing her glucose trends in real time and has been checking the app frequently throughout the day.

One afternoon, Antoinette feels shaky and decides to compare her readings:

- Her CGM shows: **65 mg/dL**
- Her fingerstick meter shows: **85 mg/dL**

Concerned that one of the devices is wrong, she calls your pharmacy and asks:

“What should I do?”

Modified text generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

ThoughtSpot | CEimpact

Poll the Audience:

CGM readings are more accurate than fingerstick readings.

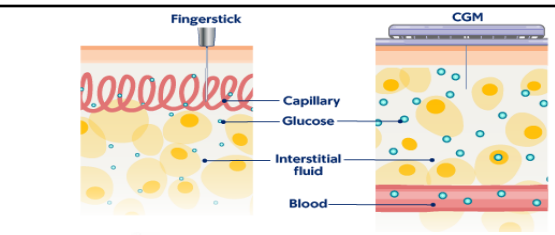
Myth? Or Reality?

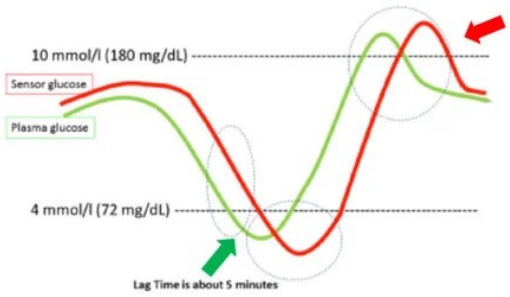
CGM readings are more accurate than fingerstick readings.

Myth? Or Reality?

ⓘ The Slido app must be installed on every computer you're presenting from

slido





If values are falling rapidly, the blood glucose value might initially be lower than the sensor reading (see diagram)
If the values are rising rapidly the blood glucose value might be higher than the sensor reading **but** then the sensor reading will go higher than the blood glucose value (see diagram)

www.mskcc.org/cancer-care/patient-education/about-your-continuous-glucose-monitor-cgm
Soni, A., Wright, N., Agwu, JC., et al. *Arch Dis Child Educ Pract Ed*. 2022 107(3):edpract-2020-321190.

Key Points

- CGMs are just a tool – they must be used in the context of lab results and other signs/symptoms
- Fingersticks are considered “gold standard” for blood glucose accuracy
- If symptoms do not match the CGM reading, trust the fingerstick
- Trust the CGM for monitoring trends

Pharmacy Front End and Service Opportunities

How can pharmacy teams support patients in diabetes and weight management?

GLP-1 “Starter Kits”

- Protein supplements
- Electrolyte packets
- Fiber
- OTC products for nausea/constipation
- Meal prep guides

Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Nutrition/Protein Optimization

- Pharmacist-approved protein meal/snack selections
- GLP-1 or CGM-specific nutrition consultations
  - General recommendation for muscle prevention during weight loss:
    - 1.2-1.6 grams of protein per kilogram of body weight
- Partnerships with local businesses and/or dietitians

Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Volek JS, Kackley ML, Buga A. *Curr Nutr Rep.* (2024) 13:422–43.

Weight Loss Corner

- Exercise supplies
- Weight management consults
- Scales, body fat analyzer
- Partnerships with local gyms/personal trainers
- Supplements

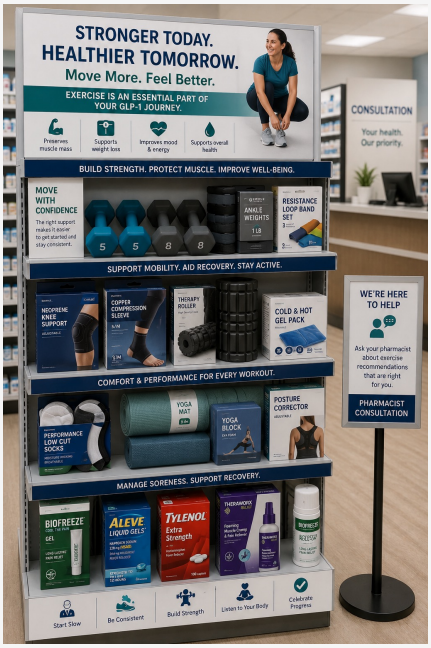


Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

Aesthetic/Wellness-Adjacent Products

- Hair growth support
- Skin products
- Partnerships with local aestheticians

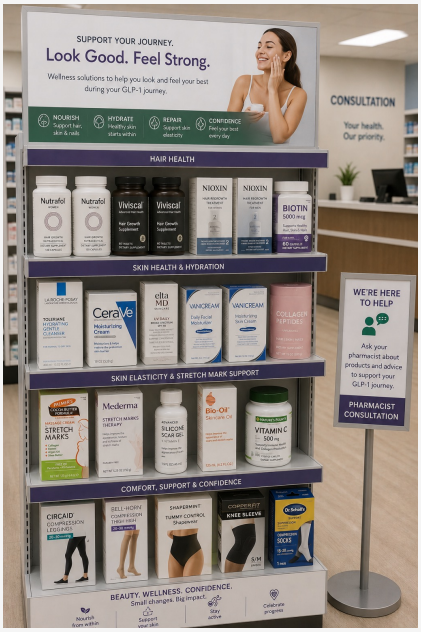


Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

CGMs and Accessories

- FDA-approved CGMs for OTC use
- Products to **improve adhesion**
  - Alcohol swabs
  - Adhesive barrier products/ skin prep products (e.g., Skin-Tac)
  - CGM covers
- Products to **reduce irritation**
  - Barrier films/patches
  - Steroid nasal sprays
  - Adhesive removers

Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat
Paret, M., Barash, G. & Rachmiel, M. *Acta Diabetol* 57, 419–424 (2020).

Medicare GLP-1 Bridge Program (Jul 1, 2026 – Dec 31, 2027)

- What is it?
  - Expansion of affordable access to *certain* weight loss medications for *eligible* Medicare beneficiaries
- Pharmacy's role:
  - Help determine patient eligibility (for patients enrolled in Medicare Part D where GLP-1s are not covered)
  - Communicate with providers about prior authorizations
  - Anticipate access and inventory questions (applies to Foundayo, Wegovy, Zepbound KwikPen)
- Opportunities for **older adults**
  - Balanced nutrition
  - Adequate protein intake
  - Strength-building exercise
  - Regular medical monitoring

Learn More at CMS.gov

Innovative Pharmacy Services

- Pharmacy support and coaching programs (e.g., "metabolic health membership")
  - Injection training
  - Side effect management
  - Nutrition or CGM coaching
  - Monthly check-ins
  - Weight/circumference/body composition scans
  - Discounts on front end bundles
- CGM remote patient monitoring (RPM)
- Hypoglycemia (glucagon) education
- Collaborative practice agreements

Image generated by ChatGPT, May 1, 2026, OpenAI, https://chat.openai.com/chat

ThoughtSpot | CEimpact

Discuss with your neighbors

How can you apply what you've learned?

Key Takeaways

- Pharmacies must become a reliable source of information about GLP-1s and CGMs for type 2 diabetes and weight loss amid social media misinformation
- Pharmacy teams can impact the efficacy and sustainability of diabetes management and weight loss through optimizing appropriate use of medications, devices, and lifestyle strategies
- There are many opportunities for clinical and front-end engagement for patients taking GLP-1s and/or using CGMs for diabetes management and weight loss

Questions?