

Addressing Obesity in Diabetes: Why Weight? (Holistic Management of Diabetes)

Carol H. Wysham, MD
Clinical Professor of Medicine
University of Washington School of Medicine
Clinical Endocrinologist
Spokane, WA

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Disclosure

Advisory Board: Abbott; Eli Lilly; MannKind; Novo Nordisk

Consultant: Eli Lilly; Novo Nordisk

Research Grant: AbbVie; Bayer Pharmaceuticals; Eli Lilly; Novo Nordisk

Speaker's Bureau: Abbott; Eli Lilly; MannKind; Novo Nordisk

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Definition of Holistic (Oxford Language Dictionary)



Characterized by the belief that the parts of something are **interconnected** and can be explained only by reference to the whole.



Characterized by the treatment of the **whole person**, taking into account mental and social factors, rather than just the symptoms of an illness.



In essence, holistic means seeing and treating the **whole person** — mind, body, and social context — as interconnected.

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GLOBAL PREVALENCE OF DIABETES MELLITUS

Map 1. Number of people with diabetes worldwide and per IDF Region in 2021–2045 (20–79 years)

Region	2021	2030	2045	% Increase
WORLD	537 million	643 million	783 million	46%
NORTH AMERICA & CARIBBEAN (NAC)	51 million	57 million	63 million	24%
EUROPE (EUR)	61 million	67 million	69 million	13%
WESTERN PACIFIC (WP)	206 million	238 million	260 million	27%



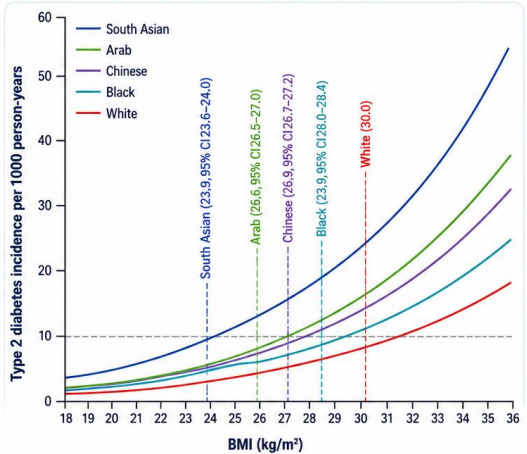
Region	2021	2030	2045	% Increase
SOUTH & CENTRAL AMERICA (SCA)	40 million	49 million	61 million	50%
AFRICA (AFR)	24 million	33 million	55 million	134%
MIDDLE EAST & NORTH AFRICA (MENA)	73 million	95 million	136 million	87%
SOUTH-EAST ASIA (SEA)	90 million	113 million	152 million	68%



International Diabetes Federation Atlas
10th edition 2021



RELATIONSHIP BETWEEN BMI AND DIABETES MELLITUS IN DIFFERENT POPULATIONS



BMI cutoffs (kg/m²) in minority ethnic populations in England equivalent to a BMI cutoff of 30.0 kg/m² in White populations for type 2 diabetes incidence.



DeFronzo RA, et al. *Nature Reviews* 2015, Caleyachetty. *Lancet Diab Endocrinol.* 2021

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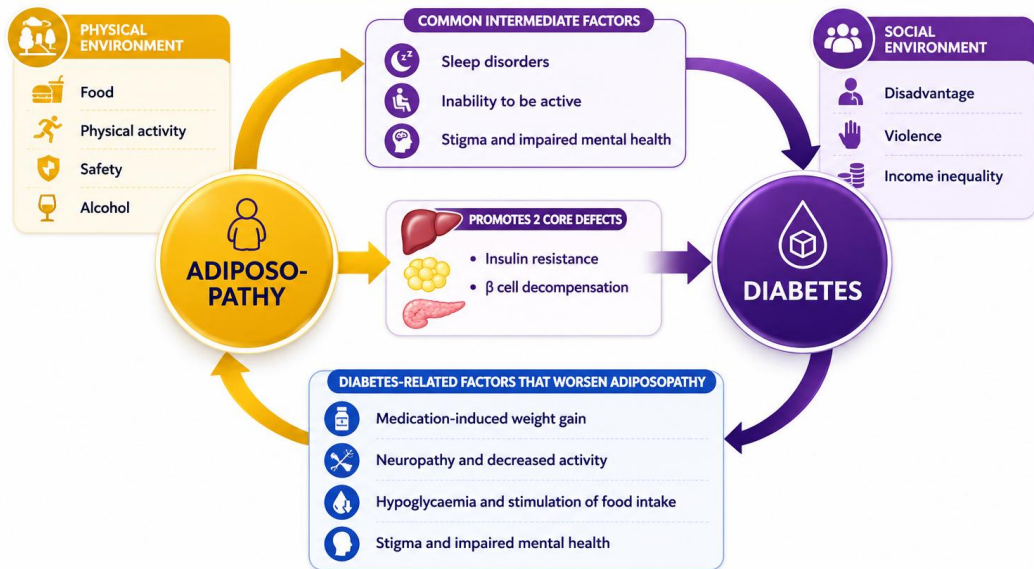
What Is Driving Adiposity?



Sattar N, et al. *Lancet Diabetes Endocrinol.* Published online 11/29/2022.
[https://doi.org/10.1016/S2213\(22\)00317-5](https://doi.org/10.1016/S2213(22)00317-5)

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Holistic View of Interplay between Obesity (Adiposopathy) and Diabetes: Synergistic and Syndemic



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Long-term goals for our patients with type 2 diabetes



1 Prevent sequelae of micro- and macrovascular complications of diabetes

Focus on optimal control of key risk factors:



A1c
(Blood Glucose)



BP
(Blood Pressure)



Cholesterol
(Lipid Management)



2 Address social and psychological impact of diabetes and its treatment

Holistic care includes emotional well-being, social support, and individualized treatment that fits the patient's life.

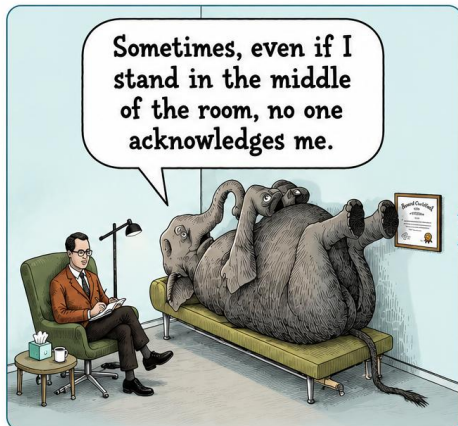


Our goal: Help patients live longer, healthier lives – **free from complications** and empowered in body and mind.



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What else are we missing?



Adiposity

A critical piece we cannot overlook



Is a major risk factor for many of the **traditional** and **nontraditional** and complications of diabetes



Is a major risk factor for many of the **comorbidities** that affect people with diabetes



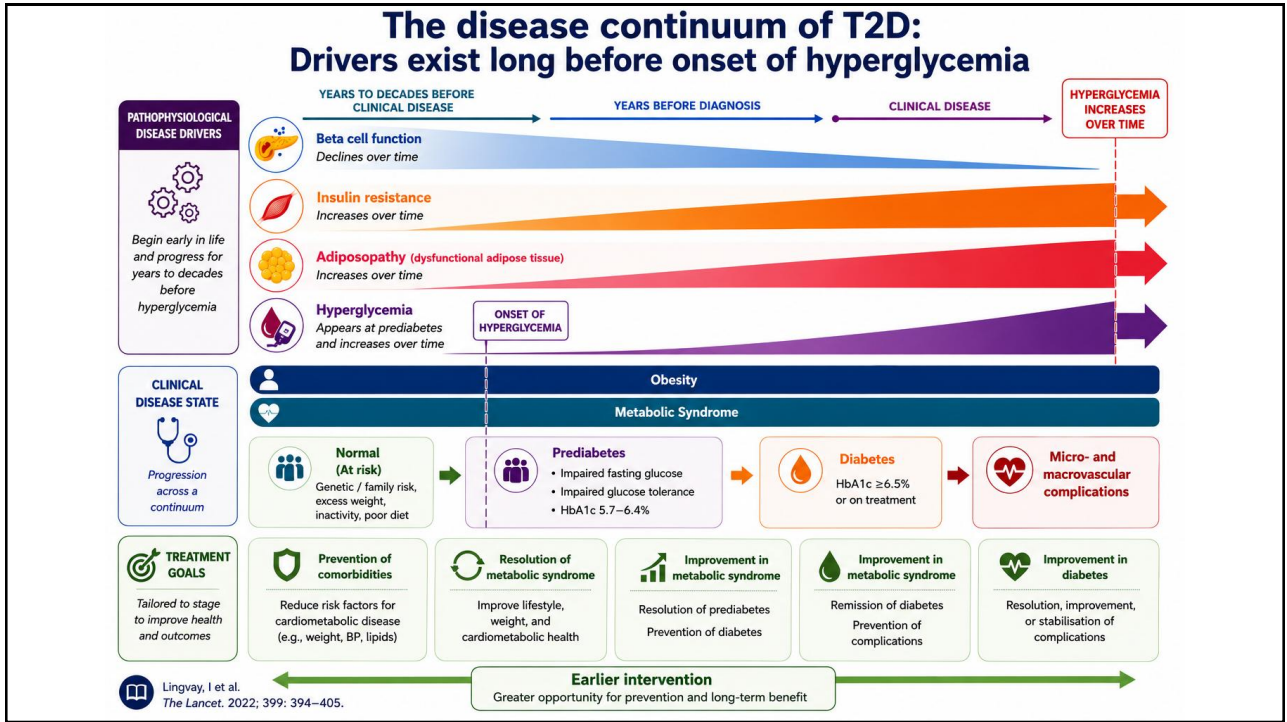
Has major **social** and **psychological impact** on our patients



The Takeaway: Addressing adiposity is essential for improving health outcomes, quality of life, and overall well-being in people with type 2 diabetes.



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Type 2 diabetes is only one of many conditions related to obesity

Obesity is a chronic, relapsing, multifactorial disease that is associated with numerous complications and a wide range of related diseases.¹⁻³

Obesity Complications*

- OA (knee, hip)
- OSA
- Obesity hypoventilation syndrome
- Lymphedema
- Stress urinary incontinence
- GERD
- Prediabetes and metabolic syndrome
- MASLD
- Obesity glomerulopathy, CKD
- HFpEF
- ASCVD
- Thromboembolism
- Idiopathic intracranial hypertension
- Disability limiting activities of daily living

Obesity-Related Diseases*

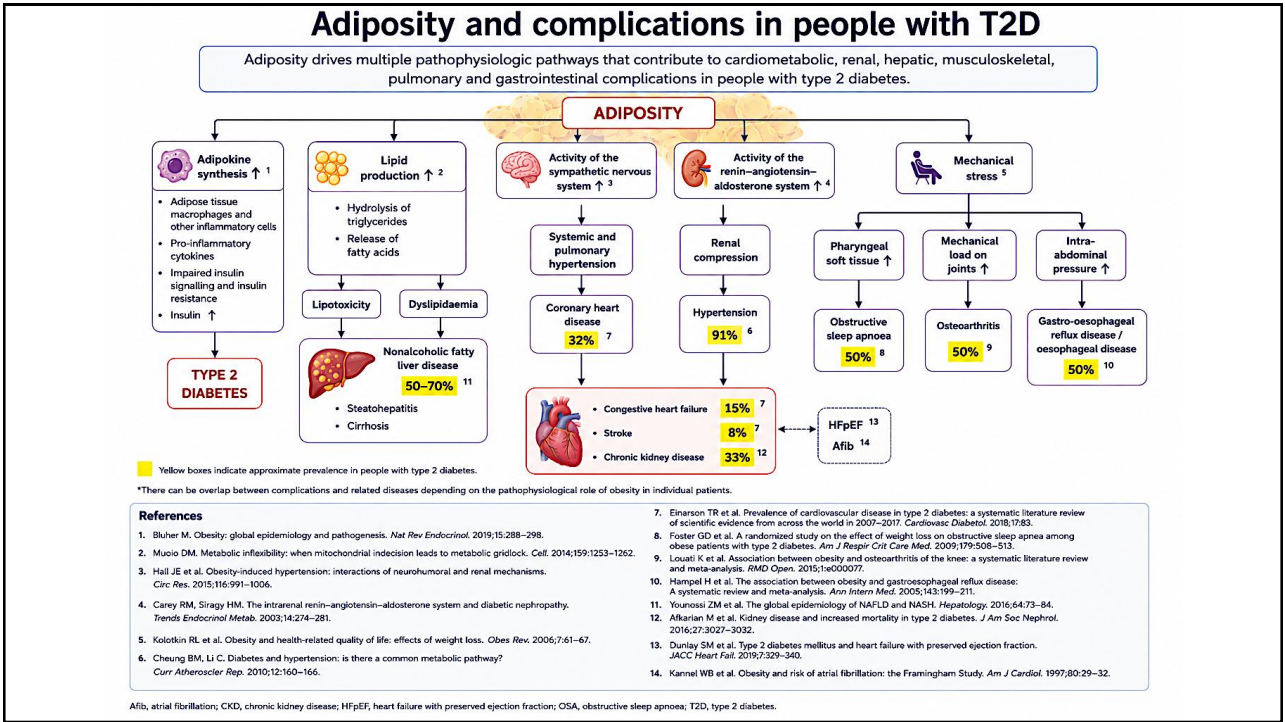
- T2D
- MASH
- HFrEF
- Atrial fibrillation
- Certain cancers
- Cholelithiasis, cholecystitis
- Asthma
- Depression, anxiety
- Internalized weight bias
- Stigmatization
- Disordered eating
- Cognitive decline, dementia
- Inflammatory skin diseases
- Intertrigo

*There can be overlap between complications and related diseases depending on the pathophysiological role of obesity in individual patients. See Box A for definitions.

References:

1. Rubino D, et al. Joint international consensus statement for ending stigma of obesity. *Nat Med*. 2020;26:485-497.
2. Mechanick JL, et al. Clinical practice guidelines for the prevention, diagnosis, and treatment of obesity. *Endocr Pract*. 2020;26(Suppl 1):1-107.
3. American Diabetes Association Professional Practice Committee. Standards of Care in Diabetes—2024. *Diabetes Care*. 2024;47(Suppl 1):S145-S158.

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Obesity stigma, bias and discrimination.



• There exists **consistent weight bias and stigmatization** exist in employment, health care, schools, the media, and interpersonal relationships.



• For overweight and obese youth, weight stigmatization translates into **pervasive victimization, teasing, and bullying.**



• Results in **depression, anxiety, low self-esteem, body dissatisfaction, suicidal ideation, poor academic performance, lower physical activity, maladaptive eating behaviors, and avoidance of health care.**

Stigma shows up in many ways...



Stigma hurts. Empathy heals.
Let's build a more inclusive and supportive world.



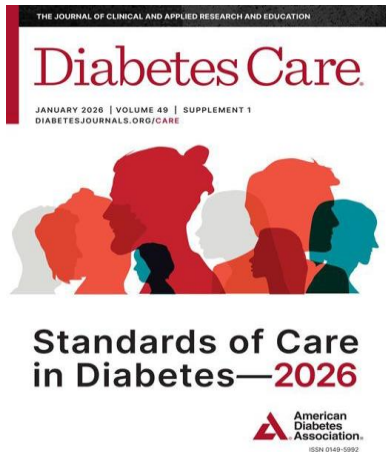
Addressing weight stigma is essential to improving **mental health, quality of life, and outcomes** for individuals with obesity.



12 | Puhl R & King K: Best Pract Res Clin Endocrinol Metab 2013 Apr;27(2):117-27.

But What About Type 1 Diabetes?

The prevalence of overweight (30–40%) and obesity (15–30%) for people with type 1 diabetes is comparable to that for the general adult population

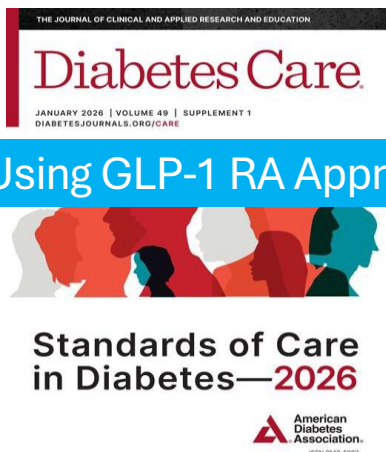


A diagnosis of type 1 diabetes does not preclude also having features classically associated with type 2 diabetes (e.g., insulin resistance, obesity, and other metabolic abnormalities), and until more precise subsets are used in clinical practice, it may be appropriate to categorize such an individual as having features of both type 1 and type 2 diabetes to facilitate access to glucose monitoring systems and appropriate treatment (e.g., glucagon-like peptide 1 receptor agonist [GLP-1 RA] or sodium–glucose cotransporter 2 [SGLT2] inhibitor therapies for potential weight and other cardiometabolic benefits).

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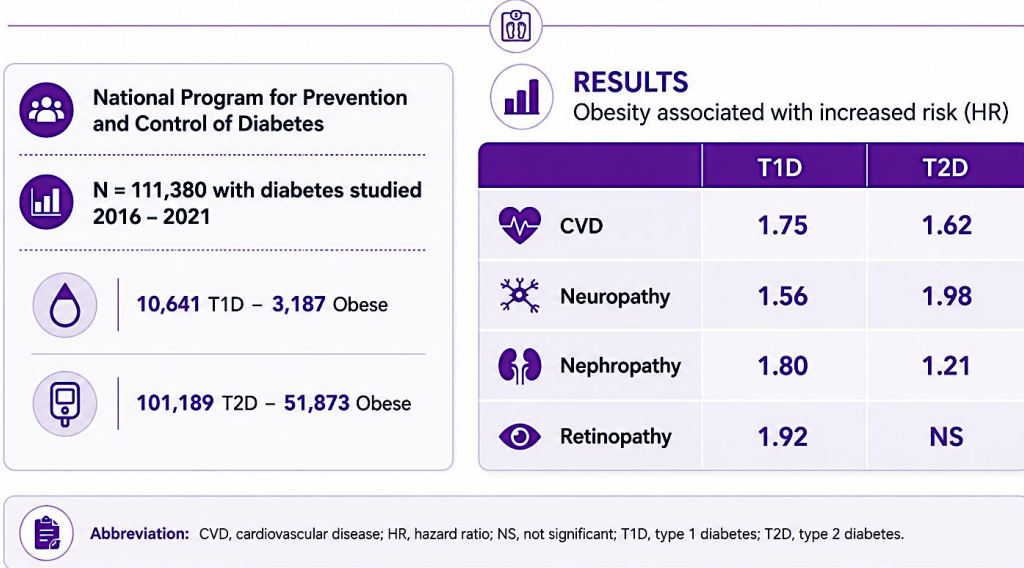
A diagnosis of type 1 diabetes does not preclude also having features classically associated with type 2 diabetes (e.g., insulin resistance, obesity, and other metabolic abnormalities), and until more

Using GLP-1 RA Approved for Weight Loss Is Not Off-label for T1D

having features of both type 1 and type 2 diabetes to facilitate access to glucose monitoring systems and appropriate treatment (e.g., glucagon-like peptide 1 receptor agonist [GLP-1 RA] or sodium–glucose cotransporter 2 [SGLT2] inhibitor therapies for potential weight and other cardiometabolic benefits).

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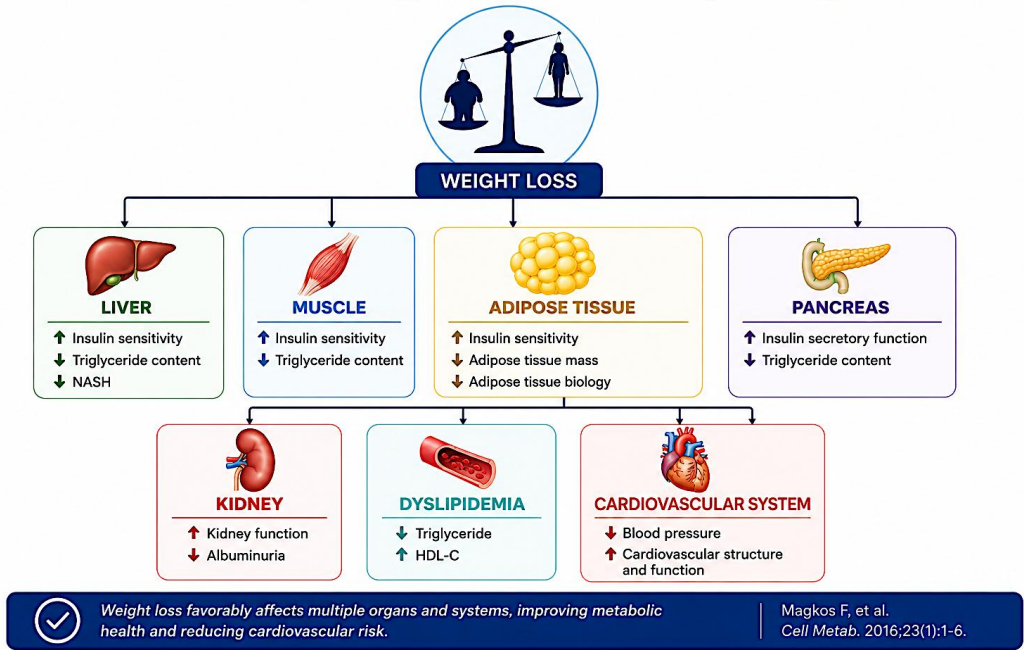
Obesity is associated with increased risk for traditional complications in type 1 and type 2 diabetes



Moosaie F et al. *Prim Care Diabetes* 2022;16:101402.

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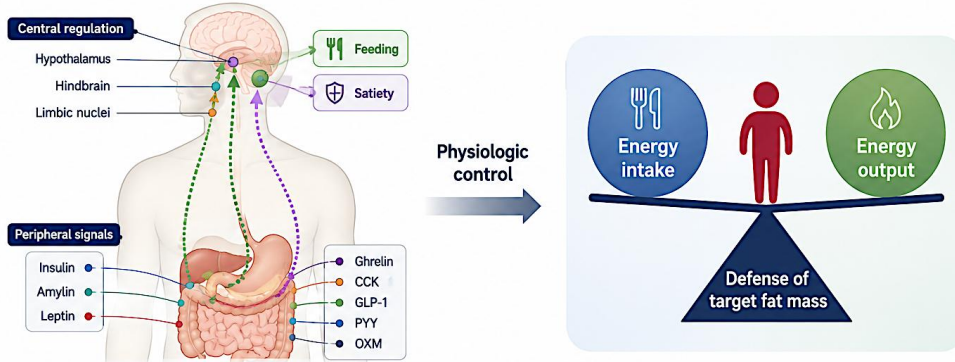
Effects of Weight Loss on Multiple Organs



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Body fat mass is tightly regulated by an entero-CNS axis

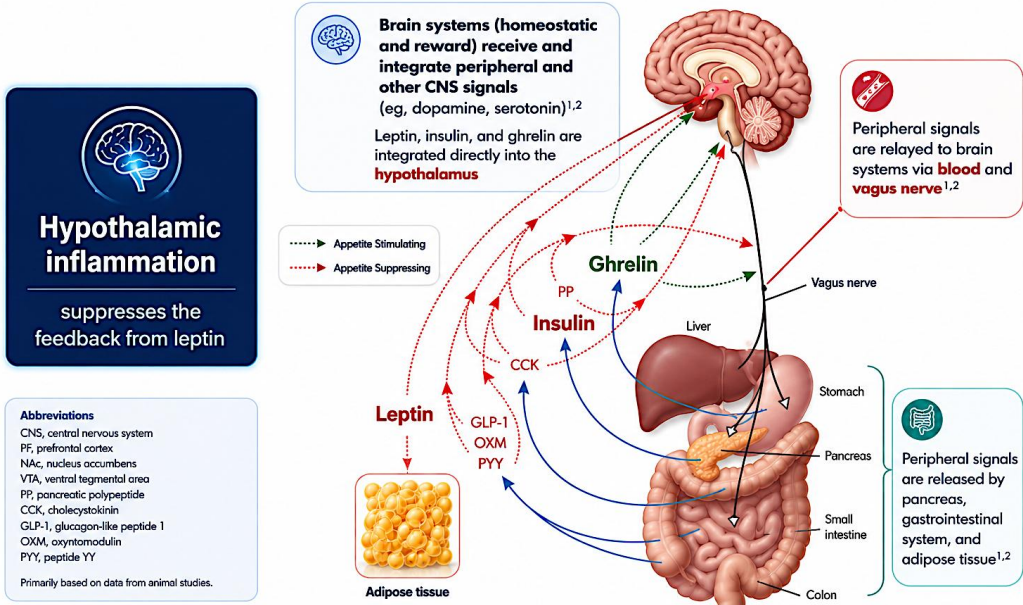
The hypothalamus, hindbrain and limbic nuclei regulate appetitive drives and thermogenic energy expenditure



>80% of obesity-associated genes are selectively expressed in the nervous system

Adapted from Morton GJ et al., *Nat Rev Neurosci.* 2014;15:367–378.

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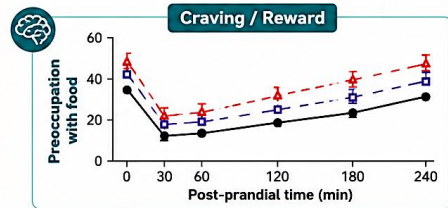
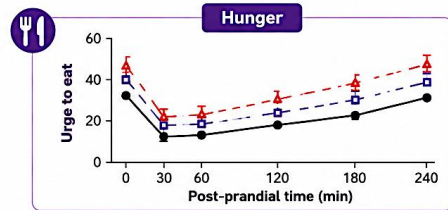
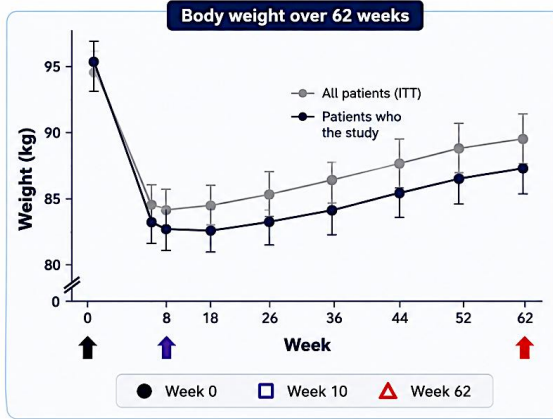


1. Yu JH et al. *Diabetes Metab J.* 2012;36(6):391-398.
 2. Mendieta-Zerón H et al. *Gen Comp Endocrinol.* 2008;155:481-495.

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Why is weight usually regained after diet?

Sustained physiological adaptations drive hunger and food preoccupation, promoting weight regain



After initial weight loss, weight is progressively regained over time.



Hunger increases significantly after weight loss and over time.



Craving and preoccupation with food remain elevated, driving weight regain.

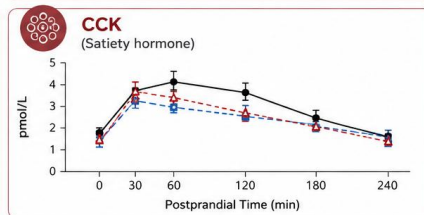
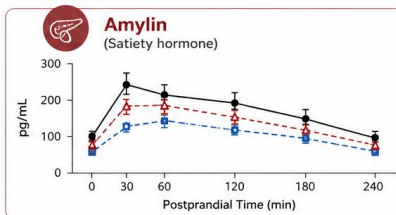
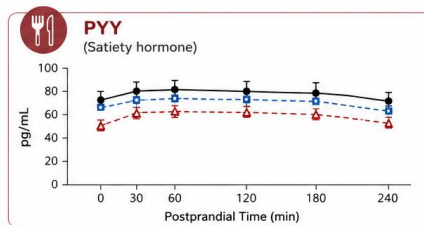
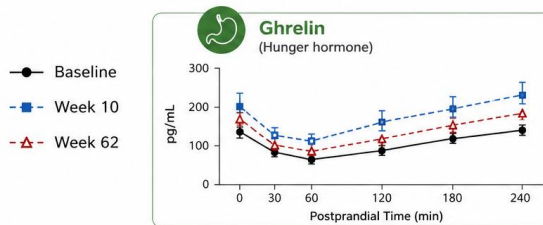
Sumithran P et al., *NEJM* 2011;365:1597-1604.

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Gut hormones persistently oppose restriction diet-induced weight loss



After an initial drop, levels of gut hormones that promote appetite (ghrelin, PYY, amylin, CCK) rise above baseline and remain elevated 62 weeks after a restriction diet, promoting weight regain.



Key takeaway:

Restriction diets trigger sustained hormonal adaptations that increase hunger and reduce satiety, driving food-seeking behavior and contributing to weight regain.

Sumithran P et al., *NEJM* 2011;365:1597-1604.

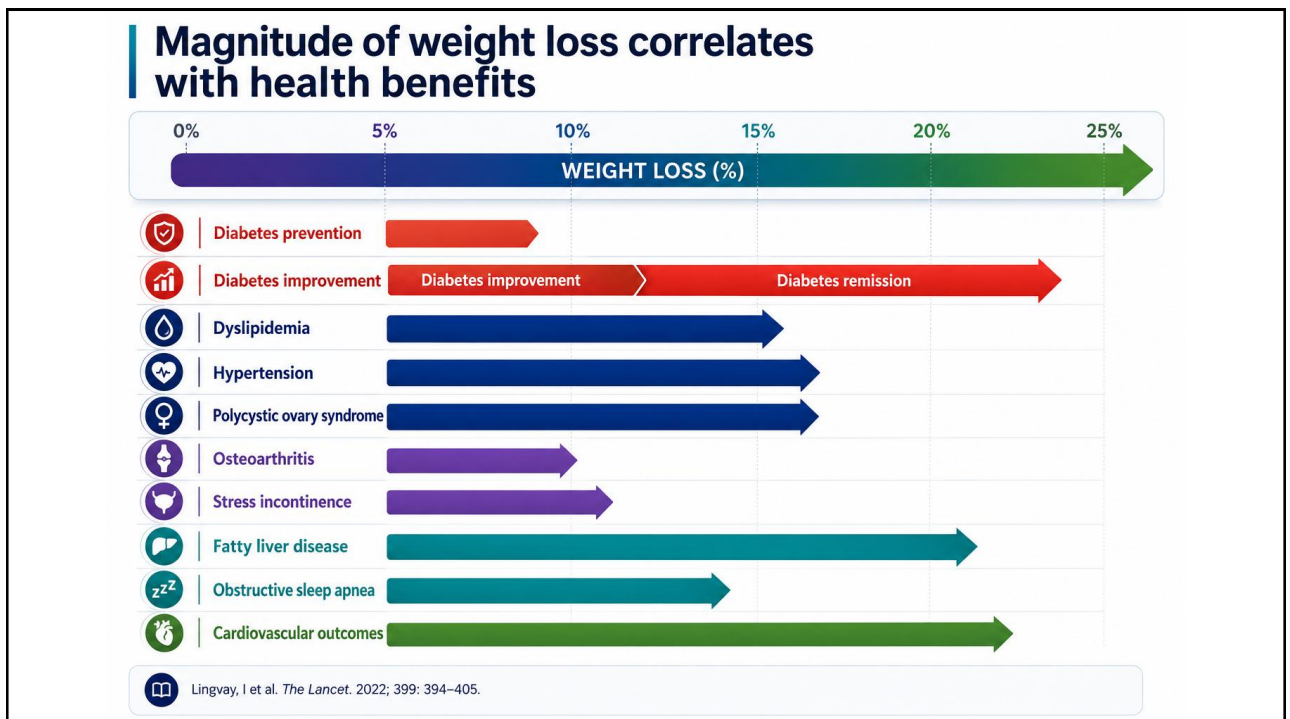
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Glycemic Control vs Weight Control in Diabetes

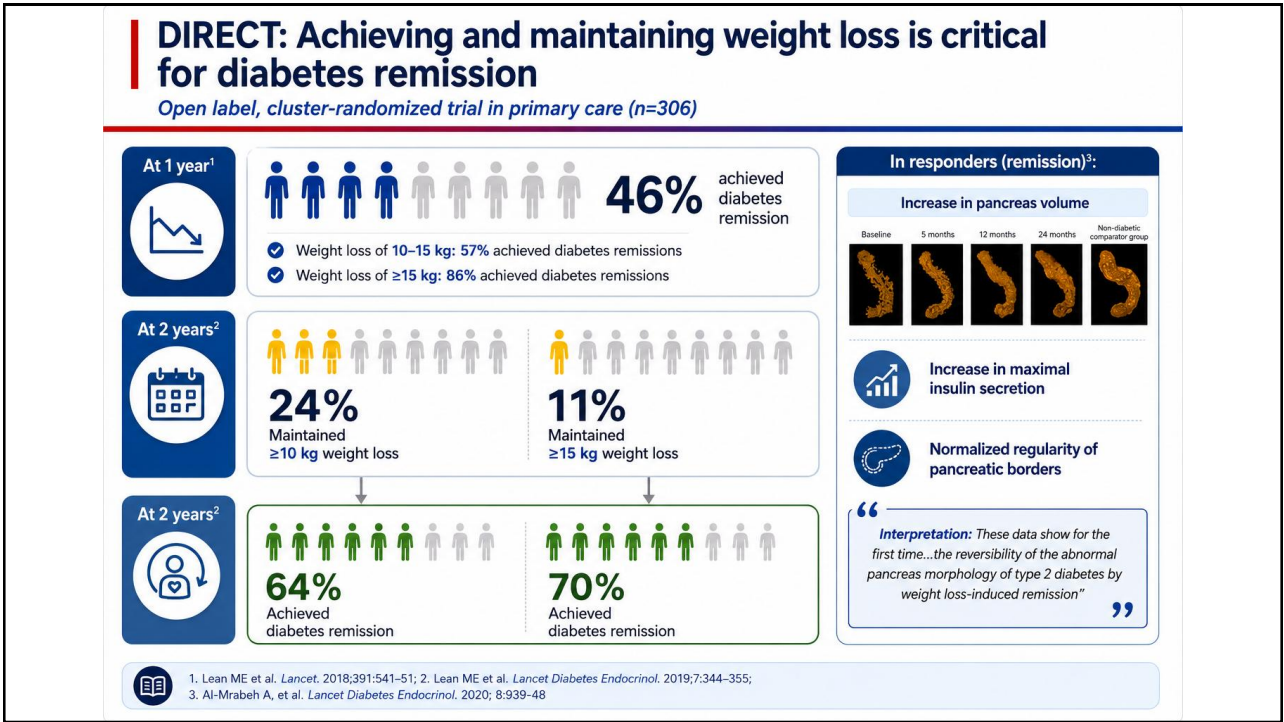
<div style="background-color: #004a99; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;"> 📊 Glycemic control reduces risks of </div> <ul style="list-style-type: none"> <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Nephropathy <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 🦿 Neuropathy <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👁️ Retinopathy <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> ❤️ Cardiovascular disease (?) <div style="background-color: #004a99; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;"> 🛡️ Weight reduction reduces risks of </div> <ul style="list-style-type: none"> <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 📊 Diabetes <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 📊 Hypertension <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 💧 Hypertriglyceridemia <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 🦿 Neuropathy <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> ❤️ Cardiovascular disease <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Chronic kidney disease 	VS	<div style="background-color: #006633; color: white; padding: 5px; border-radius: 5px; margin-bottom: 10px;"> 📊 Weight reduction also reduces risks of </div> <ul style="list-style-type: none"> <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 MASLD <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> zzz Sleep apnea <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Reflux <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> ♂️ Sexual dysfunction <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Incontinence <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Reflux <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Musculoskeletal pain <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 🧠 Depression <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 🏥 Hospitalizations <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> 👤 Frailty <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> ♿️ Disability <li style="background-color: #e6f2ff; padding: 5px; margin-bottom: 5px; border-radius: 5px;"> ❤️ ? Cardiovascular events
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📖 Gaster B, et al. *Arch Intern Med.* 1998;158(2):134-140. Ryan DH, et al. *Curr Obes Rep.* 2017;6(2):187-194. Wing R et al. *Obesity* 2021;29:1246-1258

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Look AHEAD: Weight loss magnitude and cardiovascular outcomes

Weight Change Groups (percent weight loss in first year)

Look AHEAD	Gain / Stable (<2% loss)	Small Loss (2 to 5%)	Medium Loss (5 to 10%)	Large Loss (>10%)	P Value	Test for Trend
N (%)	1972 (40.3%)	914 (18.7%)	1000 (20.4%)	1013 (20.7%)		
BMI (mean kg/m ²)	35.9	35.8	35.8	36.1	0.34	—
1-y Change in weight (mean %)	+1.6	-3.5	-7.3	-15.8	NA	—
Primary Outcome						
Events / person years	289 / 17075	141 / 7870	154 / 8570	128 / 8942		
Crude rate /100 person years	1.69	1.79	1.80	1.43		
Unadjusted HR (95% C.I.)	1.0	1.07 (0.88 – 1.31)	1.07 (0.88 – 1.31)	0.83 (0.67 – 1.02) ★	0.21	—
Adjusted HR* (95% C.I.)	1.0	1.08 (0.88 – 1.33)	1.16 (0.95 – 1.42)	0.79 (0.64 – 0.98) ★	0.17	—
Secondary Outcome						
Events / person years	422 / 16699	206 / 7657	203 / 8411	186 / 8792		
Crude rate /100 person years	2.53	2.69	2.41	2.12		
Unadjusted HR (95% C.I.)	1.0	1.08 (0.91 – 1.27)	0.96 (0.81 – 1.13)	0.83 (0.70 – 0.99) ★	0.04	—
Adjusted HR* (95% C.I.)	1.0	1.05 (0.88 – 1.25)	0.97 (0.82 – 1.16)	0.76 (0.63 – 0.91) ★	0.006	—

Primary outcome: composite of death from cardiovascular causes, non-fatal AMI, non-fatal stroke, or admission to hospital for angina.

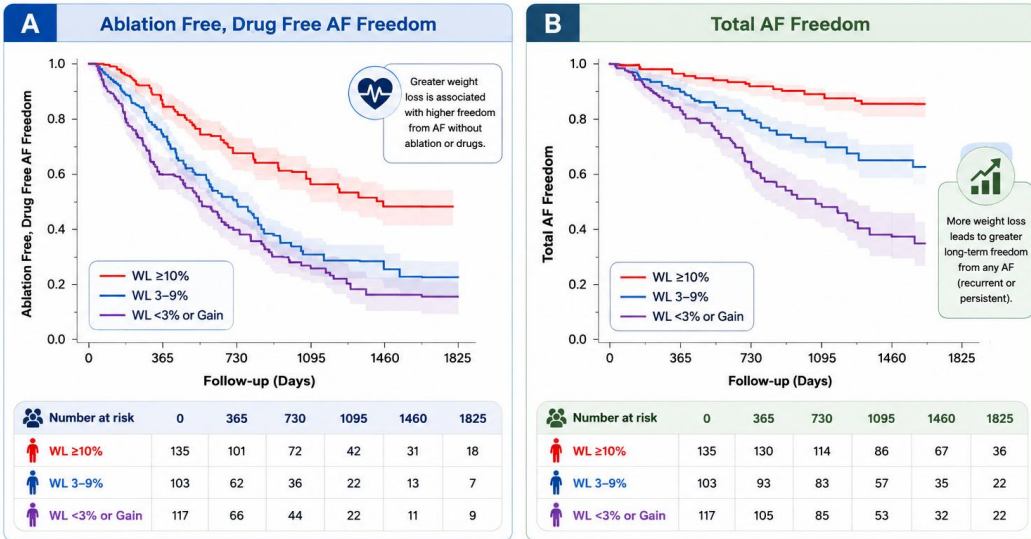
Secondary outcome: primary + CABG, carotid endarterectomy, PCI, hospitalisation for CHF, PVD, or total mortality.

★ Adjusted for sex, age, baseline weight, fitness, history of CVD, insulin use, diabetes duration, smoking status, LDL, blood pressure

Gregg Lancet Diab Endocrinol 2016

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Weight Loss Decreases Recurrent Atrial Fibrillation

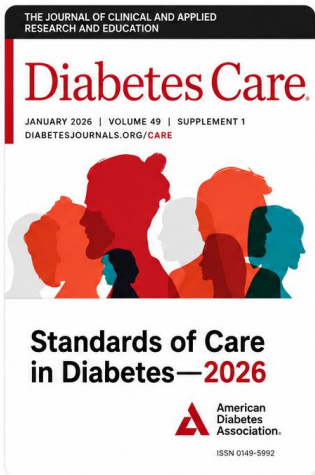


Key Takeaway: Achieving ≥10% weight loss is associated with substantially higher freedom from atrial fibrillation compared with lesser weight loss or weight gain.

Pathak J, et al. *J Am Coll Cardiol.* 2015;65(20):2159-2169.

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ADA Recommendations for Management of Obesity in Diabetes



8.2a



Screen for overweight and obesity using BMI annually.

To confirm excess adiposity, additional assessments of body fat using anthropometric assessments (e.g., waist-to-hip ratio) or direct measurements (e.g., dual-energy X-ray absorptiometry, bioelectrical impedance analysis) could be considered where available/feasible.

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In people with type 2 diabetes and overweight or obesity, weight management should represent a primary goal of treatment along with glycemic management.

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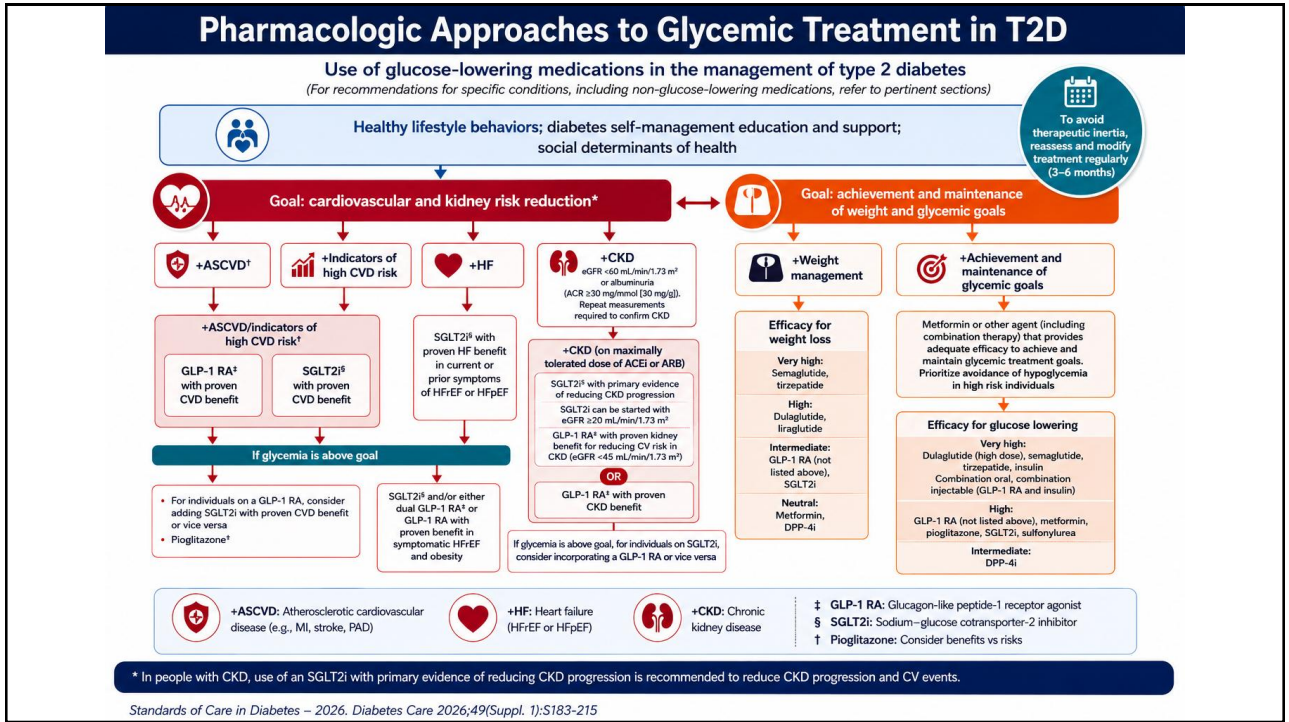


Individualize initial treatment approaches for obesity (i.e., lifestyle and nutritional therapy, pharmacologic therapy, or metabolic surgery) based on the person's medical history, life circumstances, and preferences. Consider combining treatment approaches if appropriate.

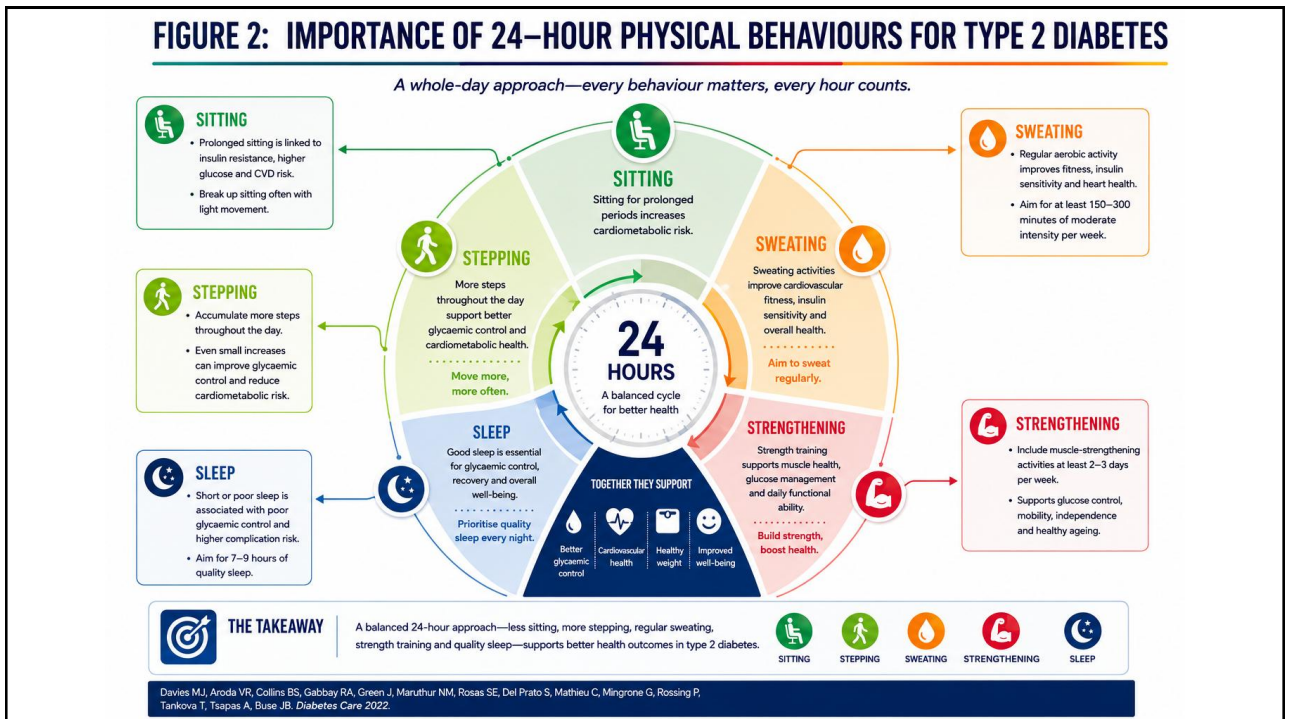
Key Takeaway: Obesity management is essential in type 2 diabetes. Screen, prioritize, and personalize to improve outcomes.



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Medications Associated with **Weight Gain**

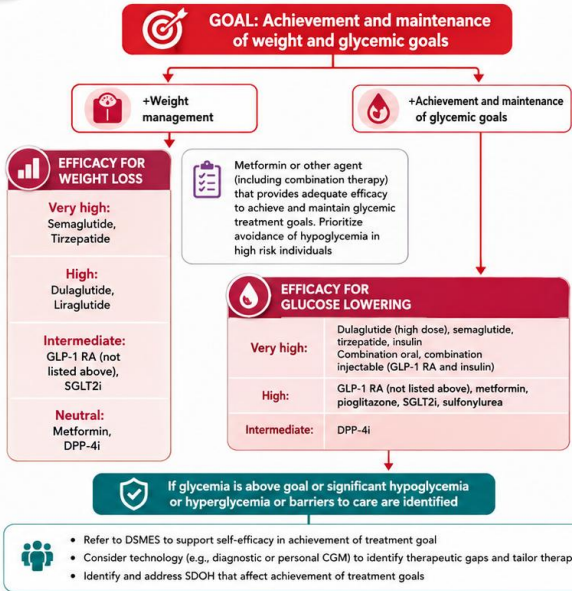
CLASS	MEDICATION EXAMPLES
Insulin & Secretagogues	Insulin; Sulfonylureas (glipizide, glyburide); Meglitinides
Thiazolidinediones (TZDs)	Pioglitazone, Rosiglitazone
Atypical Antipsychotics	Olanzapine, Clozapine, Quetiapine, Risperidone
Corticosteroids	Prednisone, Dexamethasone
Antidepressants	Mirtazapine, Citalopram, Paroxetine, TCAs
Mood Stabilizers	Lithium, Valproate
Beta Blockers	Propranolol, Metoprolol, Atenolol
Antiepileptics	Valproate, Carbamazepine, Gabapentin, Pregabalin
Antihistamines	Diphenhydramine, Cyproheptadine
Hormonal Therapies	Progestins (medroxyprogesterone), Estrogen combinations

Note: Weight gain varies by individual. Consider benefits vs. risks and monitor patients regularly.

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2026 ADA/EASD Pharmacologic Therapy for **Weight Management in T2D**



ACHIEVEMENT AND MAINTENANCE OF WEIGHT MANAGEMENT GOALS:

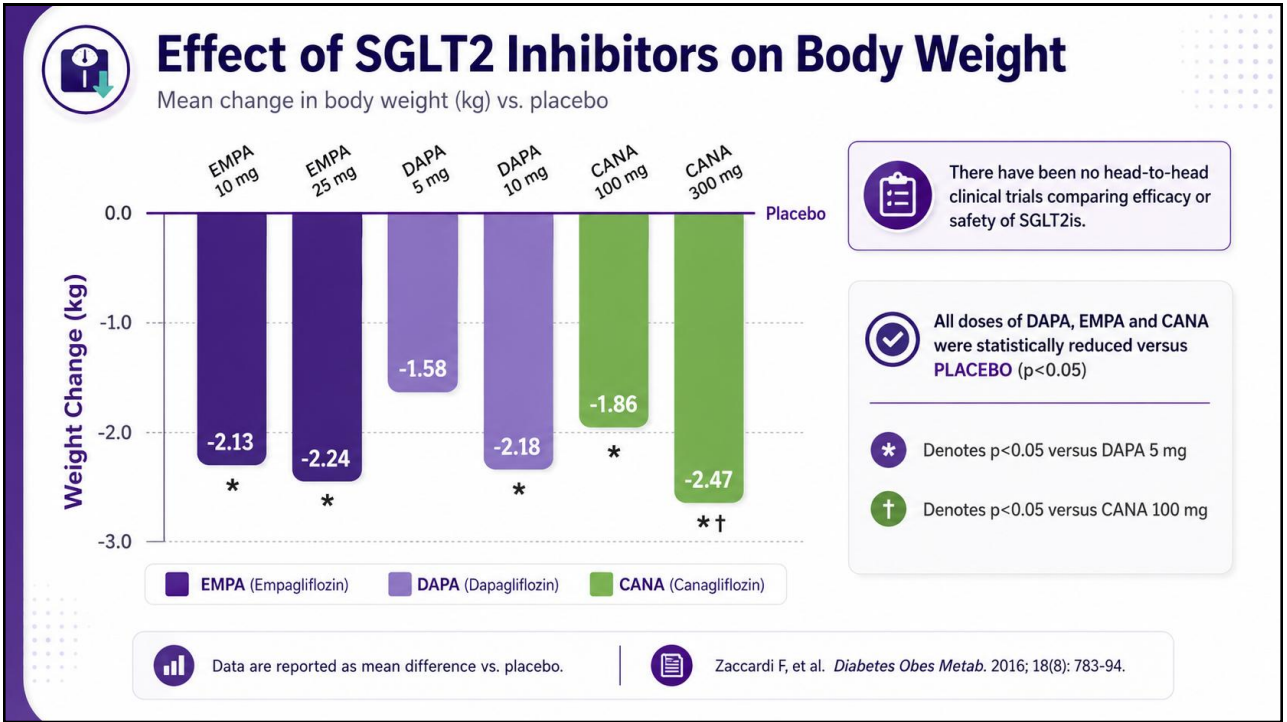
- Set individualised weight management goals
- General lifestyle advice: medical nutrition therapy/eating patterns/physical activity
- Intensive evidence-based structured weight management programme
- Consider medication for weight loss
- Consider metabolic surgery

WHEN CHOOSING GLUCOSE-LOWERING THERAPIES:

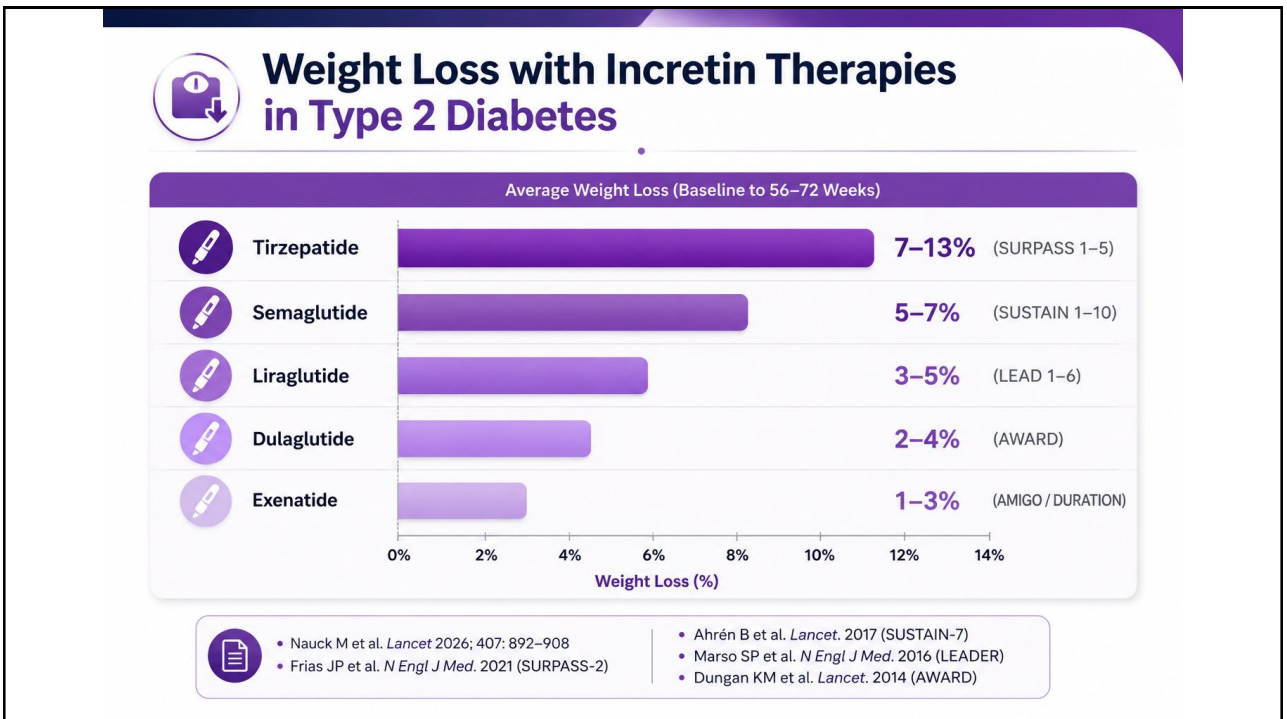
- Consider regimen with high-to-very-high dual glucose and weight efficacy

Standards of Care in Diabetes – 2026. *Diabetes Care 2026;49(Suppl. 1):S183-215*


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New approvals since this publication in February 2026 – all for weight reduction, not for glycemic control



Orforglipron – small non-peptide GLP-1 RA. Advantages, no need for complicated dosing instructions. **Highest dose** associated with




8.2%
body weight reduction



High dose injectable semaglutide 7.2 mg – weight reduction of

21%
weight reduction




High dose semaglutide tablet – 25 mg – weight reduction of








14%
weight reduction

41


33




Incretin-Based Therapies: Regulatory Indication Matrix

Therapy	Class	Type 2 Diabetes Indication	Weight Loss Indication
 Semaglutide PO & SQ	GLP-1 RA	<ul style="list-style-type: none"> ● SQ Ozempic up to 2 mg ● PO Ozempic up to 9 mg 	<ul style="list-style-type: none"> ● Wegovy up to 7.2 mg ● PO up to 25 mg
 Liraglutide SQ	GLP-1 RA	●	●
 Tirzepatide SQ	Dual GIP/GLP-1 RA	● Mounjaro up to 15 mg	● Zepbound up to 15 mg
 Dulaglutide SQ	GLP-1 RA	●	○
 Exenatide SQ	GLP-1 RA	●	○
 Lixisenatide SQ	GLP-1 RA	●	○
 Orforglipron PO	Oral non-peptide GLP-1 RA	○ <small>Approvals reflect FDA labeling as of 2026</small>	●


● FDA approved
○ Not approved




Ozempic
Multi-dose pen



Mounjaro
Single-dose pen injector (KwikPen)



Wegovy
Single-dose pen injector



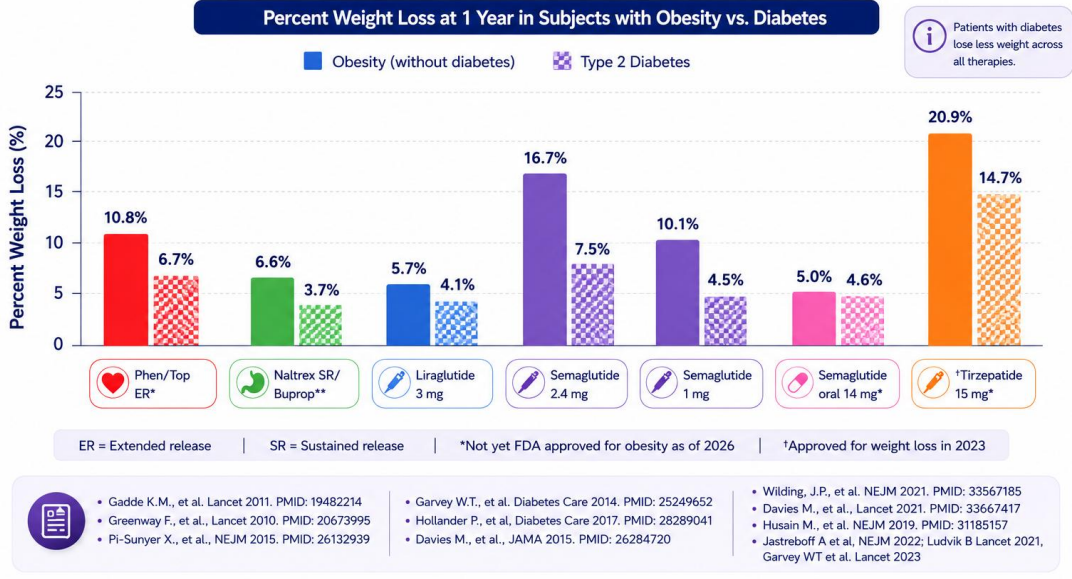
Zepbound
Single-dose pen injector, vials, KwikPen

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Carol Wysham, MD
Addressing Obesity in Diabetes: Why Weight?



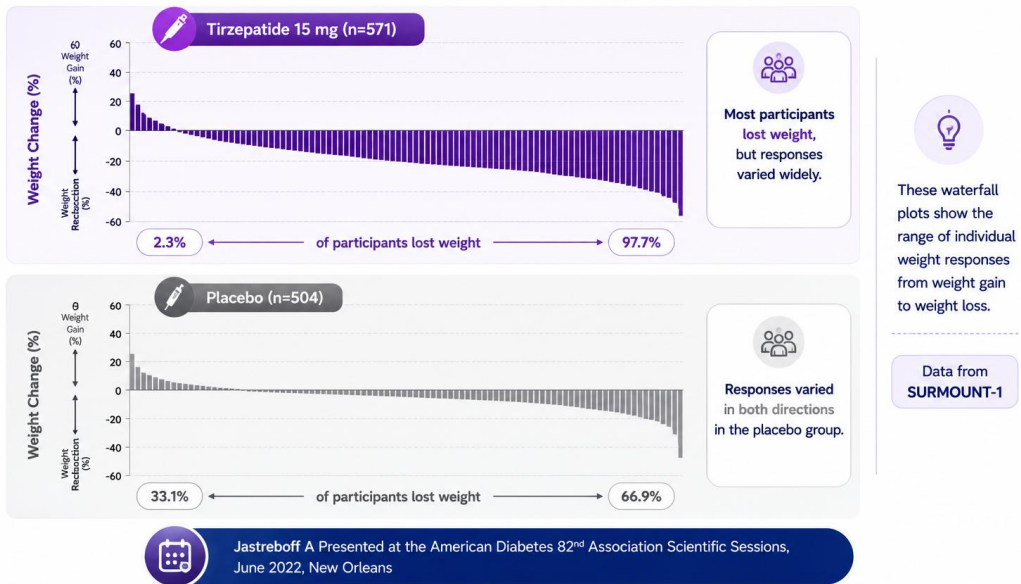
Weight reduction in FDA approved medications for weight loss: patients with diabetes tend to lose less weight *(not head-to-head)*



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Individual responses to medications and diet are variable.



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Metabolic surgery versus conventional medical therapy in patients with type 2 diabetes: 10-year follow-up of an open-label, single-centre, randomised controlled trial

Geltrude Mingrone, Simona Panunzi, Andrea De Gaetano, Caterina Guidone, Amerigo Iaconelli, Esmeralda Capristo, Ghassan Chamseddine, Stefan R Bornstein, Francesco Rubino

Lancet 2021; 397: 293-304



AIM

To compare metabolic surgery with medical therapy for the treatment of type 2 diabetes in people with obesity



INCLUSION

30-60 yo + BMI >35 kg/m² + T2DM >5y + HbA1c >7.0%



INTERVENTION

Lifestyle modification and adjustment of T2DM medications with aim HbA1c <7% vs RYGB or BPD



PRIMARY OUTCOME

Rate of diabetes remission at 2 years (fasting glucose level <100 mg/dL and HbA1c <6.5% for >1y without medication)



10-YEAR DURABILITY

(n=58 of original 60 participants)



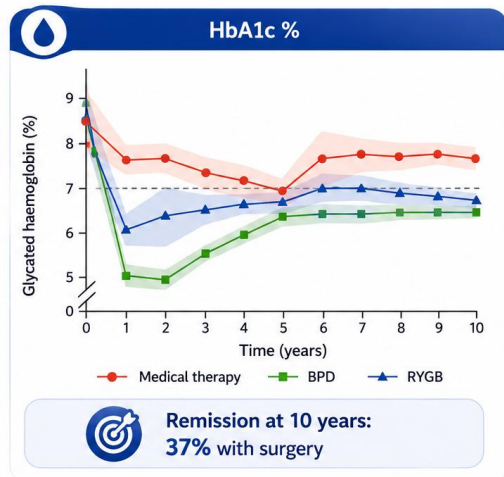
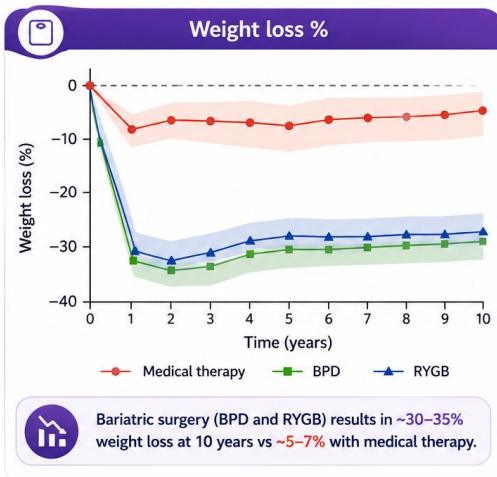
BASELINE CHARACTERISTICS

	RYGB	BPD	Medical
N	20	20	18
% female	60	50	50
Age (y)	44	44	43
Weight (kg)	129	128	137
BMI (kg/m ²)	44.2	44.4	44.6
Years with T2DM	6.0	5.5	6.0
HbA1c (%)	8.6	8.9	8.5
Insulin use (%)	45	50	55

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Greater weight loss with bariatric surgery is associated with greater improvement in glucose control in established T2D



Mingrone Lancet 2021

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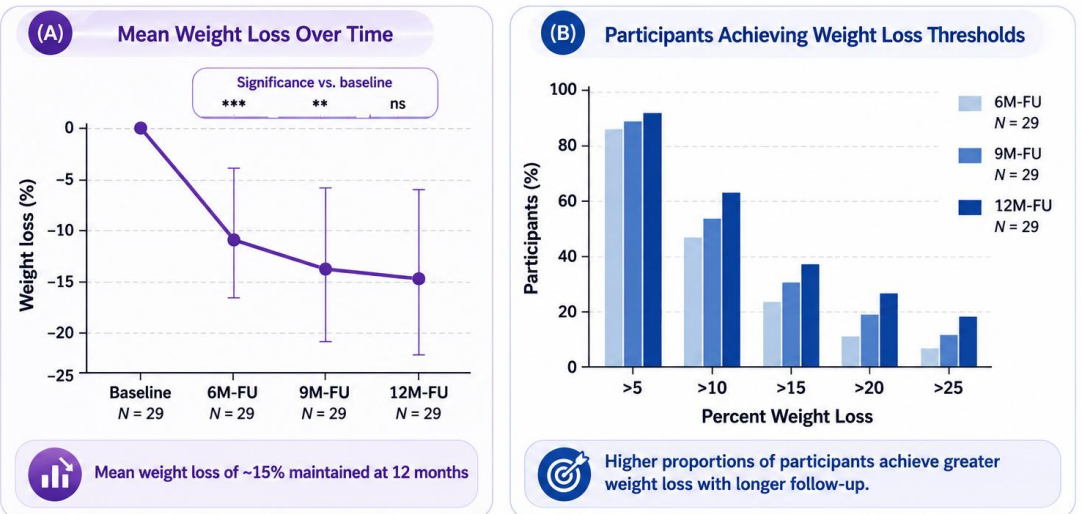
Metabolic surgery for T2D – cardiorenal outcomes (retrospective cohort study)



Aminian A et al. *JAMA*. 2019;322:1271–1282

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Sustained weight loss with semaglutide in patients without T2D after post-bariatric treatment failure

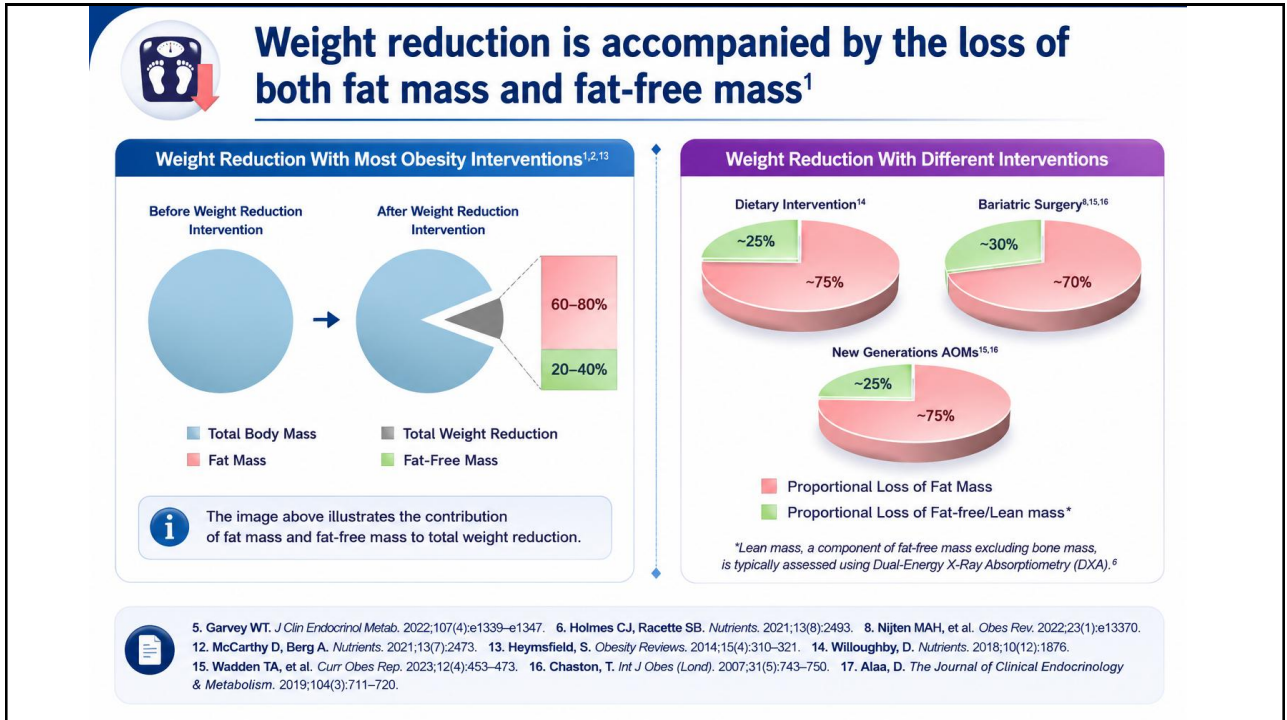


Mean weight loss of ~15% maintained at 12 months

Higher proportions of participants achieve greater weight loss with longer follow-up.

Clinical Obesity, Published online: 26 June 2023, DOI: (10.1111/cob.12593)

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Who is at risk for too much weight loss?

- Lower BMI (<35)**
- Older individuals**
(because they start with lower lean mass)
- Sarcopenic Obesity**
- Older women**
(because of the higher risk of osteoporosis)
- Women**
(because of the cultural drive for slimness driving unrealistic body image)

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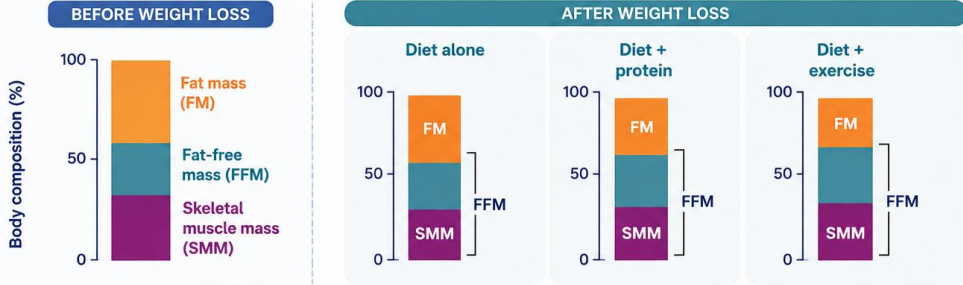


Weight loss-induced reduction in fat-free mass (FFM) and skeletal muscle mass (SMM) is attenuated through dietary protein and exercise

A Figure. Body Composition Before and After Weight Loss



Representation of body composition before and after 25% intentional weight loss



Weight loss reduces both fat mass (FM) and fat-free mass (FFM), including skeletal muscle mass (SMM).



Adequate dietary protein helps preserve FFM during weight loss.



Exercise further attenuates loss of FFM, preserving skeletal muscle mass.



Conte C, et al. *JAMA*. 2024;332(1):9-10

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Beyond Weight Loss



Before Rx

- Assess risk factors for malnutrition and low muscle mass and function



During WL on Rx

- Prioritize high quality protein intake (1.2–1.5 gm/kg/day, fluids, prevention of nutrient deficiencies and resistance training)




Long Term Management on Rx






- Continue nutritional support with meal replacements, sustainable eating plans and individualized physical activity goals



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Management of GLP-1 Associated Adverse GI Events




	Eat smaller, nutrient-dense meals more frequently	Choose balanced meals rich in protein, fiber, vitamins, and minerals.
	Limit high-fat, spicy foods, alcohol, and carbonated beverages	These can worsen GI symptoms such as nausea, bloating, and reflux.
	Reduce dose, slow titration, or switch therapy (microdosing)	Adjust treatment to improve tolerability while maintaining benefits.
	Use OTC medications for short-term symptom relief if needed	Examples include antacids, H ₂ blockers, or antiemetics as appropriate.
	Ensure adequate intake of protein, fiber, fluids, and micronutrients	Supports GI health, prevents deficiencies, and promotes overall well-being.
	Use short-term supplements if oral intake is inadequate	Consider protein shakes, vitamin or mineral supplements as recommended.

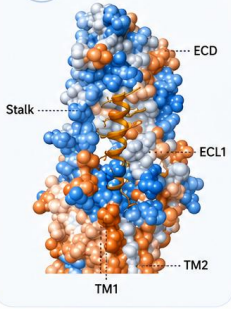
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Drugs in Development: Dual and Triple Receptor Agonists


Next-generation incretin and glucagon receptor agonists for obesity treatment



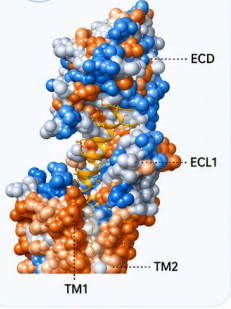
GIPR
GIP Receptor




Stalk ECD
ECL1
TM1 TM2



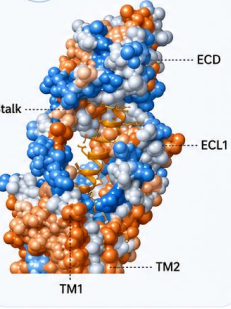
GLP-1R
GLP-1 Receptor



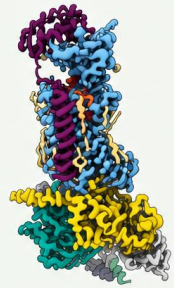
Stalk ECD
ECL1
TM1 TM2




GCGR
Glucagon Receptor




Stalk ECD
ECL1
TM1 TM2



Cagrilintide
(amylin analogue)



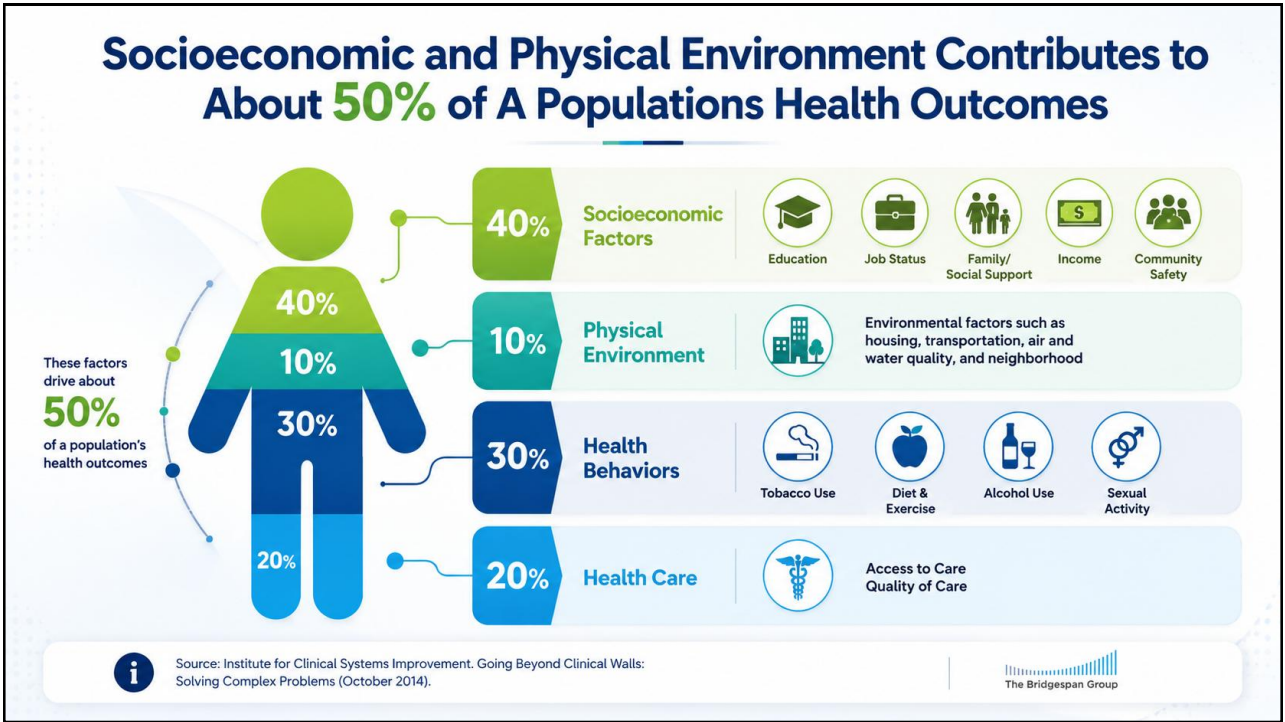
Associated with **16%** body weight reduction with dual agonists and **24%** with triple agonists in people without diabetes



Study population: People without diabetes

Zhao F et al. Structural insights into multiplexed pharmacological actions of tirzepatide and peptide 20 at the GIP, GLP-1 or glucagon receptors. *Nat Comm* 2023

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Holistic management of patients with diabetes includes:

01 Diabetes Education
Empower patients with knowledge and skills for self-management.

02 Weight management
Achieve and maintain a healthy weight to improve outcomes.

03 Prevention of vascular complications

A1c	Target < 7%
BP	Target < 130/80 mmHg
Cholesterol	Target LDL < 70 mg/dL (or < 55 mg/dL for very high risk)

04 Use of appropriate medications to address

CVD

HF

CKD

MASLD

05 Routine monitoring for complications/comorbidities

- Eye exams
- Annual labs
- Foot exams/education
- NAFLD
- OSA
- CHF
- diabetes distress/depression

06 Consideration of need for contraception | Discuss family planning and safe, effective contraception options.

07 Addressing SDOH | Address social determinants of health to reduce barriers and improve outcomes.

A patient-centered, comprehensive approach improves glycemic control, reduces complications, and enhances quality of life.

Holistic care. Better outcomes. **Healthier lives.**

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Summary

- Overweight/Obesity** is present in the majority of patients with T2D.
- Targeting a **10–15%** total reduction in body weight improves quality of life and diabetes outcomes including the potential for remission of diabetes and improvement in many comorbidities: **HTN, dyslipidemia, ASCVD, HFpEF, MASLD, sleep apnea, pain from osteoarthritis, GERD**
- The **modality** of weight reduction overall appears **less important** than the **magnitude**, except some bariatric surgeries which may have a weight independent effect on diabetes and the incretin therapies that might have specific effects on ASCVD and MASLD.
- Current and upcoming medications appear to be highly effective at reaching **>15%** weight loss.
- Earlier intervention** for prevention of diabetes and other comorbidities associated with obesity should be promoted.
- Public health measures** are desperately needed to tackle the obesity problem.
- Sustained, comprehensive, and equitable approaches are essential to improve **health**, **reduce complications**, and **enhance quality of life**.

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