

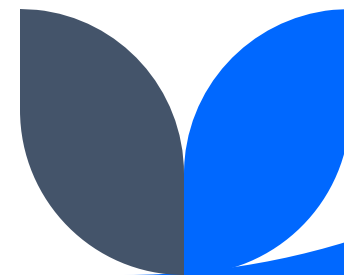


Navigating Anti Obesity Medications:



**What Every RDN
Should Know**

Disclosures: None



Objectives

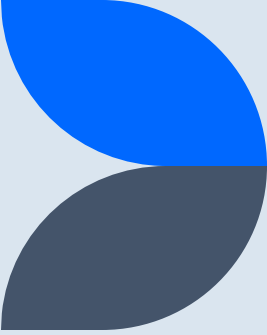
Have a better understanding of obesity as a chronic disease

Be able to identify medications used for obesity treatment (Incretin Based Therapies)

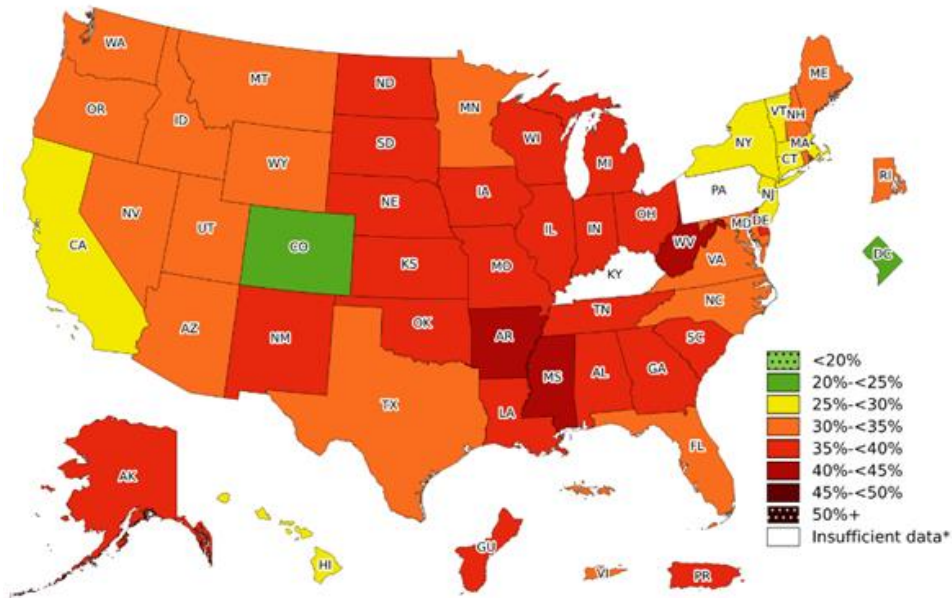
Have an understanding of how they work, indications/contraindications, potential side effects

Understand the potential effect of meds on nutritional status

Understand the role of the RDN in both short and long term treatment



Prevalence of obesity



WHO: 2022 1 in 8 people were living with obesity worldwide

Adult obesity has doubled since 1990 and adolescent obesity has tripled

CDC: in 2022, 22 states have adult obesity rates at or above 35% compared to 19 states in 2021.

41.2% of adults in WV in 2023 were living with obesity

This is the highest rate in the US followed by Mississippi and Arkansas

[WHO Obesity and overweight](#)

[Adult Obesity Prevalence Maps | Obesity | CDC](#)



Obesity is a Chronic Disease



Obesity has been recognized as a chronic disease for some time



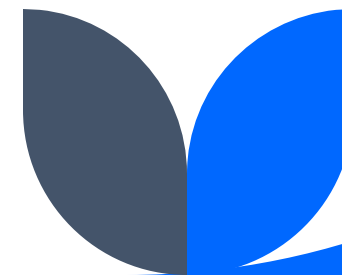
A “chronic, relapsing, multifactorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences.

[Definition of Obesity | Obesity Medicine Association](#)



1948: Obesity is a chronic complex disease defined by excessive fat deposits that can impair health

[Obesity and overweight](#)

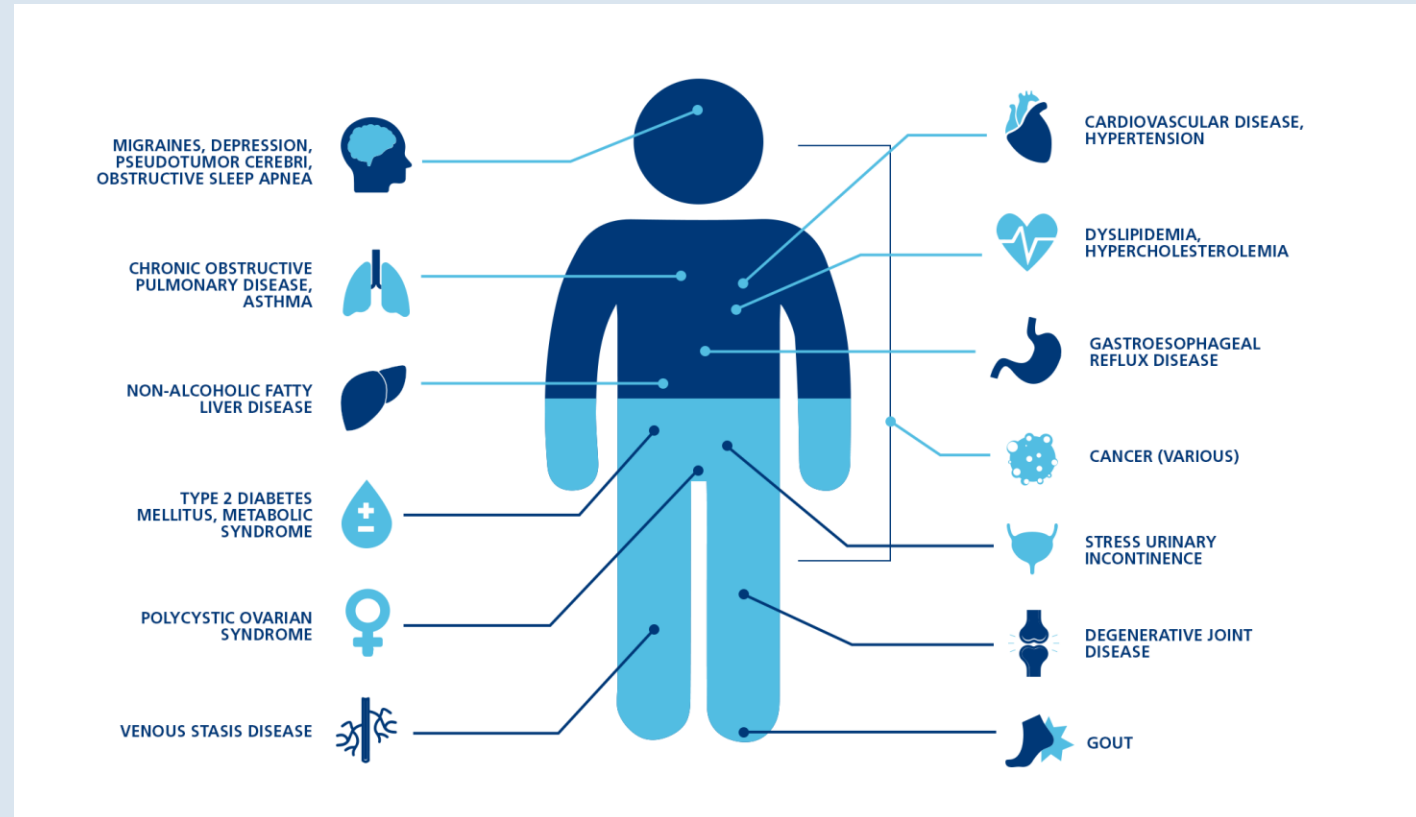


Obesity is a chronic disease...

The American Medical Association recognized obesity as a disease in 2013.

Obesity is a chronic disease that is associated with more than 200 comorbidities such as diabetes, high blood pressure, heart disease, and multiple types of cancer

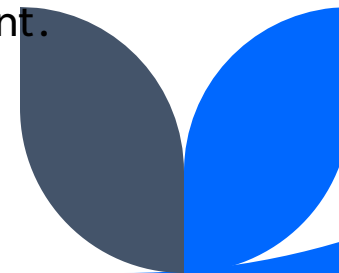
Image from rethinkobesity.com





2023 Consensus Statement

- Obesity is a highly prevalent chronic disease characterized by excessive fat accumulation or distribution that presents a risk to health and requires lifelong care. Virtually every system in the body is affected by obesity. Major chronic diseases associated with obesity include diabetes, heart disease, and cancer.
- The body mass index (weight in kg/height in meters²) is used to screen for obesity, but it does not displace clinical judgment. BMI is not a measure of body fat. Social determinants, race, ethnicity, and age may modify the risk associated with a given BMI.
- Bias and stigmatization directed at people with obesity contributes to poor health and impairs treatment.
- Every person with obesity should have access to evidence-based treatment.



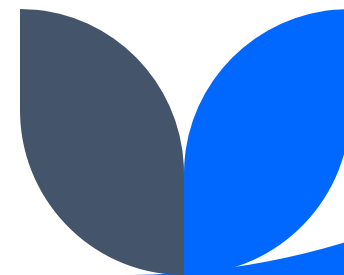
The Lancet Report: March 2025

Definition and diagnostic criteria of clinical obesity

Rubino, Francesco et al.
The Lancet Diabetes & Endocrinology, Volume 13, Issue 3, 221 - 262

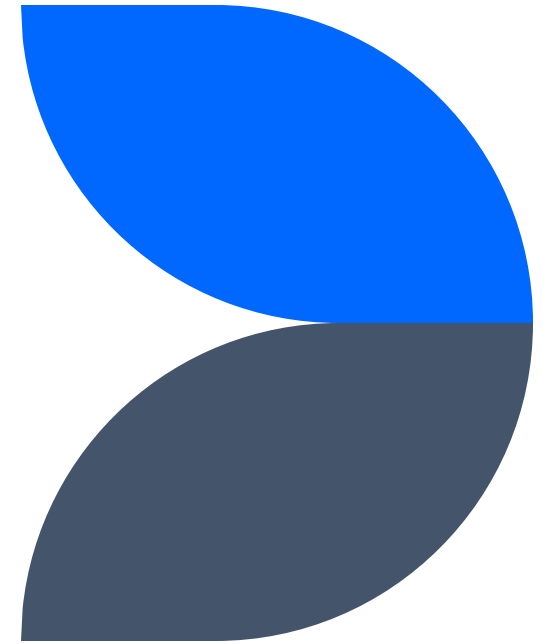
New diagnostic model:

Distinguish clinical obesity from preclinical obesity on the basis of the presence or absence, respectively, of objective clinical manifestations (signs and symptoms) of altered organ function or impairment of an individual's ability to conduct daily activities

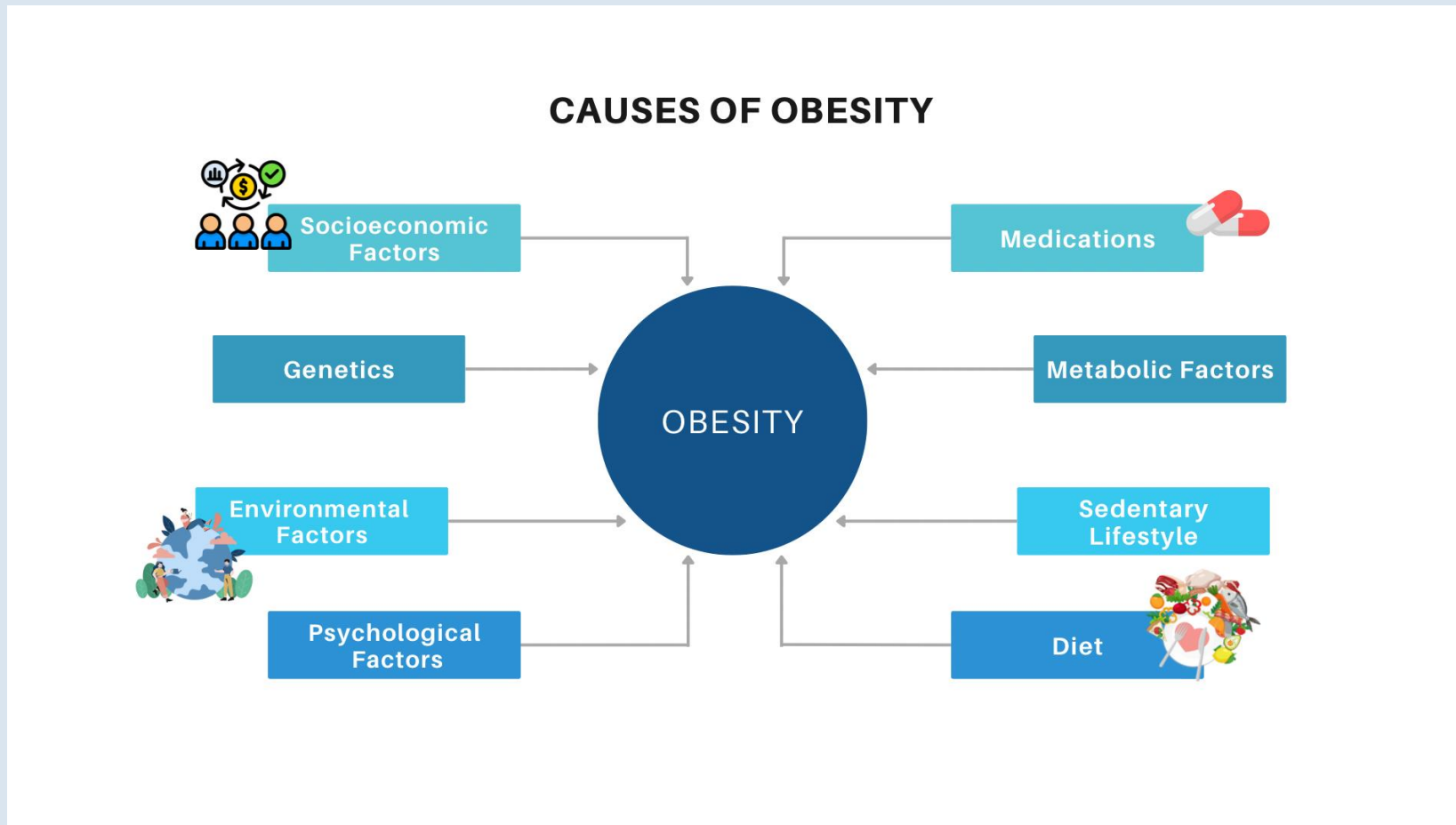


There are many causes of Obesity

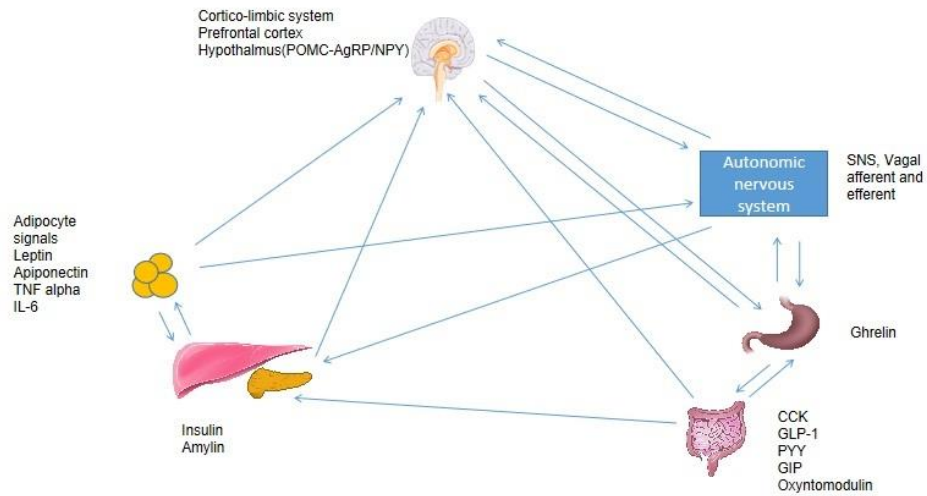
It is not all about diet and
exercise....



Internal and External Factors Contribute to Obesity



Internal Factors



Genetics and metabolic factors

Weight loss triggers hormonal adaptations drive our bodies to return us to a higher weight:

Increase in hunger

Decrease in satiety

Metabolic adaptation (decrease in REE)

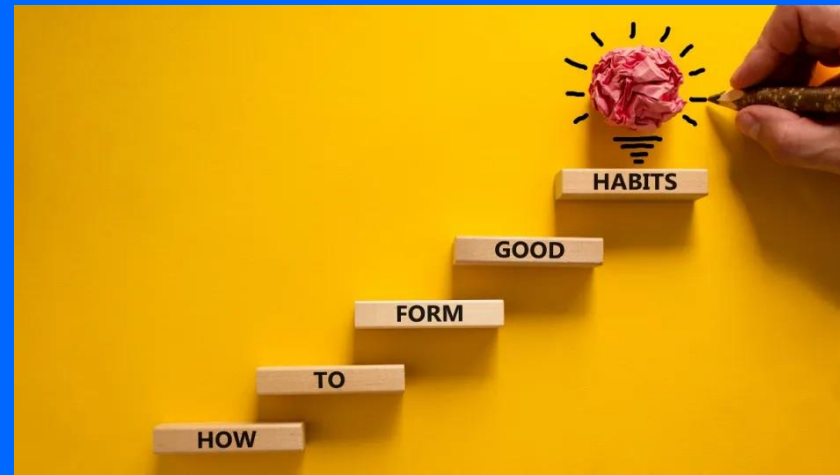
Decrease in spontaneous movement

Image from: [Physiology, Appetite And Weight Regulation - StatPearls - NCBI Bookshelf](#)

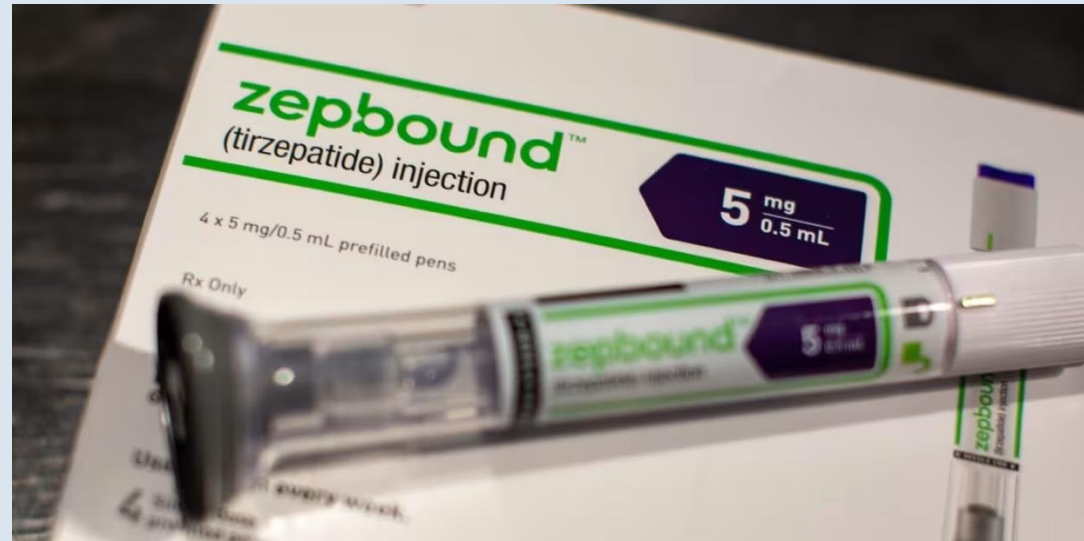


Treatment With a 4 Pillar Approach

The Four Pillars of Obesity Treatment | Obesity Medicine Association



The RDN Role In Incretin Based Therapies For Obesity



What are incretin based therapies?

GLP-1 RA: glucagon peptide 1 receptor agonists

GIP: glucose dependent insulinotropic polypeptide

What do GLP 1 and GIP do?

GLP1: stimulates insulin secretion, reduces glucagon release, slows gastric emptying and works in the brain to reduce appetite

GIP: released in response to food intake and enhances insulin secretion when glucose levels are elevated after meals



How do these medications work?

Signal the pancreas to increase insulin production

Increase satiation (feeling full faster) and induces satiety

Slow down gastric emptying

Act on the brain to reduce hunger and appetite

Lower blood sugars after meals

Possibly cause taste and preference changes

Reduce or eliminate food noise



The urgency is no longer there...

- Allows people time to be mindful and make healthy choices
- Experience fewer cravings and less temptation to overeat
- May help by acting on reward pathways in the brain
- Reduced ad libitum intake by 16-39%



These therapies have been around for 20 years!

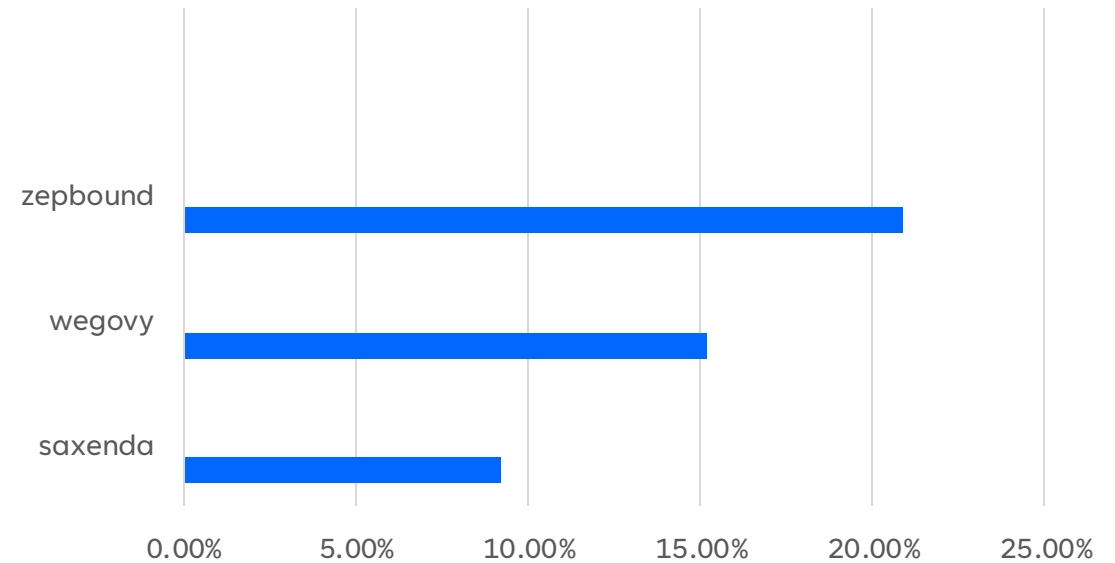
Approved for type 2 diabetes		Approved for obesity					
Glucagon-like peptide-1 receptor agonists							
Generic Name	Trade name (FDA approval date)	Age Range	Dosing Guideline	Trade Name (FDA approval date)	Age range	Dosing guideline	
Exenatide (immediate release)	Byetta (2005)	≥10 y	Subcutaneous injection: 5, 10 mcg twice per day	NA ^a	NA	NA	
Exenatide XR	Bydureon (2012)	≥10 y	Subcutaneous injection: 2 mg weekly	NA	NA	NA	
Liraglutide	Victoza (2010)	≥10 y	Subcutaneous injection: 0.6, 1.2, 1.8 mg daily	Saxenda (2014)	≥18 y with BMI ^b ≥30 or ≥27 if weight-related medical issues 12-17 y with initial weight >60 kg (132 lb)	Subcutaneous injection: 0.6-3.0 mg maximum dose daily	
Dulaglutide	Trulicity (2014)	≥10 y	Subcutaneous injection: 0.75, 1.5, 3.0, 4.5 mg weekly	NA	NA	NA	
Semaglutide	Ozempic (2017)	≥18 y	Subcutaneous injection: 0.25, 0.5, 1.0, 2.0 mg weekly	Wegovy (2021)	≥18 y with BMI ≥30 or ≥27 if at least 1 weight-related medical issue ≥12 y with initial BMI 95 th percentile for age, sex	Subcutaneous injection: 0.25 mg, 0.5 mg, 1 mg, 1.7 mg weekly Maintenance dose: 1.7 mg and 2.4 mg weekly	
	Rybelsus (2019)	≥18 y	Oral tablet: 3, 7, 14 mg daily	N/A			
Glucagon-like peptide-1 receptor agonists with glucose-dependent insulinotropic polypeptide							
Tirzepatide	Mounjaro (2022)	≥18 y	Subcutaneous injection: 2.5, 5.0, 7.5, 10, 12.5, 15 mg weekly Maintenance dose: 10 mg and 15 mg weekly	Zepbound (2023)	≥18 y with BMI ≥30 or ≥27 if at least 1 weight-related medical issue	Subcutaneous injection: 2.5, 5.0, 7.5, 10, 12.5, 15 mg, weekly	

^a NA = not applicable.

^b BMI = body mass index; calculated as kg/m².

Gigliotti, Linda et al.
Incretin-Based Therapies and Lifestyle Interventions: The Evolving Role of Registered Dietitian Nutritionists in Obesity Care
Journal of the Academy of Nutrition and Dietetics, Volume 125, Issue 3, 408 - 421

Weight loss at highest dose



Inclusion Criteria

Tip: this does not mean insurance will pay for them!

Adults with BMI
of 27 with
comorbidity

Adults with BMI
of 30+

Children at least
12y with BMI of
30+ (saxenda and
wegovy only)



Contraindications

Medullary thyroid cancer or multiple endocrine neoplasia type 2 in themselves or family

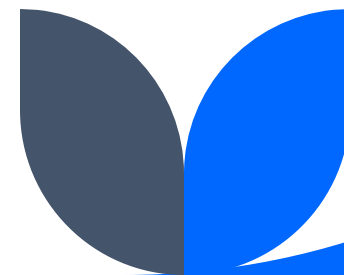
Pancreatitis or family hx of pancreatic disorders

Gastroparesis or severe IBD

Severe renal impairment

Possibly contraindicated with hx of eating disorders

Pregnancy or breast feeding



These are not a replacement for lifestyle interventions!



Nutrition and movement produce modest weight loss (5-10%) but sustainability is unlikely over time



50% regain by 2y



80% regain by 5y



Meds will increase likelihood of additional weight loss and sustainability if therapy continues



Lifestyle and medications are concurrent tools

Amount of weight loss is dependent on:

Drug

Dose

Concurrent lifestyle changes

Individual response

Education:

Medication titration

Most are titrated every 4 weeks until the lowest effective dose is reached.

This is not always the highest dose!

RDNs play a huge role in patient success

Zepbound dosing schedule



What to expect:

Satiation

Prolonged
satiety

Decreased
appetite

Delayed
gastric
emptying



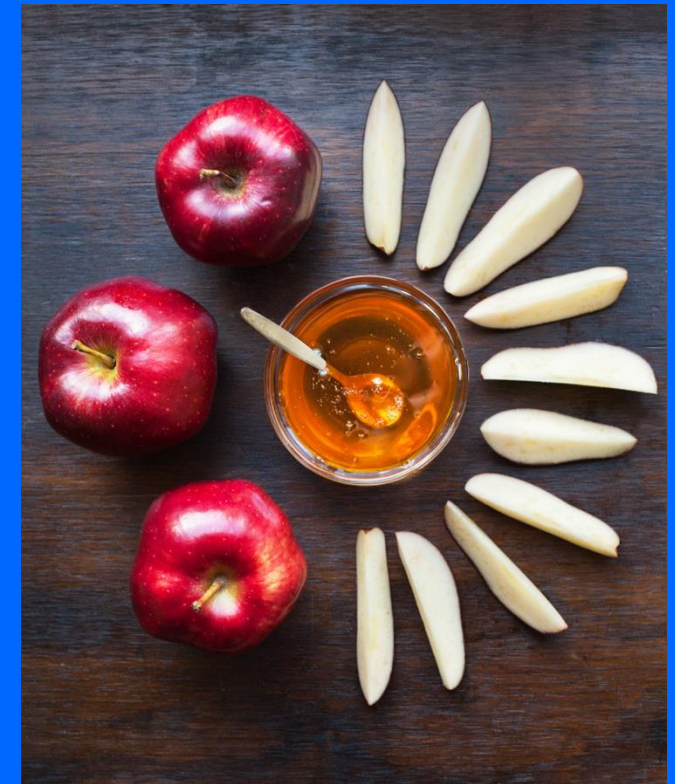
These factors can cause nutrition related concerns:



- Nausea, vomiting, diarrhea, constipation in 10-30% of people
- Fatigue
- Possible headaches
- Poor appetite and nutrient deficiencies
- AKI
- Loss of lean mass
- Rare pancreatitis

Tips to handle GI side effects: Nausea/Vomiting

1. Limit greasy/high fat foods/spicy foods
2. Limit high sugar foods
3. Eat slowly; stop at first sign of fullness
4. Eat small portions (may need more frequent meals)
5. Cold foods may be tolerated better than hot
6. Limit foods with strong odors
7. Stay well hydrated.
8. Try sipping on peppermint or ginger tea
9. Rotate injection sites
10. Sometimes not eating makes it worse!



Tips to handle GI side effects: Constipation

1

Eat high fiber foods:
plenty of plants! Fruit,
veggies,
beans/legumes, whole
grains

2

Drink more fluids/add
hydrating foods

3

Ease up on the protein
bars and shakes if
using them regularly

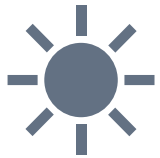
4

Try Senna tea, fiber
supplement, stool
softener

5

Increase physical
activity

Tips to handle GI side effects: Diarrhea



Stay well hydrated



Limit intake of coffee
dairy, alcohol,
carbonated beverages



Limit fiber intake
temporarily



Try bland foods



Check in with MD if
persistent for medical
intervention





Other side effects

Headaches: possibly due to lower BS or dehydration: hydrate well and eat regularly

Fatigue:

- Don't eliminate simple carbohydrates for energy
- Try to get in some liquid calories: smoothies, shakes/protein drinks
- Try electrolyte drinks, especially if it's hot
- Make sure your pt is sleeping adequately



Other side effects: Poor appetite



Manage any GI side effects



Nutrient rich foods



Small frequent meals



Supplementation may be needed for protein or Vit/Min



Dose adjustment: should be hungry enough to eat reasonable meals

Nutrition Assessment and Interventions

Focus on
gradual weight
loss of 1-2lb/wk

Avoid rapid
weight loss

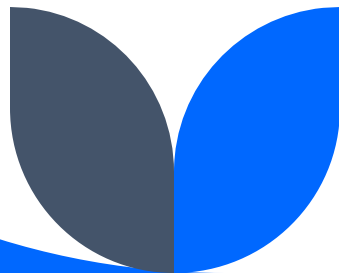




Energy needs

- Calculate using Mifflin St Jeor at actual BW
- Assign activity factor
- Assess an energy deficit of 500-750 Kcal

- <https://www.anddeal.org>



Protein needs:



Maintaining a higher protein diet and avoiding severe caloric restriction is needed to help maintain LBM



Aim for 1.2-1.6g/Kg (adjusted BW)



Intentional weight loss does result in loss of LBM, but we want to minimize it

INTENTIONAL NUTRITION



Focus on evidence based healthy eating patterns tailored to the individual

No skipping meals: 3 meals and snacks as needed

Smaller portions

Lower fat

Higher fiber

What's on the plate?



Focus on protein first: to benefit lean mass and satiety: lean animal and plant based sources



Add in produce: at least a cup or more of non starchy veg/fruit for vitamins, minerals, fiber and fluid



Add those healthy whole food carbs: whole grains, starchy veg for energy and fiber



Heart healthy fats: plant based unsaturated oils, foods



Thirst can be diminished

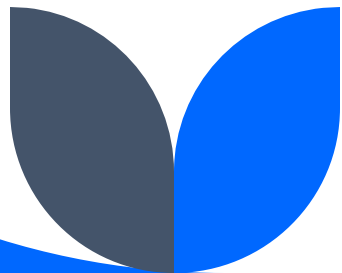
At least 64oz fluid daily

Drink between meals if
needed

Remember foods contain
fluids too!

Fluids and Supplements

- Assess nutrient adequacy and supplement as needed
- Fortified protein shakes
- Protein bars/snacks
- MVI with minerals if needed
- Try not to rely on bars and shakes: emphasize whole foods!

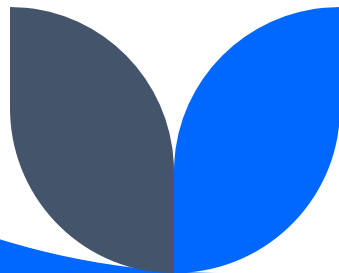




Physical Activity: Joyful Movement!!

- Losing LBM is not completely avoidable
- Loss of LBM can affect sustainability of weight loss by negatively impacting metabolic rate, energy levels, neuromuscular function, and increases risk for injury
- Exercise, particularly resistance training can help maintain SMM

Cava E et al 2017



Physical Activity Guidelines for Americans



150 minutes of moderate or
75 minutes of vigorous
cardiovascular activity per
week

Resistance training 2-
3x/week

Limitations

Many of our patients
have significant
physical limitations

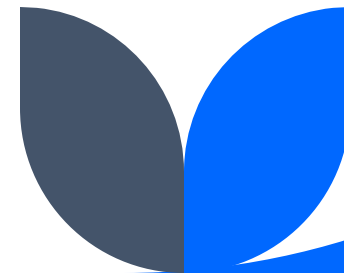
Could benefit from
referrals to exercise
specialists for safety,
monitoring, and
support



Physical Activity and Weight Maintenance

Physical activity can improve weight maintenance long term for anyone, including those having to discontinue use of incretin based therapies

Jensen SBK, et al 2024





Food Behaviors

Behavioral factors can still play a big role

Incretins do not address the complex psychological behaviors around food

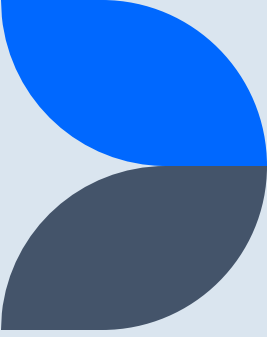
Food Behaviors

Emotional
eating/stress
eating

Ingrained
eating
habits

Reward
systems

Trauma



Long Term Medication Use



We believe that these medications will need to be used long term to sustain weight loss



May be used at different doses or intervals



Sudden discontinuation will lead to weight recurrence; amount and rate is unclear



Investigating gradual dose reduction, transition programs

Long Term Medication Use

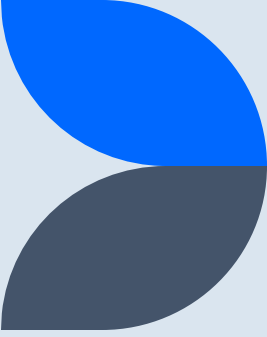


Step 4 and Surmount 4 showed weight regain even with continued counseling for lifestyle though better than no lifestyle intervention



Changing meds may be warranted and helpful with maintenance of weight loss

What can we advise if meds are stopped?



Highly soluble and fermentable fibers naturally increase GLP1, though not nearly as much or as long as meds.

Protein and fiber can both increase satiety

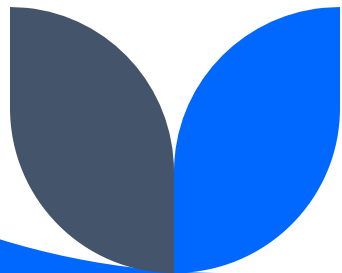
Continue physical activity

Mindful eating and stress management



Questions?

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- cshawrd@gmail.com



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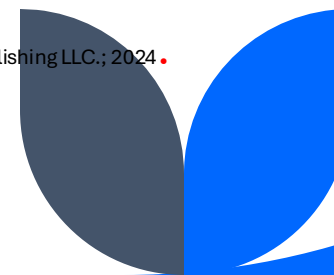
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