

DDC'24

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Emerging Trends and Innovations in
Gastroenterology and Hepatology



Obesity Management for Gastroenterologists and Hepatologists

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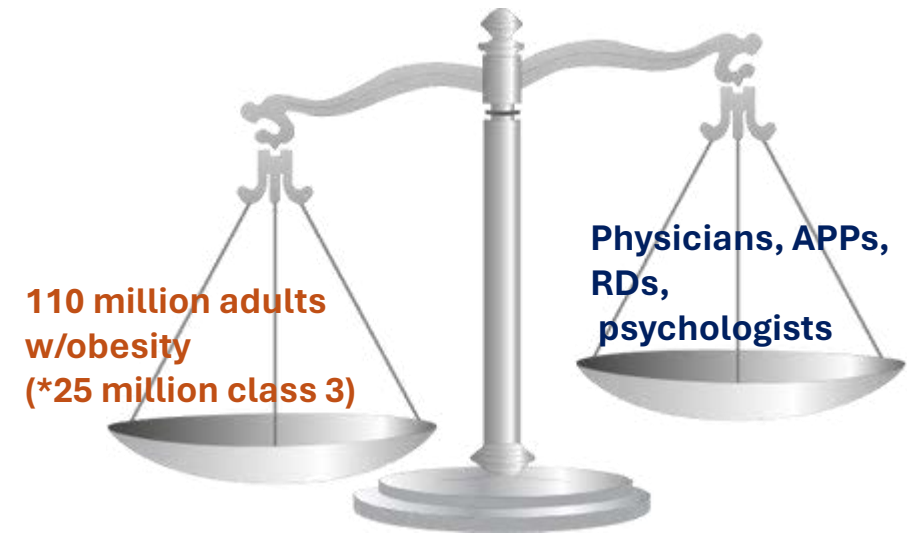
10 am New Patient

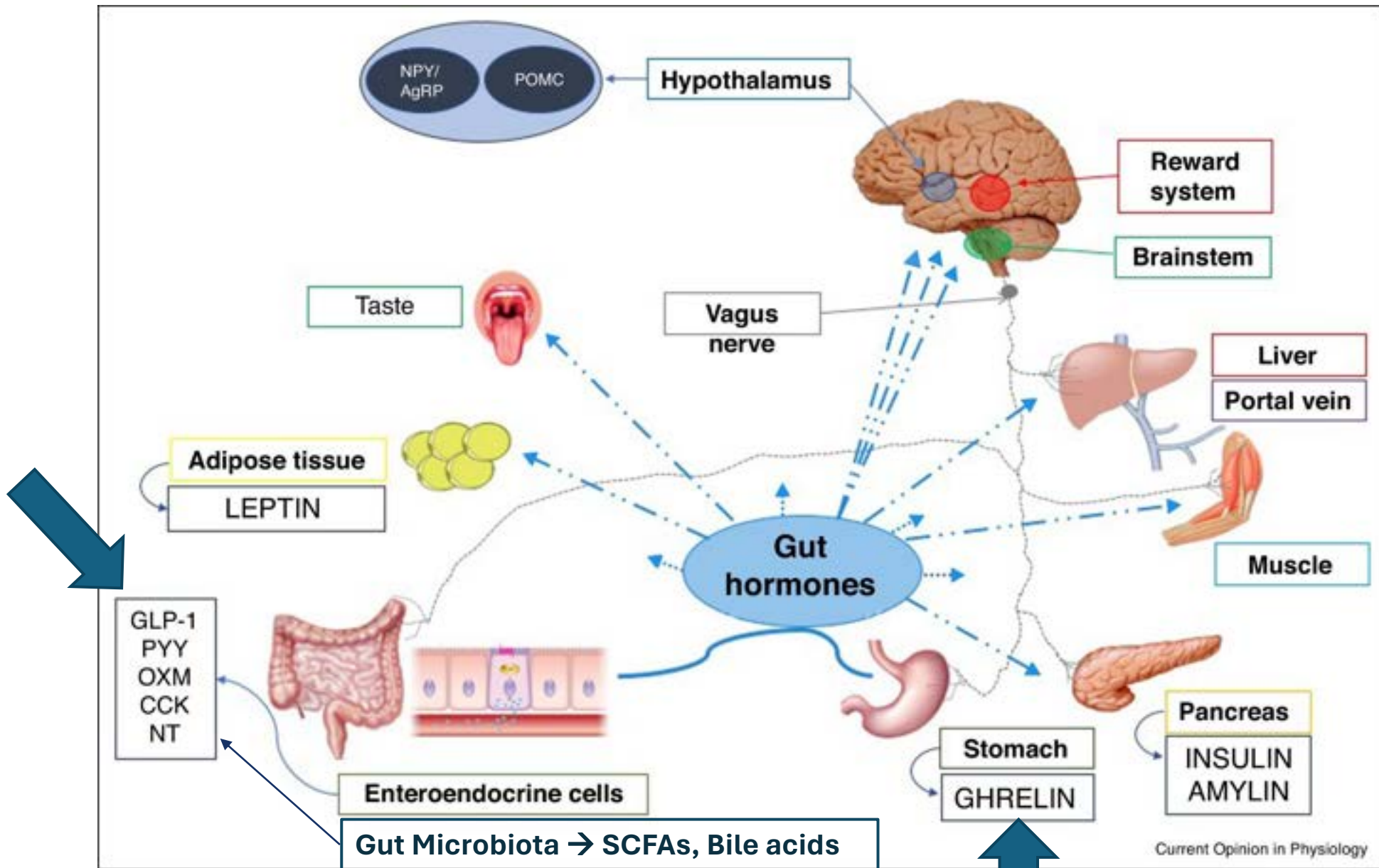
- Victor: 37 year- old
- CC: elevated transaminases on routine labs
- No significant medical history, no surgeries, takes no medications or supplements, no allergies, **family- father with HTN, DM2**, non- contributory social history
- ROS: monthly heartburn
- Exam: 5'6" 153 lbs (BMI 24.2 kg/m²), 122/82, 75, 33" waist
- Exam otherwise unremarkable
- Evaluation: negative viral hepatitis and chronic liver disease serologies, CBC is normal, liver ultrasound suggestive of mild steatosis

What do you offer Victor?

Why Us?

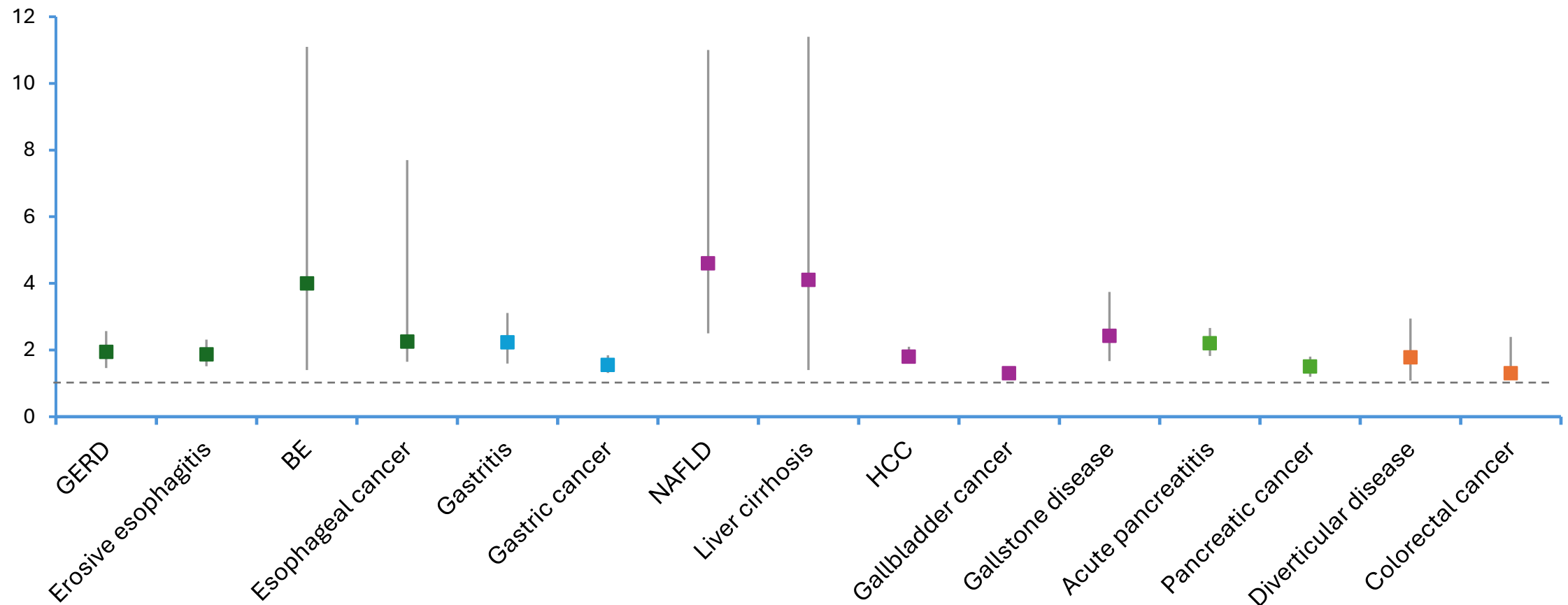
- Obesity has reached pandemic proportions
- Overlap between gut/hepatobiliary physiology and obesity pathophysiology
- Impact of obesity on gut and liver health





Obesity is associated with gastrointestinal/liver disease

Risk (risk ratio or odds ratio) of GI disease



What happens in clinical practice?



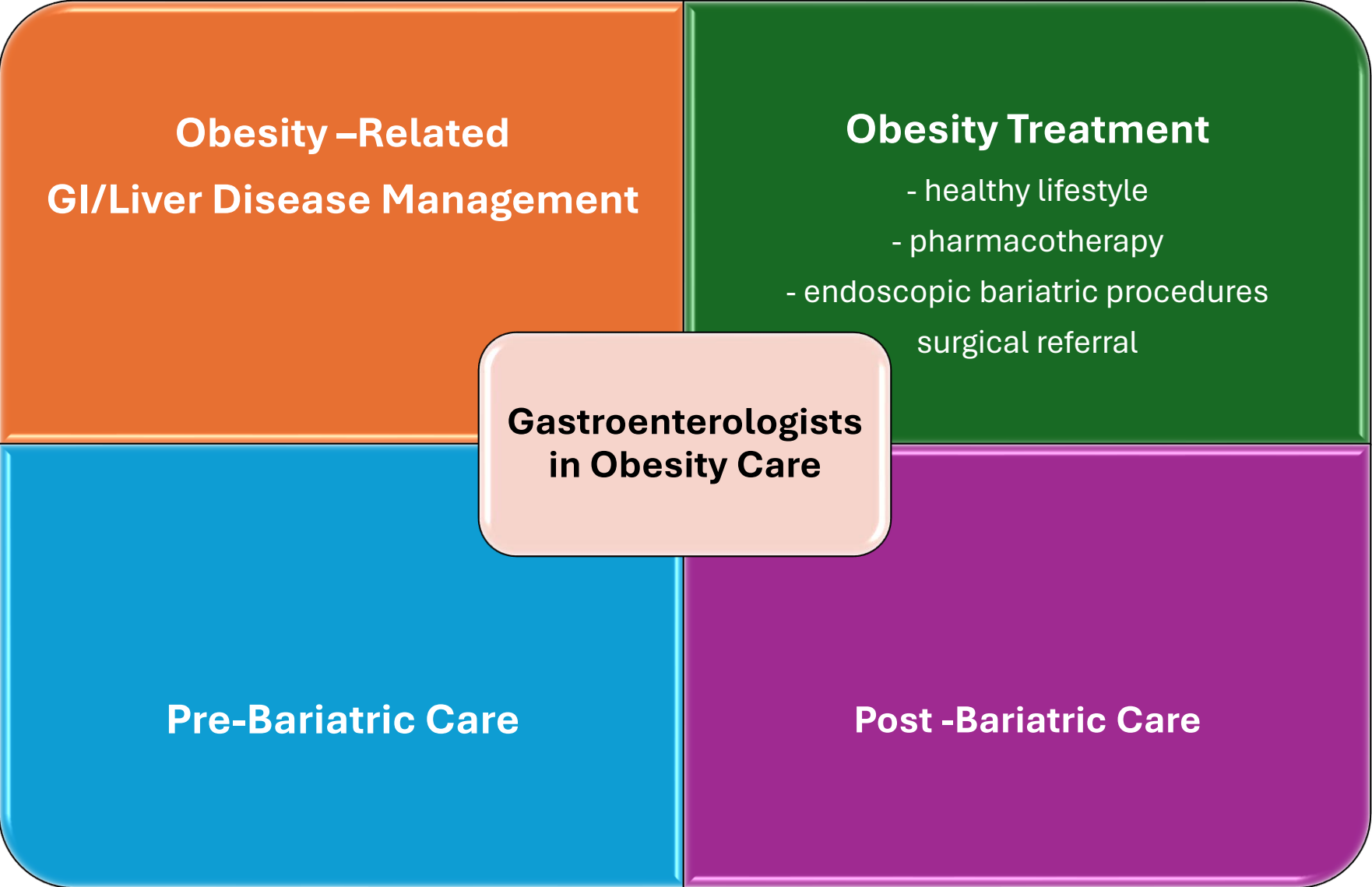
Gastrointestinal comorbidities are some of the most common and earliest to manifest in people living with obesity



Despite patients often seeking care for gastrointestinal problems, obesity can go unaddressed



Gastroenterologists are uniquely positioned to implement weight loss management strategies and refer to specialist services at an earlier stage



Lifestyle Modifications



Diet Modification



Physical Activity



Sleep Hygiene



Stress Reduction

WEIGHT-LOSS DIETS



Factors of success:

- Adherence
- Negative energy balance
- High-quality foods



“Doc, I don’t even eat that much.”

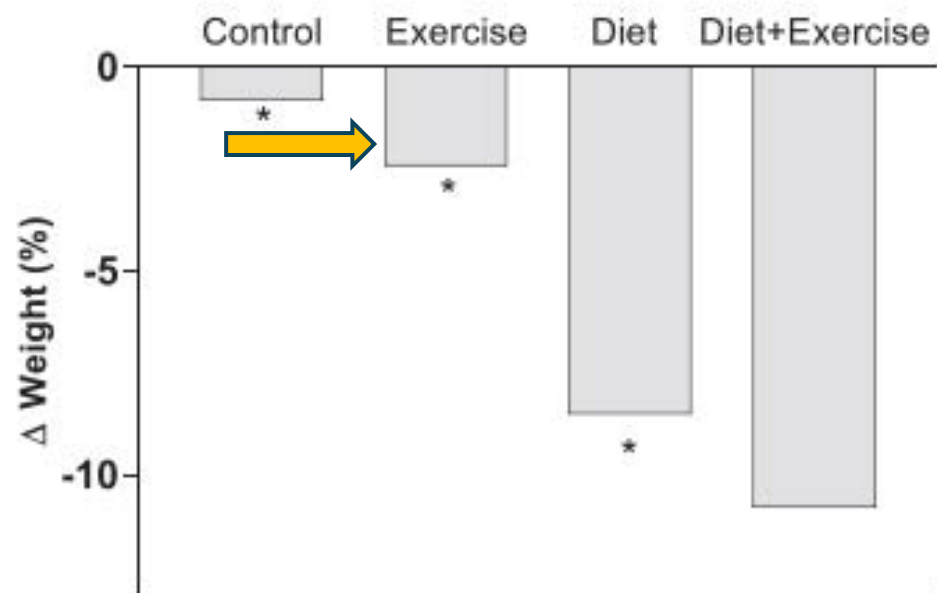
- Diet Quality
 - limit sugary drinks, processed foods
- Portion control
 - plate method
 - avoid seconds
- Mindfulness
 - recognize satiety signals
 - differentiate hunger and cravings
 - implement strategies for cravings (swapping snacks, chewing gum)



Aerobic physical activity amount and expected weight loss. Adapted from the American College of Sports Medicine position stands, "Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults".²⁶



Aerobic Physical Activity Amount	Weight Loss Amount
<150 min per week	No weight loss or minimal weight loss
150–225 min per week	Weight loss of 2 to 3 kg
225–420 min per week	Weight loss of 5 to 7.5 kg
200–300 min per week	Weight maintenance after weight loss



“I’m active, I run around all day.”

- **Effect of exercise is limited without reduced energy intake**
- Aerobic exercise burns energy **and** increases energy requirements
 - hunger → potentially neutralize effect of activity by overeating
- Moderate strength training
 - build muscle mass → increase REE (resting energy expenditure)
- Maximizing energy expenditure
 - larger body mass, large muscle groups, multiple muscle groups
- Limited mobility



“I’m always so tired.”



- Sleep deprivation is linked to altered energy intake
 - subjective increase in hunger, increased energy consumption (~250 kcal/d), weight gain (.34kg)
 - changes in brain activity in response to food stimuli (cognitive control and reward)
 - ** no change in leptin or ghrelin levels or energy expenditure
- Sleep hygiene counseling
 - **link poor sleep to excess weight**
 - set regular sleep time in a relaxing space with minimal distractions
 - avoid daytime naps
 - wear your CPAP

”I’m under a lot of stress.”



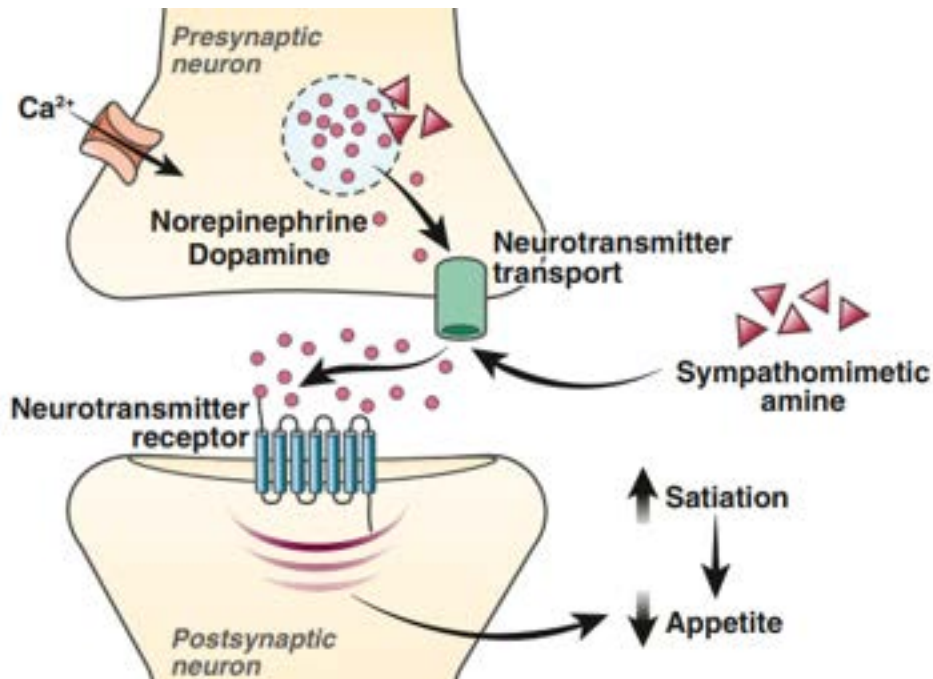
Impact of a stress management program on weight loss, mental health and lifestyle in adults with obesity: a randomized controlled trial

Outcomes	Intervention group (n=22)	Control group (n=23)	P value
Δ BMI	-3.1 ± 0.62	-1.74 ± 0.62	$<0.001^*$
Δ PSS	-11.23 ± 2.39	-1.22 ± 1.31	$<0.001^*$
Δ BDI	-8.50 ± 3.20	-2.09 ± 1.68	$<0.001^*$
Δ red meat	-5.14 ± 2.40	-2.57 ± 1.44	$<0.001^*$
Δ junk food	-10.55 ± 4.19	-8.52 ± 1.70	0.010^*
Δ alcohol	-1.05 ± 1.13	-0.83 ± 1.03	0.582
Δ other beverages	-2.55 ± 1.22	-1.48 ± 1.41	0.007^*
Δ foods with carbohydrate	-2.55 ± 2.91	-0.65 ± 1.90	0.011^*
Δ foods with fat	-2.27 ± 1.83	-1.13 ± 1.18	0.012^*

Stress reduction counseling

- link stress to excess weight
- modalities for stress reduction
 - meditation
 - counseling
 - psychotherapy
 - journaling
 - exercise

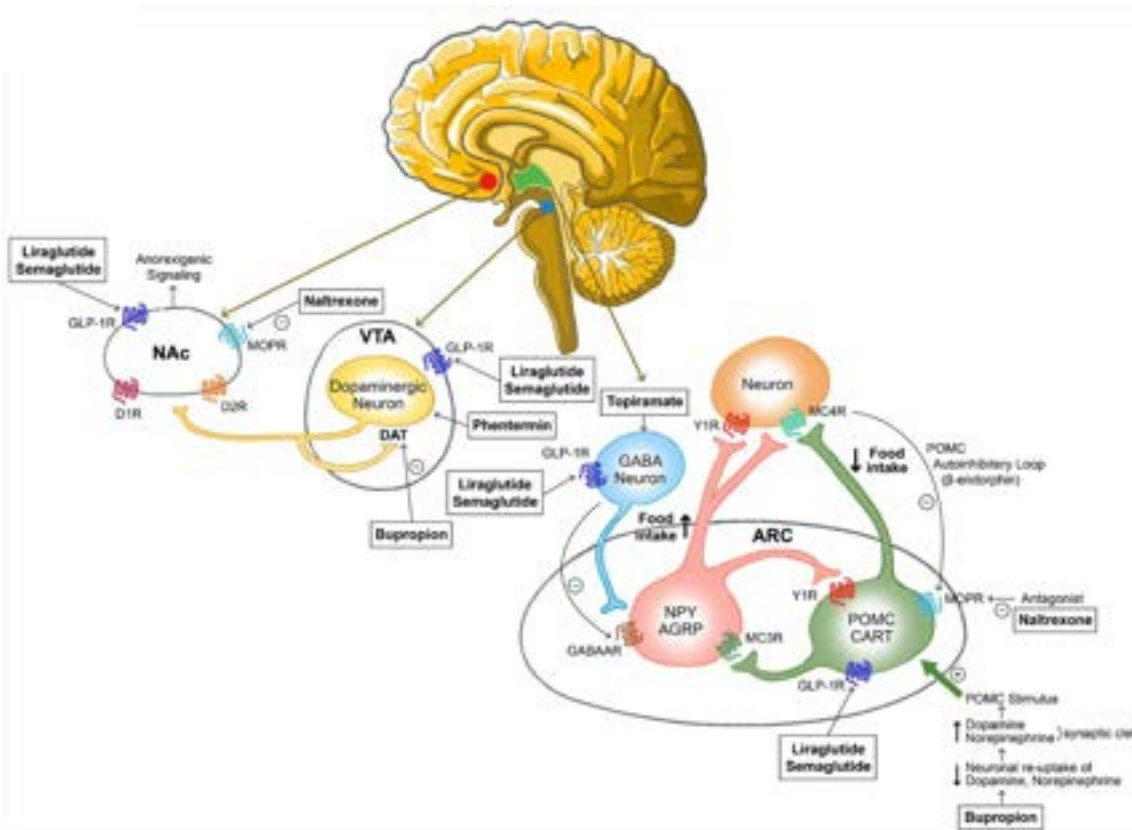
Centrally acting agents



- 15-37.5 mg (Phentermine), 75 mg daily (Diethylpropion)
 - *daily or divided doses (immediate vs. sustained release)
- 3-5 % weight loss
- Clinical considerations
 - contraindicated cardiovascular disease and uncontrolled HTN
 - dose up titration
 - monitor BP and HR
 - combination therapy

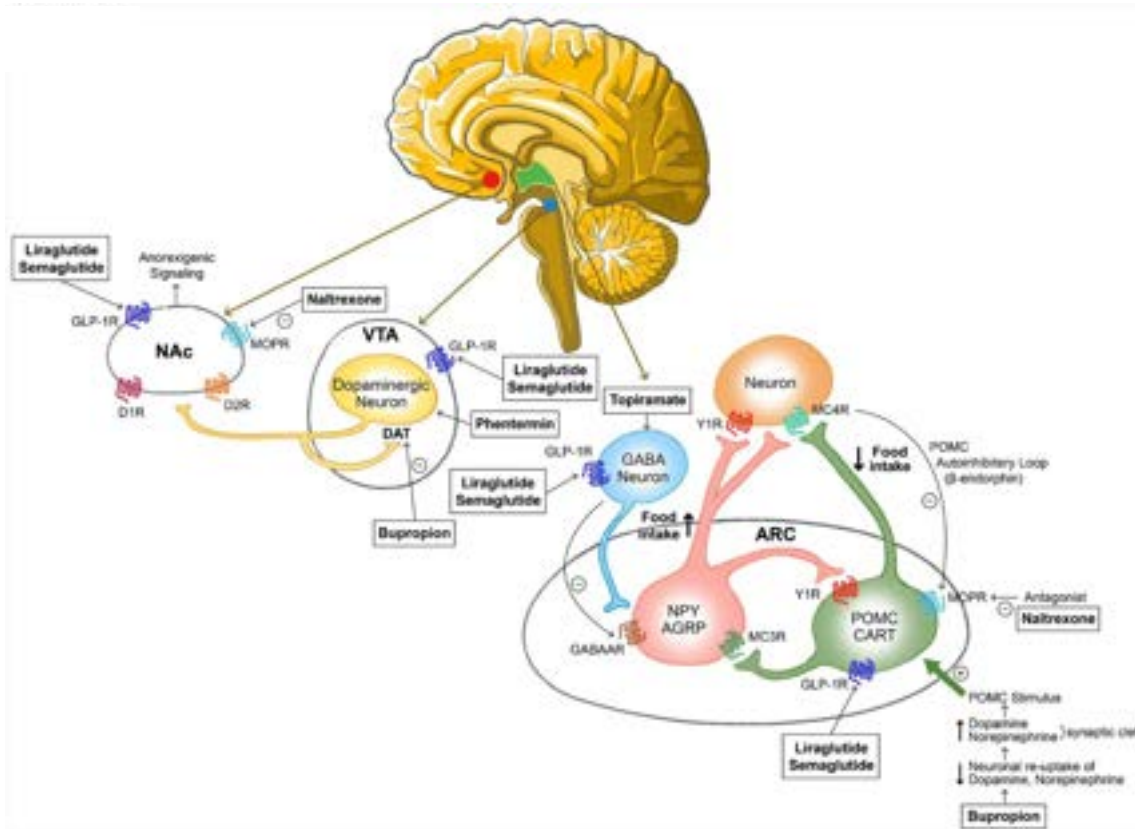
Centrally acting agents

- Phentermine/Topiramate= Qsymia®
- ~8.5% weight loss
- 3.75/23 mg – 15/92mg
- Clinical considerations
 - dual benefit in migraines
 - contraindicated cardiovascular disease and uncontrolled hypertension
 - monitor HR and BP

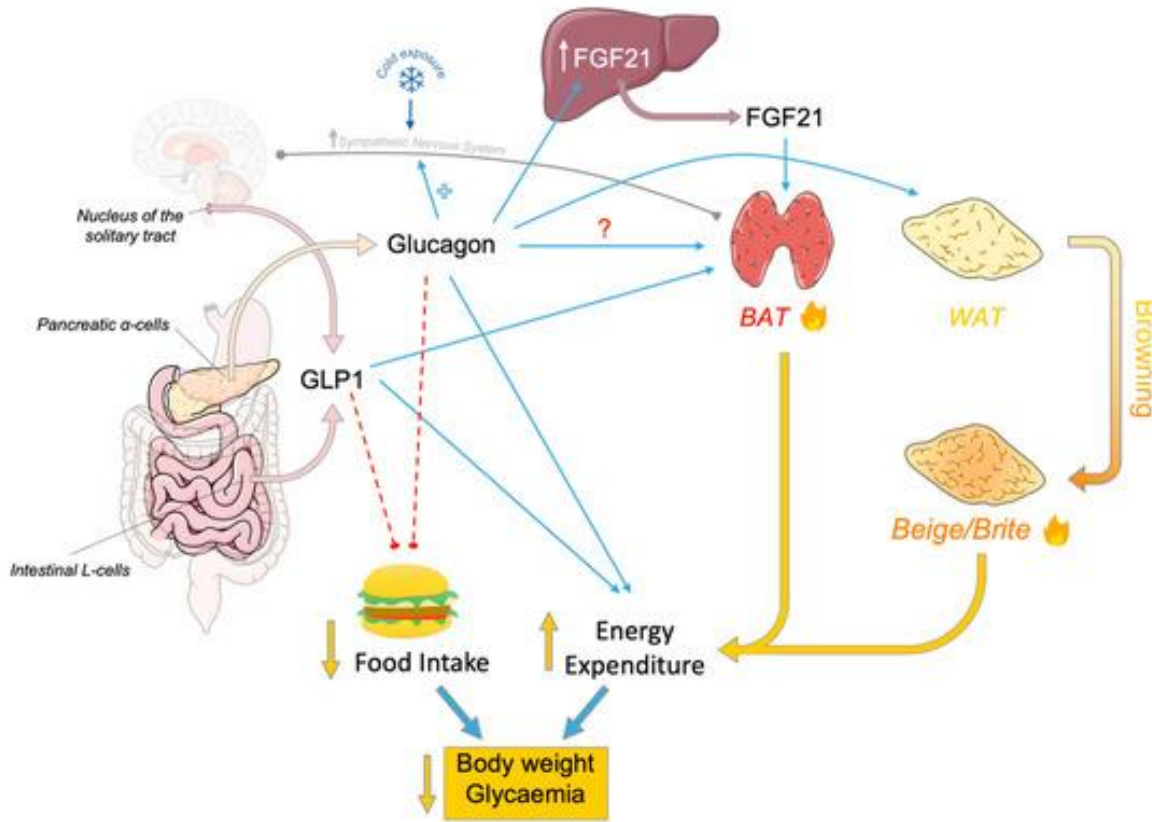


Centrally acting agents

- Naltrexone/Bupropion = Contrave®
- ~3% weight loss
- 9/90mg- 36/360 mg
 - *4 week uptitration
- Clinical considerations
 - binge eating disorder
 - contraindicated in uncontrolled HTN and current opiod use
 - caution with concurrent mood disorder
 - caution in pts with increased risk of seizures

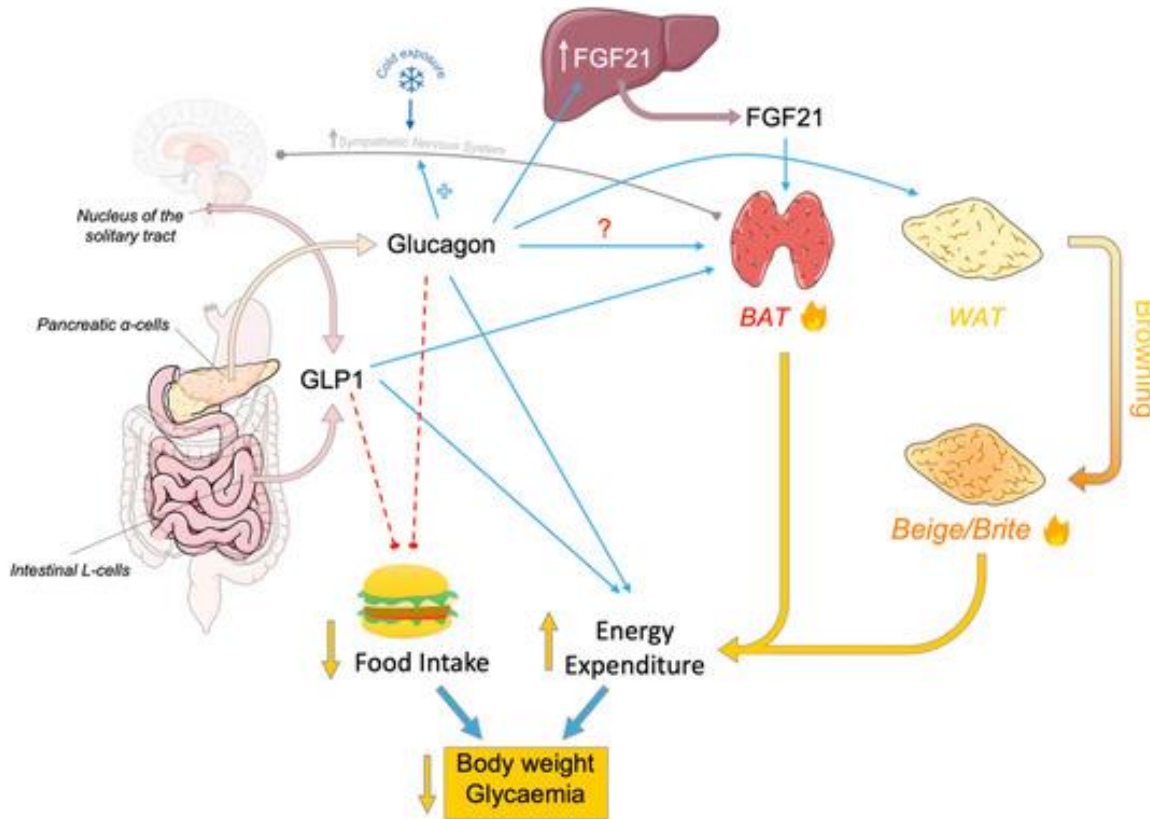


GLP-1 receptor agonists



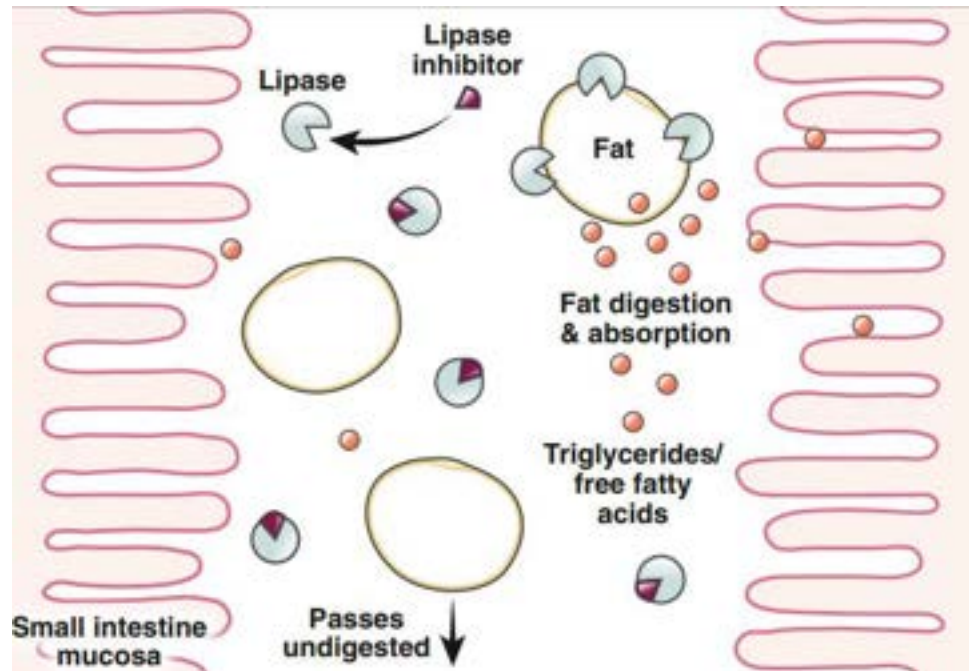
- Liraglutide/Saxenda[®]
 - ~5% weight loss
 - 0.6-3.0 mg (5- week uptitration)
- Semaglutide/ Wegovy[®]
 - ~11% weight loss
 - 0.25mg- 2.4mg (5 -month uptitration)
- Clinical considerations
 - contraindicated in MEN2 and medullary thyroid cancer
 - GI side effects
 - nausea, vomiting, bowel habit changes
 - associated w/increased risk of pancreatitis and gallbladder disease

GLP-1/GIP agonists



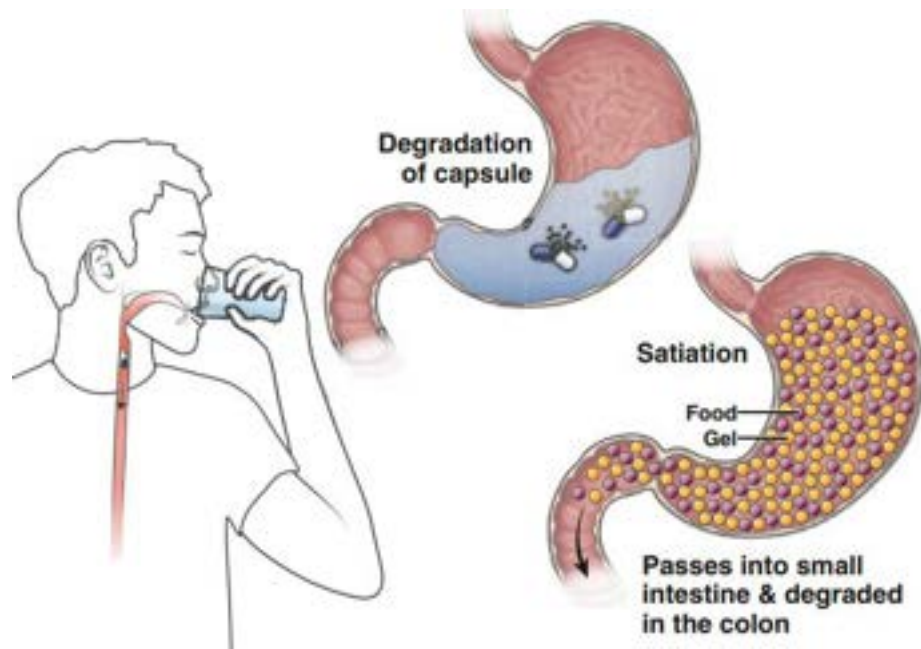
- Tirzepatide/Zepbound®
 - ~15-20 % weight loss
 - 2.5mg- 15mg (5 -month uptitration)
- Clinical considerations
 - contraindicated in MEN2 and medullary thyroid cancer
 - GI side effects
 - nausea, vomiting, bowel habit changes
 - associated w/increased risk of pancreatitis and gallbladder disease

Lipase Inhibitor

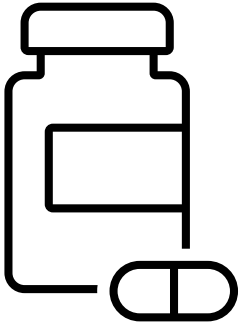


- Orlistat/Xenical, Alli[®]
- 3% weight loss
- 60mg (OTC) and 120mg with meals
- Clinical considerations
 - GI adverse effects directly associated with dietary fat content
 - avoid in patients with chronic diarrhea
 - use with caution in patients with malabsorptive conditions
 - monitor for fat soluble vitamin deficiencies

Super absorbent hydrogel



- Plenity[®]
- 2% weight loss
- 3 pills and 16 ounces of water w/each meal
- Clinical considerations
 - avoid using in altered upper GI tract anatomy
 - ? effect in motility disorders
 - delayed gastric emptying
 - slow/rapid small bowel transit
 - slow colonic transit



How do you choose?

- Obesity-related complications
- Insurance coverage
- Contraindications
 - medullary thyroid cancer, multiple endocrine neoplasia
 - cardiac disease, uncontrolled hypertension, thyroid disease and/or mood disorders

You prescribe... what next?

- Follow-up
- Next steps for non responders and/or plateau



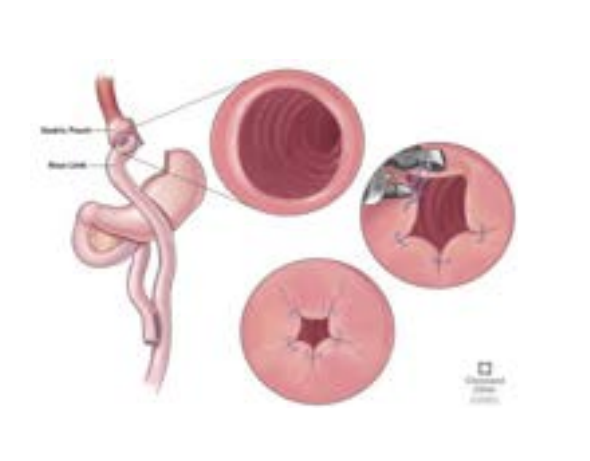
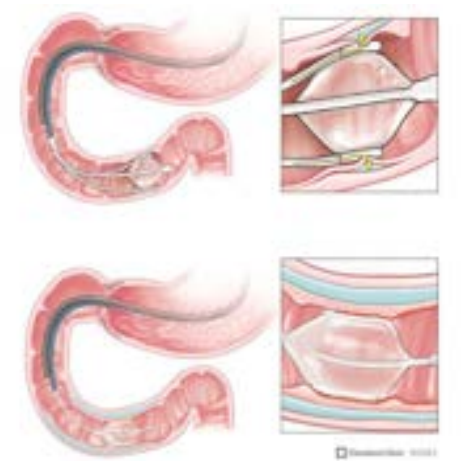
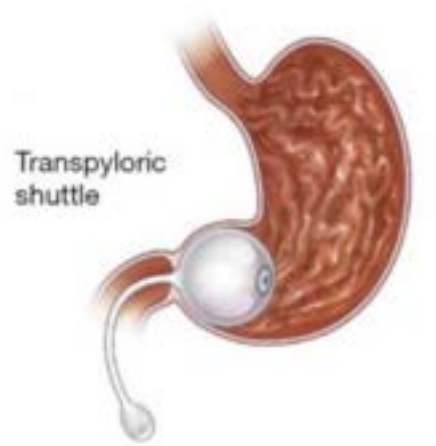
Cleveland Clinic ©2021



POSE procedure



Bariatric Endoscopy



Reja D et al. *Transl Gastroenterol Hepatol.* 2022 Apr 25;7:21.
Bariatric Endoscopy Program Increases Treatment Options for Obesity – Consult QD (clevelandclinic.org)

Metabolic and Bariatric Surgery

Gold standard weight loss treatment at present

- recommended for individuals with BMI ≥ 35 kg/m², regardless of presence, absence, or severity of co-morbidities.
- recommended in patients with T2D and BMI ≥ 30 kg/m².
- should be considered in individuals with BMI of 30–34.9 kg/m² who do not achieve substantial or durable weight loss or co-morbidity improvement using nonsurgical methods.

A small proportion of appropriate patients are referred

Gastroenterologists and Hepatologists should refer appropriate patients



Back to Victor

- 5'6" 150 lbs (**BMI 24.2 kg/m²**) , 122/82, 75, **33" waist**
- Racial and ethnic disparities in overweight/obesity
 - some populations have metabolic complications of obesity at lower BMI thresholds (23–24.78)
 - BMI is imperfect- waist circumference better marker of risk
- Lifestyle modifications should be recommended for Victor with office follow-up to monitor his progress

Final Points

- Obesity is a complex, chronic disorder with altered gut physiology at the center
- Gastroenterologists are uniquely positioned to offer anti-obesity treatment
- Anti-obesity treatment should involve a multi-modality approach including:
 - lifestyle modifications (difficult to sustain alone)
 - anti-obesity pharmacotherapy (safe and effective)
 - endoscopic bariatric procedures (safe, effective, requires endoscopist with expertise)
 - bariatric surgery (gold standard)

Thank you!



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