
Anti Obesity Medications & How they affect the GI tract

Dr. Paul Chandler

Disclosures

None

Today's Goals

Understand obesity and its risks

Learn about weight loss treatments

Learn about anti obesity medications

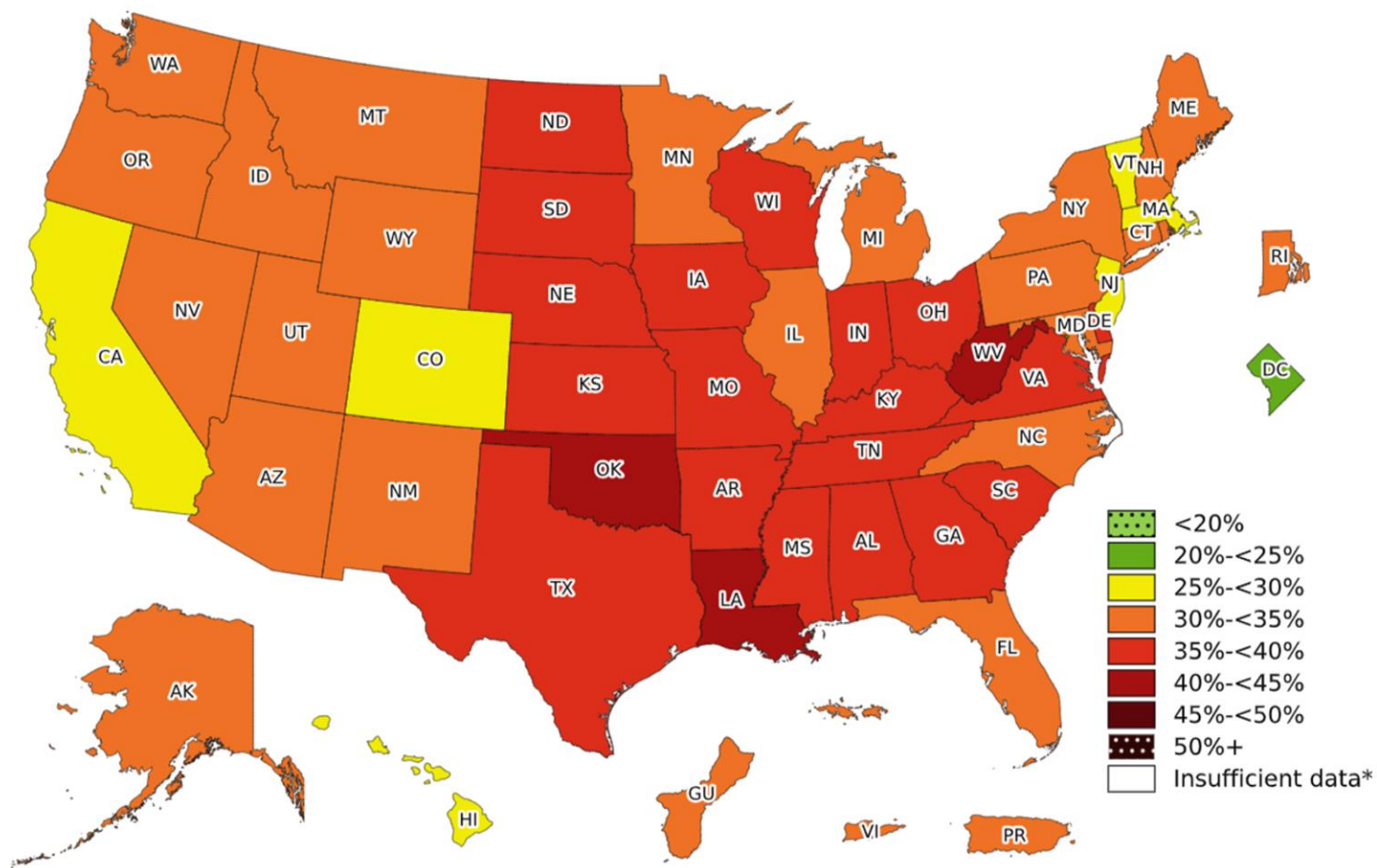
What to expect with patients on these meds

Questions and discussion

Obesity is a common & chronic disease

- **42.4% of U.S. adults have obesity and 9.2% have severe obesity!**

Prevalence[†] of Obesity Based on Self-Reported Weight and Height Among U.S. Adults by State and Territory, BRFSS, 2022



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NEWS

Ozempic class of drugs linked to rare but severe stomach problems, study finds

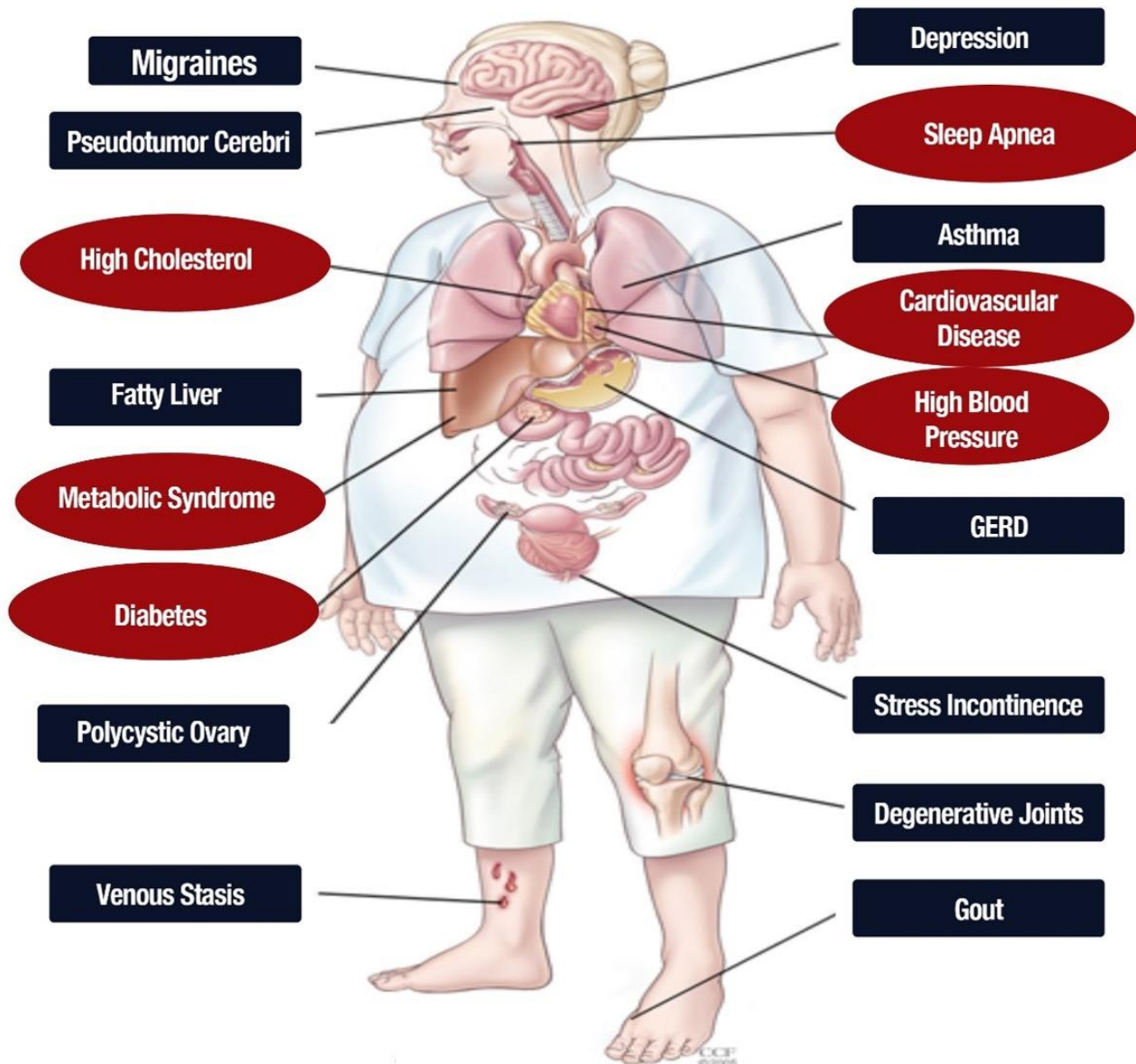
A patient has already sued, alleging ‘severe gastrointestinal issues’ from the Type 2 diabetes treatment, which has become a popular weight-loss drug.

Biology of Fat

Stores excess energy

Communicates with the brain and body

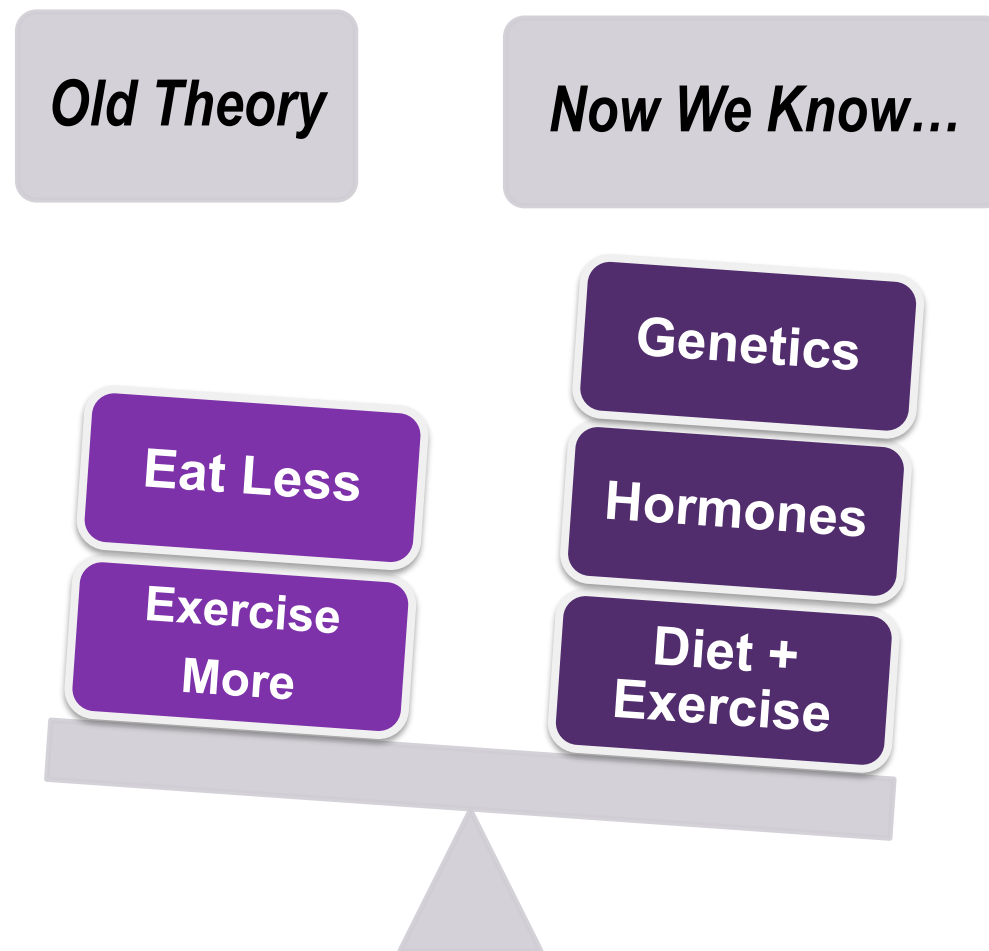
Excess fat → Obesity → Chronic Disease



Risks of Obesity

Overweight and obesity were associated with nearly 1 in 5 deaths (18.2%) in the U.S. according to a study published in the *American Journal of Public Health*.

Weight Loss Treatment



6 FDA approved anti-obesity medications

- **phentermine (Adipex-P, Lomaira)***
- **orlistat (Alli, Xenical)**
- **phentermine/topiramate ER (Qsymia)**
- **naltrexone SR/bupropion SR (Contrave)**
- **liraglutide 3.0 mg (Saxenda)**
- **semaglutide 2.4 mg (Wegovy)**

Phentermine (Adipex, Lomaira)



Stimulant

Cheapest

**6.1% total weight loss
at 1 year on max dose**

Orlistat (Alli, Xenical)



- **Lipase inhibitor**
- **Steatorrhea, fecal urgency, fecal incontinence**
- **Fat-soluble vitamin deficiency**
- **8.8% total weight loss**

Phentermine/Topiramate EX (Qsymia)

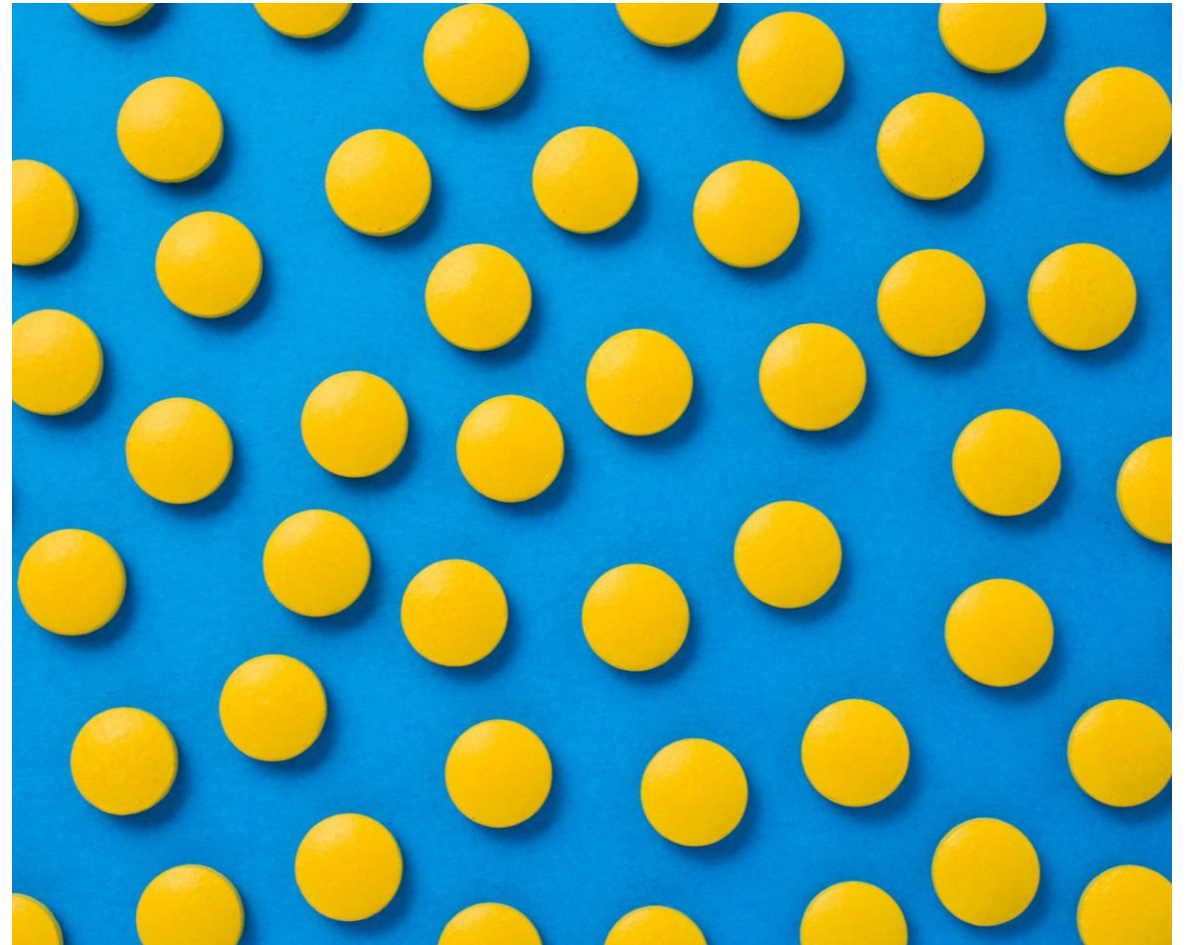


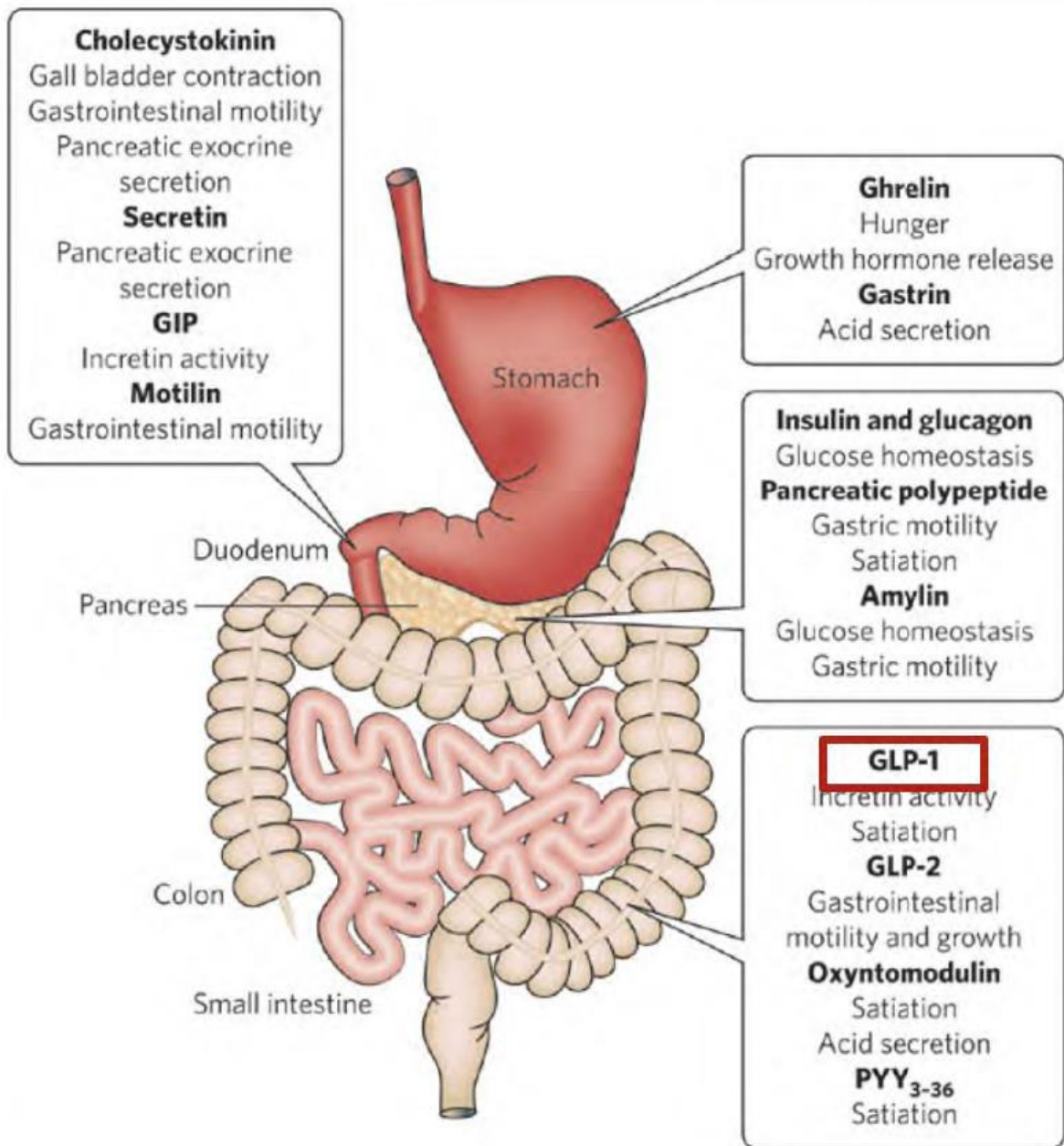
**Stimulant and
neurostabilizer/migraine**

9.8% total weight loss

Naltrexone/Bupropriion (Contrave)

- **Mu (opioid) antagonist**
- **Depression/smoking cessation – dopamine and norepinephrine reuptake inhibitor**
- **Nausea, vomiting, constipation**
- **6.1% total weight loss**





GLP-1

- Glucagon-like peptide-1
- Source: enteroendocrine cells (L cells) – ileum
- Action: pancreas, brain, heart
- Increases beta cell insulin secretion, slows gastric emptying, increases satiety
- **Post-prandial levels are decreased in obesity**
- **GLP-1 analogues:**
 - FDA-approved for treatment of T2D in adults and children
 - **FDA-approved for obesity treatment in adults** (liraglutide & semaglutide)
 - **FDA-approved for obesity treatment in adolescents** (liraglutide)

Liraglutide (Saxenda/Victoza)



GLP-1 analog



0.6-3.0mg subcutaneous daily



8.0% TWL at 1 year (max dose)



Nausea, vomiting, diarrhea, constipation, dyspepsia, abdominal pain



Delayed gastric emptying

Semaglutide (Wegovy/Ozempic/Rybelsus)



GLP-1 Anaglog

Wegovy 0.25-2.4mg subcutaneous weekly

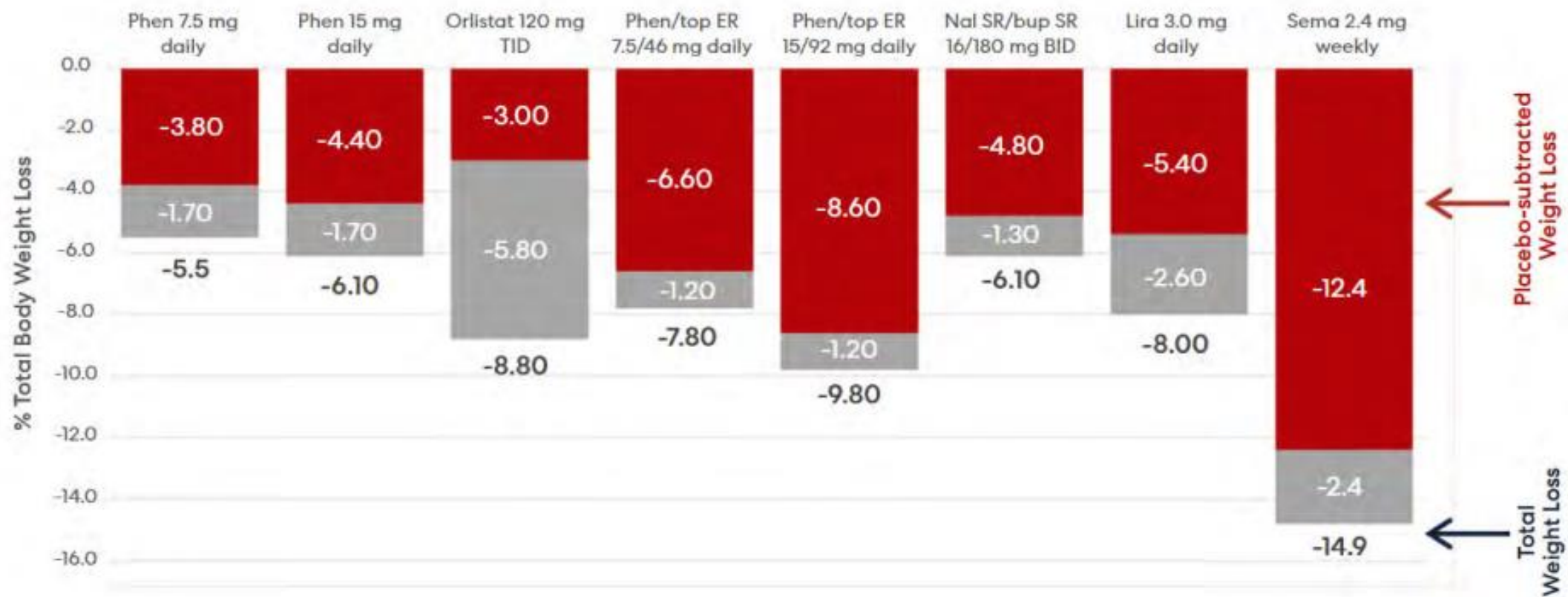
Ozempic 0.25-1.0mg subcutaneous weekly

14.9% total weight loss

**Nausea, vomiting, diarrhea, constipation,
dyspepsia, abdominal pain**

Delayed gastric emptying

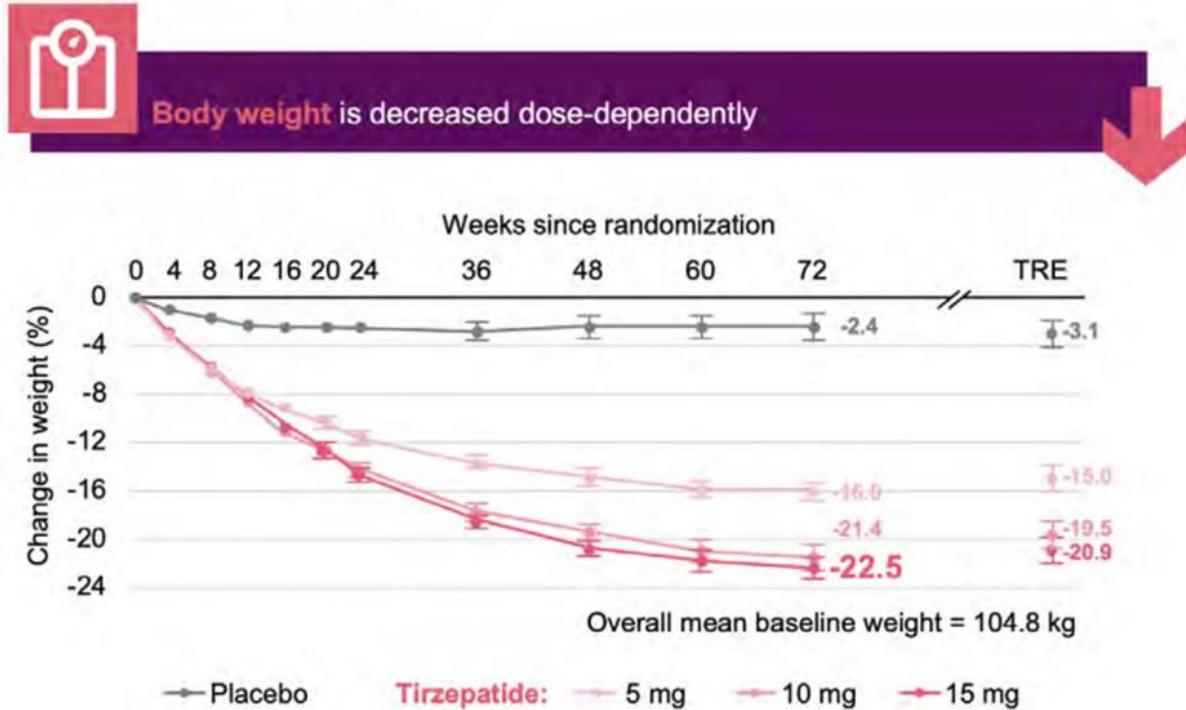
FDA approved anti-obesity medications



ITT analysis

Phentermine: 28 week study
 Semaglutide: 68 week study
 All other studies: 52-56 weeks

Tirzepatide (Mounjaro)



GLP-1 and GIP analogue

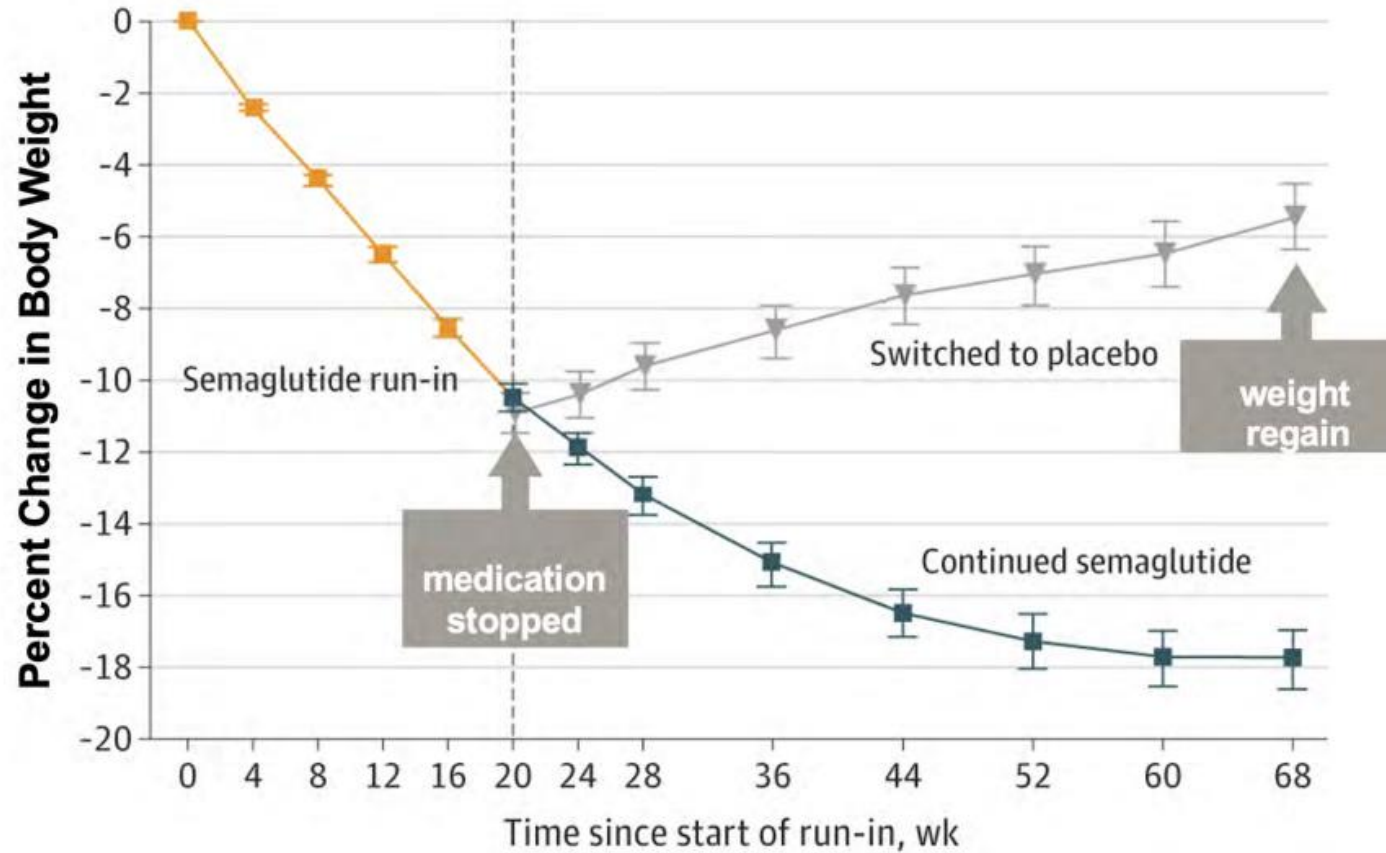
Off label for obesity treatment

5-15mg subcutaneous weekly

Nausea, vomiting, diarrhea, constipation

Delayed gastric emptying

Weight recurrence after stopping anti obesity medication



Rubino, et al, JAMA, March, 2021

Yale SCHOOL OF MEDICINE

If patients can afford it and get it

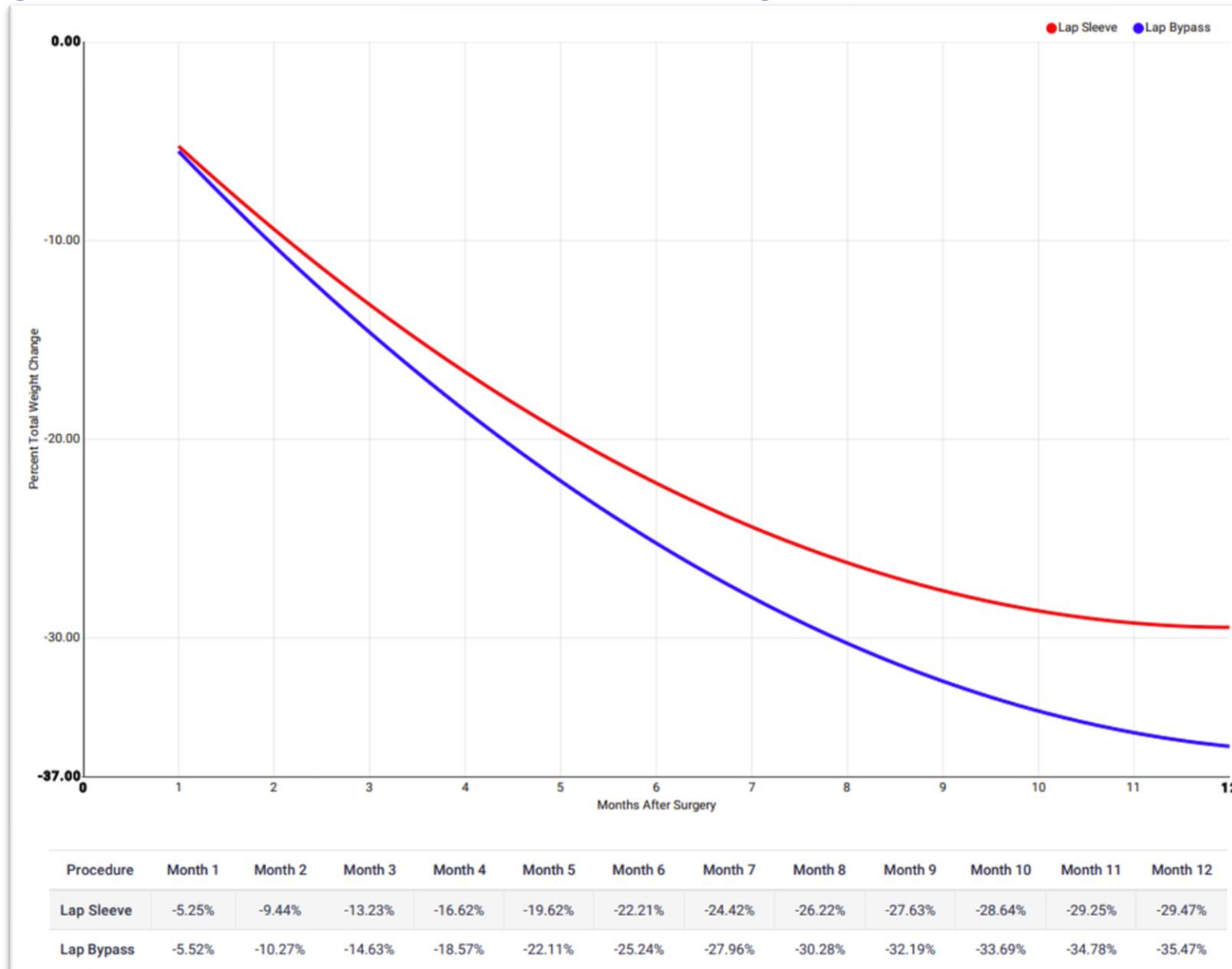
Drug	Average Retail Price (per month)*	Lowest Retail Price (per month)*
Metformin (120 tablets)	\$32.66	\$3.80
Empagliflozin	\$681.64	\$578.51
Canagliflozin	\$676.14	\$582.89
Dulaglutide	\$1,039.85	\$809.91
Victoza (liraglutide 1.8 mg)	\$1,116.23	\$1,081.35
Saxenda (liraglutide 3.0 mg)	\$1,608.12	\$1,304.68
Rybelsus (PO semaglutide)	\$1,065.92	\$907.22
Ozempic (semaglutide 2.0 mg)	\$1,015.97	\$907.22
Wegovy (semaglutide 2.4 mg)	\$1,718.50	\$1,304.68
Tirzepatide	\$1,179.85	\$991.16

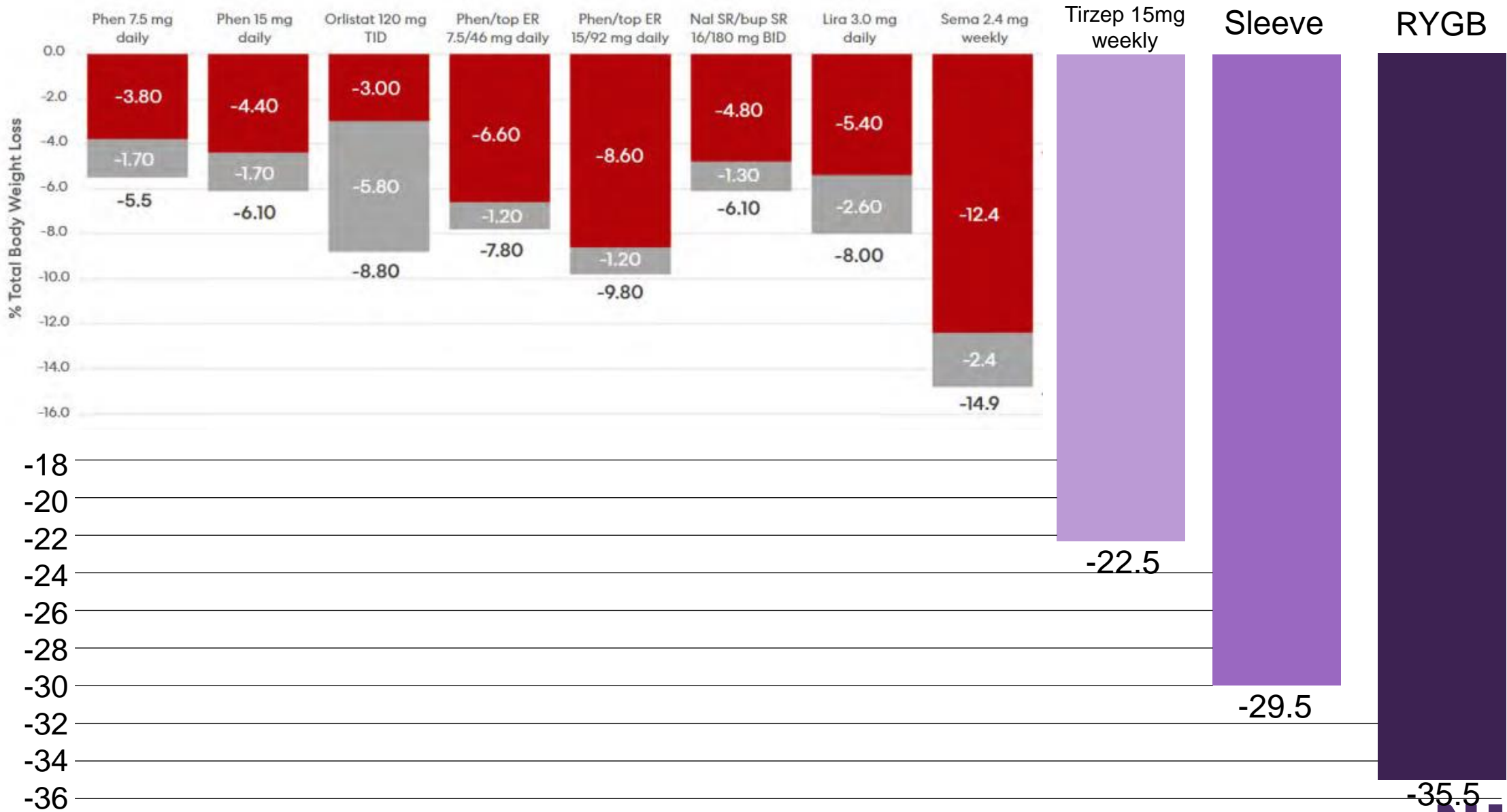
American Society of Anesthesiologists Guidelines


Patients on GLP-1 agonists

- **Hold day of the procedure (daily formulations) or 1 week prior (weekly formulations)**
- **If no GI symptoms and med held accordingly, proceed as usual**
- **If GI symptoms are present, consider delaying elective procedure or treat as ‘full stomach’**
- **If not held as advised and no GI symptoms, consider delaying elective procedure or treat as ‘full stomach’**
- **There is no evidence to suggest optimal duration of fasting for patients on GLP-1 agonists, so follow current guidelines**

% Total Weight loss after bariatric surgery







“The colonoscopy prep is going really well actually. I’ve lost like 5 pounds today.”

“The future of obesity treatment is multidisciplinary. It will include a combination of diet, exercise & behavioral counseling, as well as medication & surgery.”

Thank you

Dr. Paul Chandler