Obesity as a Chronic Disease: Treatment Using New Anti-Obesity Medications

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Welcome

Today's Moderator

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- Academy Foundation Board member
- Former Program Director, University of CA Weight Management Program
  - Co-editor, *Health Professionals Guide to Obesity and Weight Management*
Three-Part Webinar Series
New Anti-Obesity Medications and the Critical Role of Nutrition and the RDN

April 18th
Obesity as a Chronic Disease and Treatment Using New Anti-Obesity Medications

May 15th
The Role of the RDN to Optimize Short- and Long-term Use of Anti-Obesity Medications

June 4th
Anti-Obesity Medications: An Interdisciplinary Panel Discusses Cases

All webinars will be recorded for free on-demand viewing at eatrightpro.org.
These webinars do not provide CPE credit.

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Speaker’s Bureau: Novo Nordisk, Lilly
Stock Options: Epitomee, Calibrate, Roman, Scientific Intake, Xeno
DSMB: setmelanotide (Rhythm, IQVIA) (2); tirzepatide (Lilly) (1)
At the end of the presentation, attendees will be able to:
1. describe the etiology and pathogenesis of obesity;
2. discuss why obesity is a chronic disease;
3. communicate the physiology of weight loss and importance of safe weight loss; and
4. relate the rationale and principles for using medications as adjuncts to lifestyle intervention as a pathway to health benefits;
   - Katherine to continue…
What causes obesity and why does it harm us?

If Obesity Is a Disease, What Is the Etiology?

- Obesogenic environment
- Genetic susceptibility
Genetic Contribution to Body Habitus

If Obesity Is a Disease, What Is the Etiology?
**Obesity and Social Determinants of Health**

Obesity risk associated with...

- Low income
- Low education
- Food insecurity
- Physical activity
- Social & societal stressors
- Eating behavior
- Diet
- Minority status

US Centers for Disease Control and Prevention.

Most people gain weight over early and mid adulthood and lose weight (lean mass) beginning in mid-60’s.

Complex Peripheral Signals are Integrated Into CNS Systems to Regulate Body Weight

Peripheral signals are released by pancreas, gastrointestinal system, and adipose tissue.1,2

Brain systems (homeostatic and reward) receive and integrate peripheral and other CNS signals (e.g., dopamine, serotonin).1,2

Peripheral signals are relayed to brain systems via blood and Vagus Nerve.1,2


Integrated CNS Pathways Play a Key Role in Regulating Eating Behavior, Appetite, Cravings, and Body Weight

Homeostatic System
Hunger / Satiety
- Primarily driven by the arcuate nucleus of the hypothalamus
- Detection and integration of energy state information
  - Leptin, insulin
- Lateral hypothalamus projects to the VTA and receives input from the nucleus accumbens

Hedonic or Reward System
- Dopaminergic pathways from the VTA or substantia nigra to regions such as:
  - Striatum (movement, reward salience)
  - Nucleus accumbens (reward, addiction)
  - Prefrontal cortex (decision making, executive function)
  - Amygdala (memory, emotion)

CNS, central nervous system; VTA, ventral tegmental area.

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Definition of Obesity

In ICD codes, obesity is defined by the body mass index (BMI)

Formula: weight (kg) / [height (m)]²

For adults age ≥20 years, BMI is interpreted using standard weight status categories. These apply to all body types and ages

<table>
<thead>
<tr>
<th>Body Mass Index (BMI) Definitions</th>
<th>Obesity Classes</th>
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</thead>
<tbody>
<tr>
<td><strong>BMI</strong></td>
<td><strong>Class</strong></td>
</tr>
<tr>
<td>Below 18.5</td>
<td>Class I</td>
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<tr>
<td>18.5-24.9</td>
<td>BMI</td>
</tr>
<tr>
<td>25.0-29.9</td>
<td>30.0-34.9</td>
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<td>30.0 and above</td>
<td>Class II</td>
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<td></td>
<td>Class III</td>
</tr>
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<td>≥40.0</td>
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<td>Weight Status</td>
<td>Severity</td>
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<td>Mild</td>
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<tr>
<td>Normal or Healthy Weight</td>
<td>Moderate</td>
</tr>
<tr>
<td>Overweight</td>
<td>Severe</td>
</tr>
</tbody>
</table>


Limitations of BMI

- BMI is easy to measure and inexpensive.
- BMI does not directly assess body fat.
- AMA suggests that it be used in conjunction with other valid measures of risk
- waist circumference
How to make a clinical diagnosis of obesity

Obesity is defined by the World Health Organization (WHO) as *excess abnormal body fat, which may impair health*. Body mass index (BMI) is a good population measure of body fat and an imperfect measure in individuals.

### For Europids:
- Overweight BMI >25 kg/m²
- Obesity BMI >30 kg/m²
- Waist circumference: 35 inches for women & 40 inches for men

### For Asians:
- Overweight BMI >23 kg/m²
- Obesity BMI >25 kg/m²
- Waist circumference: 31.5 inches for women & 35 inches for men

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Comorbidities Associated with Obesity

- Pulmonary disease
- Obstructive sleep apnea
- Obstructive sleep apnea
- Hypoventilation syndrome
- Nonalcoholic fatty liver disease
  - Steatosis
  - Steatohepatitis
  - Cirrhosis
- Gall bladder disease
- Gynecologic abnormalities
  - Abnormal menses
  - Infertility
- Polycystic ovarian syndrome
- Urinary incontinence
- Osteoarthritis
- Skin
- Idiopathic intracranial hypertension
- Stroke
- Cataracts
- Coronary heart disease
- Diabetes
- Dyslipidemia
- Hypertension
- Cancer
  - Breast, uterus, cervix, colon, esophagus, pancreas, kidney, prostate
- Phlebitis
- Venous stasis
- Gout

What happens when we exceed the capacity for normal storage of body fat or have impaired storage of healthy fat?

**CAPACITY TO STORE EXCESS ENERGY**

- **NORMAL**
  - INCREASED SUBCUTANEOUS FAT

- **IMPAIRED**
  - Unfavorable genotype
  - Maladaptive response to stress
  - ECTOPIC FAT DEPOSITION
  - VISCERAL FAT DEPOSITION


Subcutaneous, Visceral and Intra-abdominal fat depots

Metabolically unhealthy adipose tissue

- Large cell size
- Dense extracellular matrix
- Presence of inflammatory cells
- Helmet cells, dying fat cells
- Increased production of unfavorable cytokines
  - Pro-inflammatory
  - Pro-thrombotic
  - Pro-atherogenic
  - Pro-insulin resistance

Important Secretory Products of White Adipose Tissue

- Visceral and ectopic white adipose tissue has a more UNFAVORABLE physiologic profile, produces more pro-inflammatory and pro-thrombotic cytokines.

LOCATION, LOCATION, LOCATION:
- Ectopic and visceral fat can have important local and regional effects.
Location, Location, Location

- Visceral and ectopic (muscle, liver, pancreas, epicardial) adipose tissue produces more pro-inflammatory and pro-thrombotic cytokines.


Excess/Dysfunctional Adipose Tissue is a Driver of Cardiovascular Disease, Mediated Through CKM Syndrome

How does obesity drive other diseases?

Burden of excess fat – biomechanical effects
- Knee arthritis
- Obstructive sleep apnea
- GERD
- Urinary incontinence
- Others

Stigma

Why can’t we just eat less and exercise more? Why is obesity a chronic disease?
The Body Weight Set Point / Settling Point is the Reason Obesity is a Chronic Disease.

Normal Weight

New Normal Weight

New Normal Weight

Biologic Responses to Weight Loss – Energy Intake

Average Weight and Leptin changes baseline to week 62.

The inpatient weight loss program was started at week 0 and completed at week 10; outpatient counseling continued until week 62.

Gut Hormone changes:
- Ghrelin
- PYY, CCK, GLP-1, insulin, amylin

Changes in Appetite Signals After Weight Reduction

Mean fasting and postprandial levels of some peripheral signals at baseline and 62 weeks

Appetite Stimulating Hormone was Higher

Appetite Suppressing Hormone was Lower

Ghrelin, pg/mL

0 100 200
0 30 60 90 120 180 240
Postprandial Time, min

Week 62
Baseline

Peptide YY, pg/mL

0 20 40
0 30 60 90 120 180 240
Postprandial Time, min

Week 62
Baseline

Amylin, pg/mL

0 100 200
0 30 60 90 120 180 240
Postprandial Time, min

Week 62
Baseline

CCK, fmol/mL

0 2 4
0 30 60 90 120 180 240
Postprandial Time, min

Week 62
Baseline


Biologic and Physiologic Adaptations to the Weight Reduced State

- Alterations in appetite regulation
  - ↑ Ghrelin (hunger hormone) and ↓ GLP-1, GIP, CCK, PYY, insulin, and amylin (satiety hormones)

- Alterations in energy expenditure
  - ↓ Resting energy expenditure
  - ↑ Muscle efficiency
  - Related to ↓ leptin levels

Changing our way of thinking: Obesity is less about will power and more about strong biologic forces making weight loss difficult and regain easy.

Action needed: discuss the biology of weight regulation with your patients.
How much weight loss is needed? What’s the rationale for medications?

The good news: Weight loss seems to reduce visceral adipose tissue preferentially

Before weight loss
(95 kg, BMI 32)

After 10-kg–weight loss
(85 kg, BMI 29)

The DPP experience: Impact of modest weight loss on the risk of diabetes

![Graph showing the relationship between change in weight from baseline and diabetes incidence rate per 100 person-years.](adapted-from-hamman-rf-et-al-diabetes-care-2006-29-2102-7)

**Modest Weight Loss Provides Clinical Benefits.**

More Weight Loss Provides More Clinical Benefit. 1-3

Multiple Mechanisms for Health benefits

Weight Loss Produces Health Benefits

Medications Have Weight-Independent Effects

SELECT Trial – Cardiovascular Efficacy

CV Death, Nonfatal MI, or Nonfatal Stroke

Primary Cardiovascular Composite Endpoint

Hazard ratio, 0.80 (95% CI, 0.72 to 0.90)
P<0.001 for superiority

Placebo – 701 events (8.0%)
Semaglutide – 569 events (6.5%)

GLP-1 Has Pleiotropic Effects

Influential study Results (and Promised results)

- SELECT: 20% reduction in MACE in persons with established CVD.¹
- STEP HFpEF: Semaglutide (2.4 mg) in patients with heart failure and preserved ejection fraction led to larger reductions in symptoms and physical limitations, greater improvements in exercise function, and greater weight loss than placebo.²
- FLOW: Study of semaglutide 2.4 mg in chronic kidney disease stopped early because it met pre-specified evidence of benefit.³
  - Prior, a post hoc analysis of the SUSTAIN-6 and LEADER trials, treatment with semaglutide or liraglutide slowed eGFR decline and reduced the risk of substantial loss of kidney function in patients with type 2 diabetes.⁴

Can weight loss be bad for you? Are there safety issues with weight loss *per se*?

Patients may lose 5 pounds or more in the first week. This exceeds the energy deficit. Why??????

- Glycogen depletion causes water loss. Every molecule of glycogen is stored with 2 molecules of water.
- Fat is anhydrous.
- Initial weight loss is loss of both water and fat.
- Weight loss slows over time - liver glycogen is repleted.
- Over time, weight loss is reflective of the energy deficit.
Consequences of Negative Energy Balance

• Acute Effects
  • Reduction in insulin needs
    • Sulfonylureas and insulin pose danger of hypoglycemia
  • Depletion of glycogen stores
    • Rapid water mobilization, diuresis
    • Diuretics may pose danger of hypotension
  • Diuresis and electrolyte imbalance
    • Cardiac arrhythmia
  • Constipation

Safety During Weight Loss

STOP OR REDUCE THE INSULIN SECRETAGOGUES FOR PATIENTS WHO ARE IN NEGATIVE ENERGY BALANCE

STOP OR REDUCE THE DIURETICS FOR PATIENTS WHO ARE LOSING WEIGHT RAPIDLY

MONITOR THE PATIENT AND INTERVENE IF LOSS IS TOO RAPID
Consequences of Rapid Weight Loss

- Lack of high quality protein: heart failure and sudden death associated with starvation diets (maintain intake >500 kcal/d - >900 kcal/day is preferable - and use high quality protein source)
- Gall bladder disease
- Rapid reduction in glycemia may exacerbate retinopathy
- Loss of lean body mass

Weight Loss = Fat Loss + Lean Loss

Anti-Obesity Medications and the Critical Role of RDNs

Learning Objectives

At the end of the presentation, attendees will be able to:

1. describe the etiology and pathogenesis of obesity;
2. discuss why obesity is a chronic disease;
3. communicate the physiology of weight loss and importance of safe weight loss; and
4. relate the rationale and principles for using medications as adjuncts to lifestyle intervention as a pathway to health benefits;

5. understand which anti-obesity medications (AOMs) are currently available
6. recognize which patients are good candidates for AOMs
7. describe the risks, benefits, considerations and barriers associated with AOMs
8. appreciate how RDNs are a critical part of the care team for patients on AOMs
Consider an Anti-Obesity Medication When…

Prescribers: physicians, physician assistants, nurse practitioners, some pharmacists

Seven Medications are FDA-Approved

- **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)**
- **tirzepatide** (Zepbound)

*other sympathomimetic amines also available – minimal data, prescribed less

**approved for pediatric populations
The Oldest Med: Phentermine

- Brand names: Adipex-P, Lomaira

- Approved 1959 (short-term use = 3 months)
- Norepinephrine-releasing agent
- Dosing: 8, 15, 37.5 mg

Weight loss at 28 weeks
- 30 mg = 6.1%
- 15 mg = 5.5%
- Lifestyle alone = 1.7%

Schedule IV controlled substance

**Adverse events**
- increased heart rate
- headache
- insomnia
- dry mouth

Caution
- pregnancy
- cardiovascular disease
- hyperthyroidism
- glaucoma


Orlistat

Brand names: Alli (OTC)  Xenical (Rx)
- 60 mg TID
- 120 mg TID

- Approved 1999, lipase inhibitor

**Adverse events**: abdominal discomfort, steatorrhea, fecal urgency, fecal incontinence

**Special considerations**: constipation; psyllium fiber

**Decreases absorption**:
- vitamins A, D, E, K → take multivitamin
- meds → cyclosporine, levothyroxine, warfarin, antiepileptics

**Phentermine/topiramate ER**

- Brand name: Qsymia
- Approved 2012
- phentermine = norepinephrine-releasing agent

**Weight loss at 56 weeks**

- 9.8% - 15/92 mg daily
- 7.8% - 7.5/46 mg daily
- 1.2% - lifestyle alone

Schedule IV controlled substance

**Adverse events:**
increased heart rate, headache, insomnia, paresthesia

**Special considerations:** migraines

**Caution:**
cardiovascular disease, hyperthyroidism, glaucoma, nephrolithiasis, pregnancy

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**Naltrexone SR/bupropion SR**

- Brand name: Contrave
- Approved 2014

naltrexone = opioid receptor antagonist
- opioid dependency (1984)
- alcohol addiction (1994)

bupropion = dopamine and norepinephrine reuptake inhibitor
- depression (1985)
- smoking cessation (1997)

**Weight loss at 56 weeks**

- 6.1% = 16/180 mg (2 tablets) BID
- 1.3% = lifestyle alone

**Adverse events:** headache, nausea, vomiting, constipation

**Caution:** pregnancy, pain, opioid use, seizures, uncontrolled hypertension

**Special considerations:** food cravings, addictive food behaviors, depression, desire to quit smoking or reduce alcohol consumption
Liraglutide 3.0 mg

Brand name: **Saxenda**

- Approved 2014
- **Victoza** = 1.8 mg daily, approved 2010 for diabetes, 2017 for cardiovascular risk reduction
- GLP-1 receptor agonist
- 0.6 – 3.0 mg subcutaneous injection once daily

**Weight loss at 56 weeks**
- 8.0% = 3.0 mg daily
- 2.6% = lifestyle alone

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Semaglutide 2.4 mg

Brand name: **Wegovy**

- Approved 2021 for weight, **2024 for CV risk reduction**
- **Ozempic** = 1-2 mg weekly, approved 2017 diabetes, 2020 for CV risk reduction)
- GLP-1 receptor agonist
- 0.25 – 2.4 mg subcutaneous injection once weekly

**Weight loss at 68 weeks**
- 14.9% = 2.4 mg weekly
- 2.4% = lifestyle alone
**Semaglutide Trials**

- Change in KCCQ-CSS at 52 Wk
- Change in Body Weight at 52 Wk

**Tirzepatide**

**Brand name:** Zepbound

- Approved 2023
- **Mounjaro** = same dosage, approved 2022 for diabetes
- GLP-1/GIP co-agonist
- 2.5 – 15 mg subcutaneous injection once weekly

**Weight loss at 72 weeks**

- 22.5% = 15 mg weekly
- 2.4% = lifestyle alone
**Tirzepatide Trials**

**GLP-1 and GLP-1 / GIP MEDICATIONS**

**Adverse events:** nausea, vomiting, diarrhea, constipation, dyspepsia, abdominal pain

**Caution:** pregnancy, gastroparesis, pancreatitis, medullary thyroid carcinoma, multiple endocrine neoplasia syndrome type 2

**Special considerations:** type 2 diabetes, prediabetes, impaired glucose tolerance, cardiovascular risk, concomitant psychiatric medications,

**GLP-1 / GIP medications (tirzepatide) are generally more effective and more tolerable than GLP-1 medications (semaglutide, etc.)**

**PATIENTS SHOULD NOTIFY THEIR CARE TEAM ABOUT MIND SIDE EFFECTS WAY BEFORE THEY EVOLVE INTO SERIOUS ADVERSE EVENTS**
Overview of FDA-Approved Anti-Obesity Medications

<table>
<thead>
<tr>
<th>Generic</th>
<th>Brand</th>
<th>Year approved</th>
<th>Mechanisms of action</th>
<th>Administration and timing</th>
<th>% TBWL</th>
<th>Secondary benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>phentermine</td>
<td>Adipex, Lomaira</td>
<td>1959</td>
<td>Increases neurotransmitter, norepinephrine</td>
<td>Oral Daily to TID</td>
<td>6.1%</td>
<td>Can improve energy</td>
</tr>
<tr>
<td>orlistat</td>
<td>Xenical, Alli</td>
<td>1999</td>
<td>Blocks enzyme, lipase, that breaks down fat</td>
<td>Oral Daily to TID</td>
<td>2.9%</td>
<td>Can relieve constipation</td>
</tr>
<tr>
<td>phentermine/</td>
<td>Qsymia</td>
<td>2012</td>
<td>Increases neurotransmitters, norepinephrine and GABA</td>
<td>Oral Daily</td>
<td>9.8%</td>
<td>Can improve migraines</td>
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<tr>
<td>topiramate ER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>naltrexone SR/</td>
<td>Contrave</td>
<td>2014</td>
<td>Increases neurotransmitters including norepinephrine and dopamine</td>
<td>Oral Daily to BID</td>
<td>6.1%</td>
<td>Can treat depression, can aid in smoking cessation / alcohol reduction</td>
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<tr>
<td>bupropion SR</td>
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<td></td>
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<td></td>
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<tr>
<td>liraglutide</td>
<td>Saxenda</td>
<td>2014</td>
<td>Mimics glucagon-like peptide-1 (GLP-1)</td>
<td>Injectable Daily</td>
<td>8.0%</td>
<td>Can improve glucose, reduce cardiovascular risk</td>
</tr>
<tr>
<td>3.0 mg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>semaglutide</td>
<td>Wegovy</td>
<td>2021</td>
<td>Mimics GLP-1</td>
<td>Injectable Weekly</td>
<td>14.9%</td>
<td>Can improve glucose, reduce cardiovascular risk</td>
</tr>
<tr>
<td>2.4 mg</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tirzepatide</td>
<td>Zepbound</td>
<td>2023</td>
<td>Mimics GLP-1 and GIP</td>
<td>Injectable Weekly</td>
<td>22.5%</td>
<td>Can improve glucose, reduce cardiovascular risk</td>
</tr>
</tbody>
</table>

BID = twice daily, TID = three times per day, TBWL = total body weight loss

What does it meant to prescribe “off-label”?

- Use of medications for an unapproved indication or in an unapproved age group, dosage, or route of administration

- “From the FDA perspective, once the FDA approves a drug, providers generally may prescribe the drug for an unapproved use when they judge that it is medically appropriate for their patient.”

- Examples:
  - metformin
  - component of FDA-approved AOM (topiramate, bupropion, naltrexone)
  - other med in a class of FDA-approved med (Ozempic, Mounjaro, Rybelsus)

https://www.fda.gov/patients/learn-about-expanded-access-and-other-treatment-options/understanding-unapproved-use-approved-drugs-label
Which Factors Guide our Management?

1) **Any side effect, contraindication or drug-drug interaction?**
   - phentermine → anxiety
   - bupropion → seizure

2) **Could the medication improve another symptom or condition?**
   - topiramate → migraines
   - liraglutide, semaglutide → elevated glucose

Which Factors Guide our Management?

3) **Anticipated effectiveness?**
   - semaglutide → 14.9%
   - orlistat → < 5%

4) **Patient’s preference re: administration/timing?**
   - bupropion/naltrexone → oral, twice daily
   - semaglutide → subcutaneous injection, once weekly

5) **How expensive? Is there coverage?**
   - phentermine → $11-50
   - liraglutide, semaglutide, tirzepatide → >$1,000
Consider Coverage and Cost

<table>
<thead>
<tr>
<th>Medication</th>
<th>Monthly Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>phentermine</td>
<td>$9-36</td>
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<tr>
<td>orlistat</td>
<td>$49-64 (Alli)</td>
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<td></td>
<td>$732-997 (Xenical)</td>
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<tr>
<td>phentermine/topiramate ER</td>
<td>$168-276</td>
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<tr>
<td>naltrexone SR/bupropion SR</td>
<td>$515-848</td>
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<tr>
<td>liraglutide 3.0 mg</td>
<td>$1,303-1,738</td>
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<tr>
<td>semaglutide 2.4 mg</td>
<td>$1,303-1,781</td>
</tr>
<tr>
<td>tirzepatide</td>
<td>$1,032-1,579</td>
</tr>
</tbody>
</table>

*Prices from GoodRx.com (includes coupon discounts) – March 2023. Prices might be lower if mail-order pharmacies or drug-savings plans/coupons are used.

What’s Next?

- Prescribe medications with counseling on **food choices, physical activity** and **behavioral modifications**
- Assess **safety and effectiveness** ≥ monthly x 3 months then ≥ every 3 months
- **Continue** med if safe and effective (≥ 5% at 3 months)
- **Stop** if ineffective (“stopping rules”) or safety/tolerability concern; **consider alternative** med or treatment approach (remember: heterogeneity/variability)
- **FOLLOW UPS:** MD/NP/PA, RDN, other referrals (sequencing)

How are Medications Titrated?

- If weight loss and appetite control → continue same dose
- If weight plateau before goal / appetite not controlled → increase dose or add another medication
- If rapid weight loss / appetite oversuppressed / mild side effect → reduce dose
- If severe side effect / adverse event → stop medication

What is the goal?
- Discourage arbitrary numbers, unrealistic expectations
- Focus on health outcomes, reduction in health risks

Pharmacotherapy is Long-Term

- Continued use promotes sustained weight maintenance by offsetting increased appetite and reduced energy expenditure
- Prepare patients for weight plateaus: natural course of weight loss; they DO NOT mean medications no longer working
- Once patient achieves desired weight, reducing dose and/or frequency of meds is a possible strategy requiring further study
Set Patients up for Success

➢ Set the stage and educate
➢ Present options, risks / benefits
➢ Decide together

➢ Optimize effectiveness and tolerability
➢ Prepare for next steps
➢ Train to administer if rx injectable
➢ Check understanding

➢ Schedule frequent check ins
➢ Encourage close communication so mild side effects don’t turn into major adverse events

➢ Screen for disordered eating at the initial visit and at follow up appointments

Dosage & titration: Start **LOW** and go **SLOWLY**!

Roadblocks and Strategies

**COVERAGE**
- Diagnosis codes
- Prior authorizations & appeals
- Programs: set formulary, rules
- MEDICARE: advocate for TROA (Treat and Reduce Obesity Act); new Wegovy CVD approval
- Switch to alternative medication

**COST**
- Savings cards, BUT check expiration date
- DO NOT recommended compounded meds
- Switch to alternative medication

**SHORTAGES**
- Fill scripts on time
- Request refills early
- Switch pharmacy depending on supply
- Switch to alternative medication

**NOT ALL PATIENTS NEED GLP-1 MEDS!**
How can we encourage all patients on AOMs to work with RDNs?

“I know what to do. I’m just not doing it.”

“I’ve worked with so many RDNs in the past.”

“I’m on medication now so I don’t need nutritional counseling.”

It’s about so much more than food choices.

This time will be different.

Nutritional counseling is a critical part of medical treatment:
• Learn how to eat differently on AOMs
• Mitigate side effects
• Prepare for set backs
• Optimize nutrition given smaller portions
• Strategize weight maintenance

Tips to prepare for RND meeting:
• Keep a food log for a few days
• Prepare questions

How can RDNs help patients avoid side effects and improve adherence and safety?

Ask about appetite
• Ravenous?
• Oversuppressed?
• Difficult times of day?

Ask about side effects
• Mild symptoms?
• Moderate/severe symptoms?

Ask about AOM dose and frequency
• Differs from prescription?

Ask about physical activity
• Too much or too little?

Ask about energy, stress, sleep
• Good or bad changes?

Ask about relationship with food
• Disordered eating?
• Distress?
• Restriction?
• Effect on self esteem?

FEEL EMPOWERED TO NOTIFY THE PRESCRIBER!
• RDNs are CRITICAL members of the medical care team.
• Define red flags and decide on guardrails, mode of communication.
What is the process to approve an anti-obesity medication?

In general, a product can be considered effective for weight management if after one year of treatment either of the following occurs:

- The difference in mean weight loss between the active-product and placebo-treated groups is $\geq 5\%$ and the difference is statistically significant
- The proportion of subjects who lose $\geq 5\%$ of baseline body weight in the active-product group is $\geq 35\%$ is approximately double the proportion in the placebo-treated group, and the difference between groups is statistically significant

Improvements in **blood pressure, lipids, glycemia**, or other areas commensurate with the degree of weight lost are expected in patients treated with an effective weight-management product. Therefore, changes in common weight-related comorbidities should be factored into the efficacy assessment of investigational weight-management products.

https://www.fda.gov/media/71252/download

The pipeline is exciting

- Injectable to oral
- Longer half lives (less frequent administration)
- Expanded indications
- Less focus on BMI
- Prevention of muscle loss
- Price decrease??

![On a losing streak](https://www.fda.gov/media/71252/download)
Summary

• There are seven main FDA-approved AOMs.
• Several other medications are prescribed off-label for obesity.
• Many factors inform choice of AOM(s).
• Patients on AOMs need a significant amount of education and ongoing support.
• RDNs are a critical part of the care team.
• Collaborate with your care team on best practices.

THANK YOU

Academy of Nutrition and Dietetics webinar team
• Donna Ryan
• Linda Gigliotti
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• Dana Cizinski
• Eleni Ottalagana
• Tori Campbell
• Janet Feinstein
• Rachel Lustgarten
• Ashley Kim
• Nina Crowley
• Lillian Craigs Dino
Questions?

Save the Date!

May 15th | noon-1:30 p.m. (Central time)
The Role of the RDN to Optimize Short- and Long-term Use of Anti-Obesity Medications

June 4th | noon-1:30 p.m. (Central time)
Anti-Obesity Medications: An Interdisciplinary Panel Discusses Cases

All webinars will be recorded for on-demand viewing