LEGACY HEALTH PARTNERS

Treating Obesity – A Chronic Complex Disease

Right patient, right service, right time

History and Physical evaluation:

- Ask permission to discuss weight
- Detailed history of previous weight loss attempts
- Screen for eating disorders
- Medication review (Ask about RX and OTC meds that can cause weight gain)
- Ask about alcohol and substance use
- Assess ADLs and IADLs
- Assess physical activity
- Assess mental health (Screen for depression and anxiety)
- Screen for co-morbid conditions (HTN, DM, metabolic syndrome, CVD, OSA, GI, MSK)
- BMI, Waist circumference, BP

Last Reviewed: November 2024 – **FINAL**	
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Lab evaluation:

BMP, LFTs, TFTs, CBC, Lipid panel, UA.

Other Diagnostic Considerations:

ECG if symptoms or plan to start a stimulant for weight loss.

Consider sleep medicine referral if:

- STOP-Bang or Epworth Sleepiness scale positive
- Referring to bariatric clinic for surgical consult
- BMI > 40 PLUS any suspicion of OSA

Physical Exam:

- HEENT: mouth - assess airway. Mallampati 3/4 is high risk for OSA. Retrognathia is high risk for OSA.
- Neck: measure neck. > 16 inches in women and > 17 inches in men is a risk factor for OSA on STOP-Bang
- Heart and lung exam - full
- Abdominal exam- comment on central adiposity, hepatomegaly, caput medusa
- Skin: any jaundice?
- Lower extremities: comment on venous stasis dermatitis, edema
- Neuro: comment on gait and any neurological issues that would impede exercise
- MS: comment on anything that would limit exercise (BKA, recent TKA, etc.)
- Psych: comment on affect and mood especially if PHQ9 positive

Contents

Obesity Definitions:

Obesity Medicine Association (OMA)

A chronic, relapsing, multi-factorial, 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.

The Obesity Society (TOS)

A highly prevalent chronic disease characterized by excessive fat accumulation or distribution that presents a risk to health and requires lifelong care.

The Obesity Society Consensus Statement:

The body mass index (weight in kg/height in m2) is used to screen for obesity, but it does not displace clinical judgement. 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.

Which Anti-Obesity Medication (AOM) to use:

All FDA approved medications had lifestyle intervention in phase 3 trials in addition to pharmacotherapy

AOMs should be used as adjunct to lifestyle intervention

Patient specific considerations: PMhx/comorbidities, contraindications, side effects, patient's goal/motivation/long term goals.

Treatment (back to top)

People-first language, ask permission to discuss weight, leave weight bias behind, do not recommend "eat less, move more," welcoming office (bariatric chairs/exam tables).

Patient Education

Diet and exercise are part of any treatment plan for obesity.
Adequate restorative sleep

Lifestyle

A. Avoid obesogens (reference Appendix 1)
B. Sleep – 7 to 8 hours per night
C. Healthy foods
D. Exercise

Medical Interventions

A. Medication Review
    a. Remove medications that cause obesity whenever clinically safe (reference Appendix 2)

B. Anti-Obesity Medications (AOM)
    a. Phentermine
    b. Orlistat
    c. Phentermine/topiramate ER
    d. Naltrexone/bupropion ER
    e. Liraglutide
    f. Semaglutide
    g. Tirzepatide

C. Contraindications for AOMS (reference Appendix 3)

The Obesity Society. (2024, May 15). Consensus statement on obesity. https://www.obesity.org/#:~:text=Obesity%20is%20a%20highly%20prevalent,body%20is%20affected%20by%20obesity.

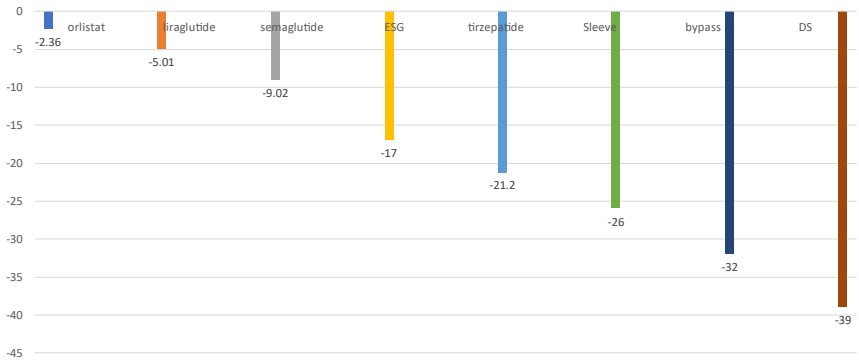
Obesity Medicine Association. (2024, May 15). What is obesity? https://obesitymedicine.org/blog/what-is-obesity/; The Obesity Society. (2024, May 15). Consensus statement on obesity. https://www.obesity.org/#:~:text=Obesity%20is%20a%20highly%20prevalent,body%20is%20affected%20by%20obesity

Surgical Interventions (back to top)

Guidelines for bariatric surgery

- ✓BMI of 40+ OR 35–39.9 and a serious obesity-related health problem
  (e.g., Type 2 diabetes, coronary artery disease or severe sleep apnea)
- ✓Acceptable operative risks
- ✓Ability to participate in treatment and long-term follow up
- ✓Understanding of operation and lifestyle changes required
  (e.g., counseling, nutritional education, and long-term follow up, including aftercare visits

Comparison of Expected Weight Loss



Contraindications

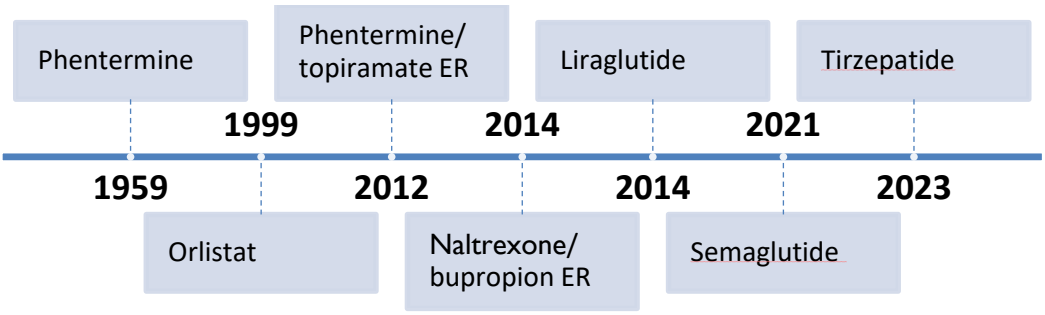
Relative

- Current tobacco user
- Portal HTN/varices
- Cancer < 5-year survival
- Untreated depression
- Limited cognitive ability

Absolute

- AIDS
- Active psychosis, unstable mood disorders
- Current substance abuse
- Any medical condition where they won't tolerate general anesthesia

Anti-Obesity Medication Dosing (back to top)



PHENTERMINE (ADIPEX -P®, LOMAIRA ®)

Dose	Dosage forms	Monthly Cost (37.5 mg/day)
15 to 18.75 mg once daily 30 to 37.5 mg in 1 or 2 divided doses	15 mg capsule 30 mg capsule 37.5 mg capsule or tablet	$8-$12

Phentermine [package insert] Philadelphia, PA: Northwind Pharmaceuticals, EPM.
GoodRx [website]. Accessed May 14, 2024.

PHENTERMINE/TOPIRAMATE DOSING

Qsymia®: 3.75 mg/23 mg; 7.5/46 mg; 11.25/69 mg; 15/92 mg XR capsules

	Qsymia ® Dosing
Weeks 1 and 2	3.75 mg/23 mg once daily
Weeks 3 and thereafter	7.5 mg/46 mg once daily
If <3% weight reduction after 12 weeks proceed to higher dosing as below	
Weeks 12-14	11.25 mg/69 mg once daily
Weeks ≥15	15 mg/92 mg once daily

Generic Phentermine + Topiramate (off-label)

	Phentermine 15 mg	Topiramate XR 25 mg
Weeks 1 and 2	1 capsule daily	1 tablet daily
Weeks 3 and thereafter	1 capsule daily	2 tablets daily
If <3% weight reduction after 12 weeks proceed to higher dosing as below		
Weeks 12-14	1 capsule daily	3 tablets daily
Weeks ≥15	1 capsule daily	4 tablets daily

Qsymia [package insert]. Winchester, KY: Vivus LLC.

ORLISTAT DOSING

	Dose	Cost per month
Xenical® (Rx)	120 mg 3 times daily with meals	$900*
Alli® (OTC)	60 mg 3 times daily with meals	$80
Orlistat (generic)	120 mg 3 times daily with meals	$208

*Based on average wholesale price

Xenical [package insert]. H2Pharma LLC. 2022.
GoodRx [website]. Accessed May 25, 2024.

NALTREXONE/BUPROPION DOSING

- Contrave: 8 mg naltrexone/90 mg bupropion extended-release tablets

	Morning Dose	Evening Dose	Cost/ month
Week 1	1 tablet	None	~$515 $99*
Week 2	1 tablet	1 tablet	
Week 3	2 tablets	1 tablet	
Week 4	2 tablets	2 tablets	

*CurAccess Program through Ridgeway Mail Order Pharmacy

- Generic (off-label): Naltrexone + Bupropion

	Morning Dose		Evening Dose		Cost/ month
	Naltrexone 50 mg	Bupropion 100 mg	Naltrexone 50 mg	Bupropion 100 mg	~$58
Week 1	½ tablet	1	None	None	
Week 2	½ tablet	1	None	1	
Week 3	½ tablet	2	½ tablet	1	
Week 4	½ tablet	2	½ tablet	2	

Contrave [package insert]. Brentwood, TN: Currax Pharmaceuticals LLC. 2023
GoodRx [website]. Accessed May 21, 2024

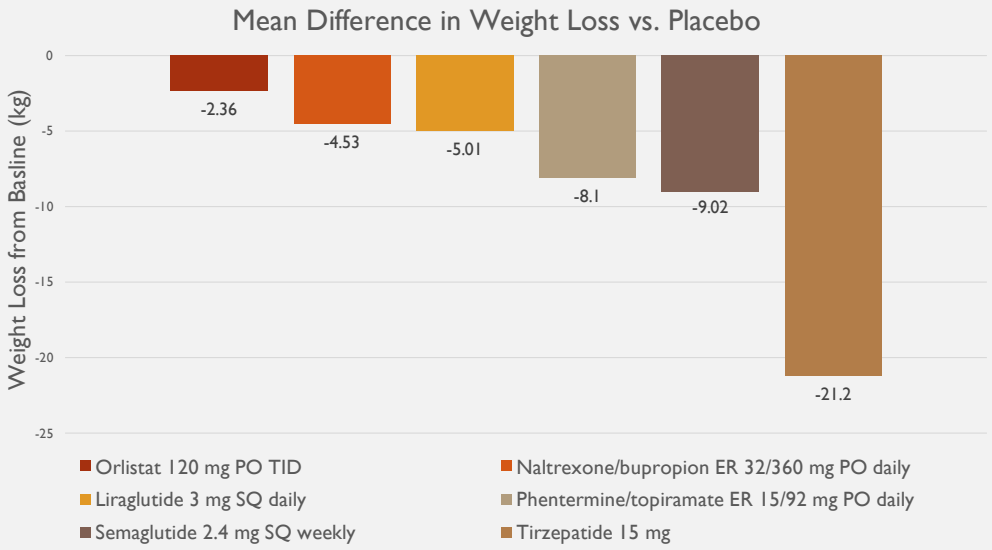
AOM COMPARISONS

AOM	Efficacy			Cost per Month*
	% weight loss at ≥1 year	% of patients with ≥5% weight loss at ≥1 year	% of patients with ≥10% weight loss at ≥1 year	
Orlistat	4.6	48.8	17.9	$80 (OTC) $208 (Rx)
Bupropion/ naltrexone	6.1	52.4	28.3	$515**
Liraglutide	7.1	60.3	30.4	$1,312
Phentermine/ topiramate	8.5	72	49.7	$179
Semaglutide	16.0	84.8	73.0	$1,314
Tirzepatide	20.9	90.9	83.5	$1,036
Phentermine	N/A			$10

*Cost based on max dose per Good Rx prices for FDA approved medications
**$99 through CurAccess Program

Jin Tak et al. CurrObes Rep. 2021. 10(1):14-30.
Jastreboff et al. N Engl J Med. 2022. 387:205-216.
GoodRx [website]. Accessed May 22, 2024

AOM COMPARISONS



Iannone et al. DiabetesObes Metab. 2023. 25(9):2535-2544.

*This is not a head-to-head comparison.

Appendix (back to top)

Appendix 1

Egusquiza RJ, Blumberg B. Environmental Obesogens and Their Impact on Susceptibility to Obesity: New Mechanisms and Chemicals. Endocrinology. 2020 Mar 1;161(3):bqaa024. doi: 10.1210/endocr/bqaa024. PMID: 32067051; PMCID: PMC7060764.

Appendix 2

- Medications that cause weight gain
  - **Cardiovascular**:
    - some BB (propranolol, atenolol, metoprolol)
  - **Diabetes:**
    - insulin, sulfonylureas, thiazolidinediones, meglitinides
  - **Hormones**:
    - glucocorticoids, estrogens, progestins might (injectable & implantable)
  - **Anti-seizure:**
    - Carbamazepine, gabapentin, valproate
  - **Antidepressants**:
    - some TCAs (ami/dox/imip/mirtazapine) some SSRIs (paroxetine)
  - **Mood stabilizers:**
    - gabapentin, lithium, valproate, vigabatrin, carbamazepine
  - **Migraine medications:**
    - amitriptyline, gabapentin, paroxetine, valproic acid, some BB
  - **Antipsychotics**:
    - clozapine, olanzapine, zotepine (substantial), quetiapine, risperidone, lithium
    - Aripiprazole, haloperidol, lurasidone, ziprasidone
  - **Antihistamines**:
    - Diphenhydramine, cyproheptadine

Appendix 3

- Contraindications for AOMS
  - **Phentermine (Adipex-P®, Lomaira®)**:
    - History of cardiovascular disease (e.g., uncontrolled hypertension, arrhythmias, heart failure, coronary artery disease, stroke)
    - Hyperthyroidism
    - Glaucoma
    - History of drug abuse
    - Use of monoamine oxidase inhibitors (MAOIs)/CNS stimulants
    - Pregnancy
  - **Phentermine/Topiramate (Qsymia®)**:
    - Hyperthyroidism
    - Glaucoma
    - Use of MAOI/CNS stimulants
    - Pregnancy (due to increased risk of oral clefts with first trimester exposure)
  - **Orlistat (Xenical, Alli®)**:
    - Chronic malabsorption syndrome (e.g., chronic diarrhea, IBD, bariatric surgery)
    - Cholestasis
    - Pregnancy
  - **Naltrexone/Bupropion ER (Contrave®)**:
    - Chronic opioid use
    - Acute opioid withdrawal
    - Uncontrolled hypertension
    - History of seizures
    - Bulimia or anorexia nervosa
    - Patients undergoing abrupt discontinuation of alcohol, benzodiazepines, barbiturates, and antiseizure drugs
    - Use of MAOI within 14 days
    - Pregnancy
  - **GLP-1 Receptor Agonists (e.g., Liraglutide, Semaglutide)**:
    - Personal or family history of medullary thyroid carcinoma
    - Patients with multiple endocrine neoplasia syndrome 2 (MEN-2)

Resources

- Combination of AOMS – not all are FDA approved.
  - Case Study: https://academic.oup.com/jcemcr/article/1/1/luac038/6994175
- Nutrition Handout for patients (***on following pages***)

Contact: If you have questions or comments about this guide, or are interested in the development of future collaboration guides, please contact LHP medical director Albert Chaffin, M.D. achaffin@lhs.org

Weight Maintenance and Weight Loss Recommendations

Easy changes to make:

- Drink a full glass of water before eating.
- Stay hydrated with 1-2 L of non-caffeinated fluids daily. Increase hydration with increased activity.
- Eat slowly without watching TV and without distractions.
- Eat proteins and greens first and carbs last.
- Watch portion sizes, eat on small plates, use a food log.
- Cut out ALL sweetened beverages including fruit juice and soda (even diet).
- Cut out processed foods and fake sugars.
- Lower your intake of simple carbs: desserts, sugar, crackers, chips, and breads.
- Increase plant based foods and decrease animal based foods including dairy products.
- As your activity increases, you may be hungrier. As your activity decreases, your portion sizes have to also decrease to maintain your weight.

How to measure success:

- Aim for 5-10 % total body weight loss over 6 months and keep it off.
- Not everything is measured in pounds. Health benefits from exercise and dietary changes are more important than the number on the scale.

Measure your waist. <u>Waist</u> loss is more important than <u>weight</u> loss.

Medications:

There are medications available to control hunger. Talk to your Primary Care Provider (PCP) about this or find a weight loss provider on the following websites:

- American Board of Obesity Medicine
- Obesity Medicine Association
- Obesity Action Coalition

Macronutrients:

Carbohydrates:

Try to eat a diet low in simple carbs. Focus more on complex carbohydrates.

Simple carbs: highly processed carbohydrates or foods that easily break down into sugars.

- Ex: White bread, potatoes, rice, pasta, cereal, crackers, chips, sweets, treats, and many fruits. Watch out for liquid carbs (flavored coffees with syrup, juice, soda)!

Complex carbs: vegetables, beans, legumes, quinoa, wheat berry, barley, whole grains. These are better carbs.

Proteins:

As long as you don't have problems with kidney disease/stones or gout:

- Can eat 1-1.5 x your weight in kilograms (google the conversion) for active weight loss
- Maintenance 0.8-1 x weight in kg

Focus on plant based sources of protein or leaner animal protein:

- Plant based: beans, lentils, chickpeas, tofu, tempeh, edamame, nuts, quinoa, whole grains.
- Animal based: lean chicken and fish, egg white (eliminate egg yolk). Try to limit or avoid red meat.

Fats:

Low fat does not mean healthier. Low-fat products may also be high in simple carbohydrates.

Choose healthy fats such as nuts, olive oil, and avocado.

- Minimize saturated fats that are solid at room temperature like animal fats and butter.

Exercise:

Follow any limitations given by your medical provider.

Slowly increase activity by 10-15% per week to a goal of at least 150 minutes per week of **moderate** intensity exercise by the 6 month point, then sustain that level.

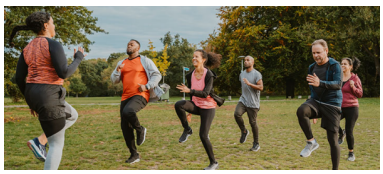
Both cardiopulmonary exercise and resistance exercises are important.

DO NOT OVER-EXERCISE to lose weight!

- This rarely leads to significant weight loss.
- You will eventually injure yourself or get too old to continue at that level then regain it all…and more.

Sleep:

Aim for 7-8 hours of quality sleep nightly. This has been proven in multiple studies to help control hunger.



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5/12/2024

Weight Maintenance and Weight Loss Recommendations

Goals:

Start date of lifestyle changes: _____

Starting weight: _____

Starting neck circumference: _____

Starting waist circumference: _____

Food plan: _____

Physical activity: _____

Sleep changes: _____

Barriers to weight loss: _____

_____

Weight Related Goals (lose # weight, fit in old jeans, sleep better, reverse sleep apnea, etc)

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Date **Measurements & non-scale victories**

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