



**UTEP**

# OBESITY MANAGEMENT

## Implementing Clinical Practice Guidelines within the Primary Care Setting

Mayedel San Jose, MSN, APRN, FNP-C  
DNP Symposium  
May 11, 2023

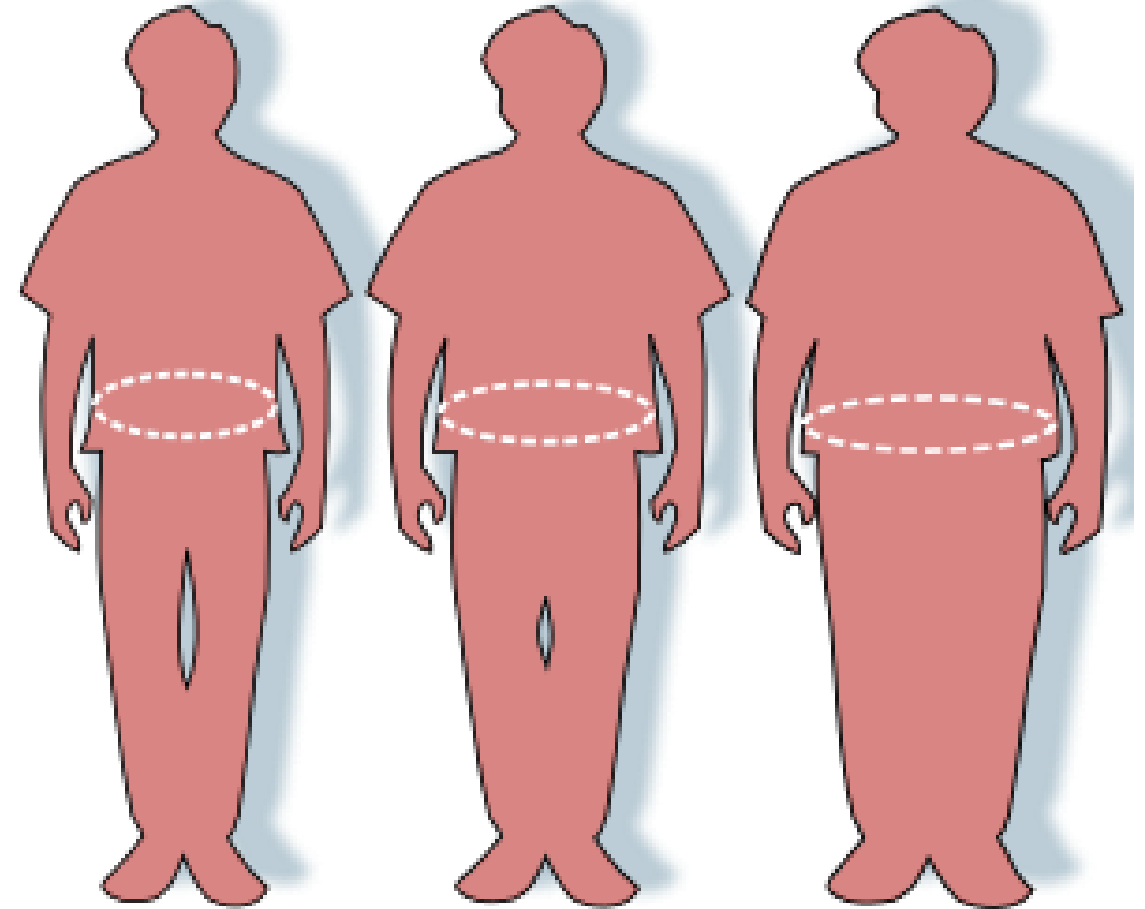


THE UNIVERSITY OF TEXAS AT EL PASO

# OVERVIEW

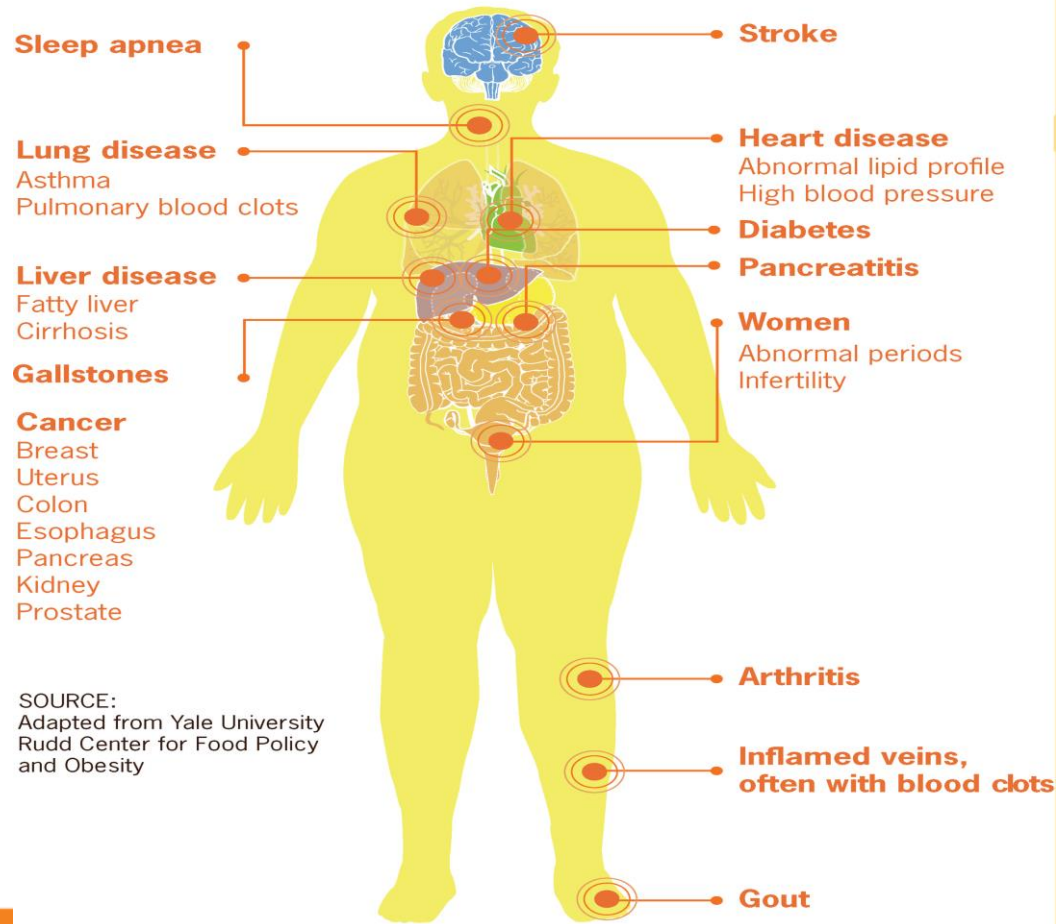
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- Obesity
  - Chronic health issue
  - Local issue
- Practice assessment
- Current available knowledge
- Quality improvement project
- Intervention
- Outcome
- Maintenance



# OBESITY: A GROWING PROBLEM

## Medical Complications of Obesity



SOURCE:  
Adapted from Yale University  
Rudd Center for Food Policy  
and Obesity

## Healthy Border 2020

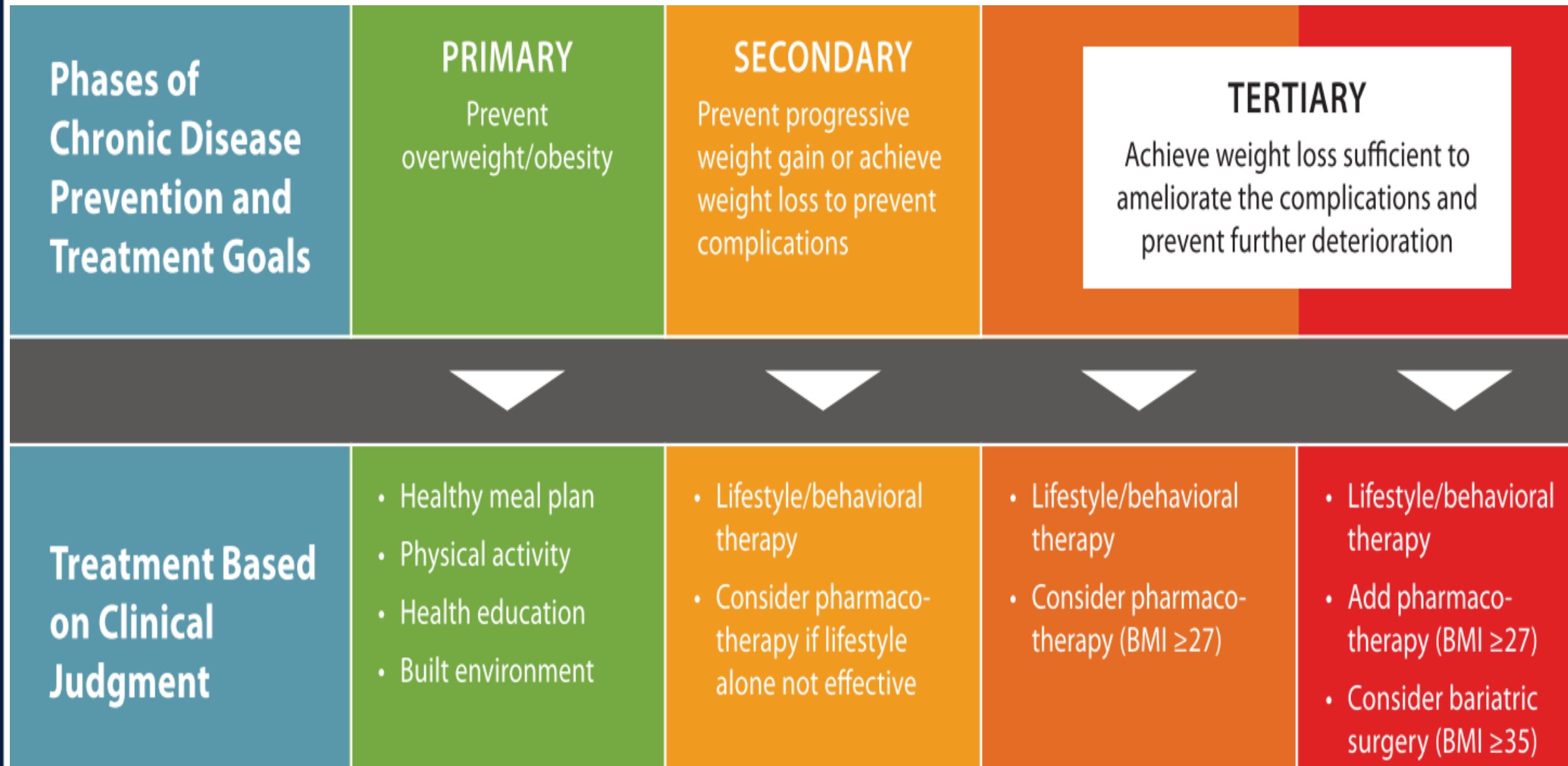
- Chronic & degenerative disease causes
  - Physical inactivity
  - Poor diet
  - Poverty
  - Genes
  - Lack of breast feeding
  - Education/access to information



# AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGIST (AAACE)/ AMERICAN COLLEGE OF ENDOCRINOLOGY (ACE) (2016) DEFINITION

Diagnosis	Anthropometric Diagnosis	<p>&lt;25 NORMAL WEIGHT</p> <p>&lt;23 in certain ethnicities</p> <p>Waist circumference below regional/ethnic cutoffs</p>	<p>BMI kg/m<sup>2</sup></p> <p>25–29.9 OVERWEIGHT   ≥30 OBESITY</p>		
	Clinical Diagnosis		<p>Checklist of Obesity-Related Complications (staging and risk stratification based on complication-specific criteria)</p>		
			None	Mild to Moderate	Severe
Diagnostic Categories	NORMAL WEIGHT (no obesity)	STAGE 0	STAGE 1	STAGE 2	
		No complications	One or more mild-to-moderate complications or may be treated effectively with moderate weight loss	At least one severe complication or requires significant weight loss for effective treatment	
		OVERWEIGHT BMI 25–29.9 OBESITY BMI ≥30	BMI ≥25	BMI ≥25	





# 10-DAY PRACTICE ASSESSMENT

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- San Jose Wellness Center
- Santa Teresa, NM
- Primary care clinic
- August – September 2022
- 52 adult patients
- 24 with vascular condition
  - Obesity related complication

# PICOT FORMAT

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- Population
  - 22-65 years old adults
  - BMI  $\geq$  30
  - $\geq$  1 complication of obesity
  - Controlled blood pressure
  - Normal EKG
  - Non-pregnant
- Intervention – Literature Review
- Current practice
  - Exercise for 30 mins 3 times/week
  - Low fat, low carb diet
- Outcome
  - Less than 2lb weight loss
- Time
  - 6 week re-evaluation



# AVAILABLE KNOWLEDGE

- 10 systematic reviews & meta-analyses
- 2 integrative reviews
- Experimental study
- Meta-analysis of correlational studies
- Qualitative studies

## LIFESTYLE THERAPY

Evidence-based lifestyle therapy for treatment of obesity should include three components

MEAL PLAN	PHYSICAL ACTIVITY	BEHAVIOR
<ul style="list-style-type: none"> <li>• Reduced-calorie healthy meal plan</li> <li>• ~500–750 kcal daily deficit</li> <li>• Individualize based on personal and cultural preferences</li> <li>• Meal plans can include: Mediterranean, DASH, low-carb, low-fat, volumetric, high protein, vegetarian</li> <li>• Meal replacements</li> <li>• Very low-calorie diet is an option for selected patients and requires medical supervision</li> </ul> <p>Team member or expertise: dietitian, health educator</p>	<ul style="list-style-type: none"> <li>• Voluntary aerobic physical activity progressing to &gt;150 minutes/week performed on 3–5 separate days per week</li> <li>• Resistance exercise: single-set repetitions involving major muscle groups, 2–3 times per week</li> <li>• Reduce sedentary behavior</li> <li>• Individualize program based on preferences and take into account physical limitations</li> </ul> <p>Team member or expertise: exercise trainer, physical activity coach, physical/occupational therapist</p>	<p>An interventional package that includes any number of the following:</p> <ul style="list-style-type: none"> <li>• Self-monitoring (food intake, exercise, weight)</li> <li>• Goal setting</li> <li>• Education (face-to-face meetings, group sessions, remote technologies)</li> <li>• Problem-solving strategies</li> <li>• Stimulus control</li> <li>• Behavioral contracting</li> <li>• Stress reduction</li> <li>• Psychologic evaluation, counseling, and treatment when needed</li> <li>• Cognitive restructuring</li> <li>• Motivational interviewing</li> <li>• Mobilization of social support structures</li> </ul> <p>Team member or expertise: health educator, behaviorist, clinical psychologist, psychiatrist</p>

# OBESITY MANAGEMENT WITHIN THE PRIMARY CARE SETTING

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- 5 week duration
- Pre-Assessment – Week 0
  - BMI
  - Waist circumference
- 4 weekly check-ins
- Weekly goals
  - Diet
  - Exercise
  - Behavior
- Post-Assessment – Week 5

# QUALITY IMPROVEMENT PROJECT

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- Institutional Review Board (IRB) Not Research Letter
  - November 21, 2022
- Adoption
  - Office manager meeting
  - Staff meetings
  - Scheduling patients
- Implementation
  - Administer questionnaire
  - Start: January 25, 2023
  - End: March 8, 2023

# PRE-ASSESSMENT QUESTIONNAIRE

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## Obesity Management Program: Pre-Assessment

Date: \_\_\_\_\_

Initials: \_\_\_\_\_ Age: \_\_\_\_\_ M/F \_\_\_\_\_ If female, risk for pregnancy: yes/no

Height: \_\_\_\_ ft. \_\_\_\_ in. Weight: \_\_\_\_\_ lbs/\_\_\_\_ kgs BMI: \_\_\_\_\_

Blood pressure: \_\_\_\_\_ Pulse: \_\_\_\_\_ EKG date done: \_\_\_\_\_

Waist circumference: \_\_\_\_\_ in.

### Typical Meals over the last 4 weeks:

- Breakfast food: \_\_\_\_\_  
○ Beverages & quantity: \_\_\_\_\_
- Lunch food: \_\_\_\_\_  
○ Beverages & quantity: \_\_\_\_\_
- Dinner food: \_\_\_\_\_  
○ Beverages & quantity: \_\_\_\_\_
- Typical snacks: \_\_\_\_\_

### Current Physical Activity over the last 4 weeks:

- Type of activities: \_\_\_\_\_
- Minutes per session: \_\_\_\_\_
- Days per week: \_\_\_\_\_
- How many minutes/hrs a day spent sitting continuously: \_\_\_\_\_



# BEHAVIORAL PRE-ASSESSMENT

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## Motivational Interviewing

On a scale from 0 to 10, how IMPORTANT is it for you to lose weight? Zero is not important at all and 10 is extremely important. Where would you be on this scale? \_\_\_\_\_

- Where do you WANT to be on this scale? \_\_\_\_\_

On a scale from 0 to 10, how CONFIDENT are you that you can lose weight? Zero is not confident at all and 10 is extremely confident. Where would you be on this scale? \_\_\_\_\_

- Where do you WANT to be on this scale? \_\_\_\_\_

In what ways does your weight concern you? \_\_\_\_\_

\_\_\_\_\_

How would you like your health to be in 5 years' time? \_\_\_\_\_

\_\_\_\_\_

What are the advantages of reducing your weight? \_\_\_\_\_

\_\_\_\_\_

### Lifestyle Goals:

What would be different in your life if you were at a healthier weight? \_\_\_\_\_

\_\_\_\_\_

When have you made significant change in your life before? How did you do it? \_\_\_\_\_

\_\_\_\_\_

What strengths do you have that would help you make a change? \_\_\_\_\_

\_\_\_\_\_

In what ways do you want your life to be different in 5 years? \_\_\_\_\_

\_\_\_\_\_



# EVIDENCE BASED INTERVENTIONS

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## Lifestyle Modifications

- Physical Activity
  - Moderate intensity: >150 mins/week
  - Vigorous Intensity: >75 mins/week
  - 3-5 days/week cardio
  - Strength training: 2-3 days/week
  - Decrease sedentary periods
- Meal plan
  - Paleolithic inspired diet
  - 2 protein shakes
    - Breakfast
    - Dinner
  - Vitamins
- Motivational interviewing
  - Pre- & Post-Assessment
  - Weekly check-in
  - Long & short-term goals

# PHYSICAL ACTIVITY PATIENT HANDOUT

## Target Heart Rates:

220 - \_\_\_\_\_ (age) = \_\_\_\_\_ bpm (Max heart rate)

64% - 76% of max heart rate = \_\_\_\_\_ - \_\_\_\_\_  
bpm for Moderate Intensity

77% - 93% of max heart rate = \_\_\_\_\_ - \_\_\_\_\_  
bpm for Vigorous Intensity

(CDC, 2022) <https://www.cdc.gov/physicalactivity/basics/adults/index.htm>

Moderate Activity Examples	Vigorous Activity Examples
Walking briskly (at least 3 mph but not race-walking)	Race walking, jogging, or running
Water aerobics	Swimming laps
Bicycling slower than 10 mph	Bicycling faster than 10 mph
Tennis (doubles)	Tennis (singles)
Ballroom dancing	Aerobic dancing
General gardening	Hiking uphill or with a heavy pack

### Example 1



Moderate-intensity aerobic activity

(such as brisk walking) for 150 minutes every week (for example, 30 minutes a day, 5 days a week)

AND



Muscle-strengthening activities

on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

### Example 2



Vigorous-intensity aerobic activity

(such as jogging or running) for 75 minutes (1 hour and 15 minutes) every week

AND



Muscle-strengthening activities

on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

### Example 3



An equivalent mix of moderate- and vigorous-intensity aerobic activity

on 2 or more days a week

AND



Muscle-strengthening activities

on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).



# PHYSICAL ACTIVITY PATIENT HANDOUT

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**Target Perceived Exertion:**  
Moderate intensity = 4-7

Vigorous Intensity = 7-9

## RPE Scale

(Rate of Perceived Exertion)

1	<b>Very Light Activity</b> Hardly any exertion, but more than sleeping, watching TV, Etc.
2-3	<b>Light Activity</b> Feels like you can maintain for hours, easy to breathe and carry on a conversation
4-6	<b>Moderate Activity</b> Breathing Heavily but you can still hold a short conversation, Still somewhat comfortable, but becoming noticeable more challenging
7-8	<b>Vigorous Activity</b> Borderline uncomfortable, short of breath, can speak a sentence
9	<b>Very Hard Activity</b> Very difficult to maintain exercise intensity, can barely breathe and speak only a few words
10	<b>Maximal Effort</b> Feels almost impossible to keep going, completely out of breathe, unable to talk, cannot maintain for more than a very short amount of time





# THE BEGINNER BODYWEIGHT WORKOUT

Nerd Fitness

DO THREE CIRCUITS OF THE FOLLOWING

1  **20**  
Bodyweight Squats

4  **10**  
Dumbbell Rows  
(use a milk jug or other weight)

2  **10**  
Push-ups

5  **15** sec  
Plank

3  **10**  
Walking Lunges  
(each leg)

6  **30**  
Jumping Jacks

#1) TOE TOUCH



#2) BACK SCRATCH



#3) BUTTERFLY STRETCH



THE UNIVERSITY OF TEXAS AT EL PASO

(Nerd Fitness, 2023)

# PHARMACOLOGICAL INTERVENTION

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- Semaglutide
  - 0.25mg SC weekly x4 weeks
  - Increase to 0.5mg SC weekly
- T2DM management
- Already on metformin
- Continuous glucose monitoring
- Phentermine
  - Start: 15mg x1 week
  - Then: 30mg x4 weeks
- Topiramate
  - With phentermine 15mg
  - Start: 25mg BID x1 week
  - Titrate up weekly
  - Goal: 100mg BID
- Controlled B/P, monitor
- Monitor for neurological effects

# OUTCOMES - MEASUREMENTS

- 14 patients total
- 7 completed

Age Sex	BMI - Pre	BMI - Post	Difference	Waist Circumference in Inches - Pre	Waist Circumference in Inches -Post	Difference
28 F	38.04	37.33	-0.71	44.5	43	-1.5
49 M	33.66	32.5	-1.16	50	44	-6
28 M	37.6	35.13	-2.47	46	44	-2
38 F	36.5	36	-0.5	44	43	-1
38 F	34	31.3	-2.7	36	34	-2
55 M	34.55	34.09	-0.46	47	46	-1
52 F	35.66	32.8	-2.86	42.75	39.5	-3.25

# OUTCOMES - DIET

Age	Sex	Breakfast - Pre	Breakfast - Post	Lunch - Pre	Lunch - Post	Dinner - Pre	Dinner-Post
28	F	skip	protein shake, blueberries	soup, rice, beans, soda	soup, chicken salad, vegetables	rice, beans, ground beef, tortilla, chips	protein shake
49	M	potato, bacon, eggs, soda	eggs, cookies, shake	chili relleno, soda	chicken, corn, potato	coffee, sweet bread	protein shake
28	M	fruits	protein shake, apple, banana	fast food	chicken, pork, vegetables	noodles, chicken, steak	protein shake
38	F	boiled eggs, tater tots	boiled egg, fruits, oats	none	baked salmon, baked chicken, quinoa, veggies	veggies, potatoes, cheese	turkey, pepperoni, boiled eggs, avocado, veggies
38	F	ice cream, candy, McDonald's	protein shake	Wendy's	chicken, fish, salad	mac and cheese, diet soda, steak	protein shake
55	M	eggs, ham burrito	eggs, ham burrito	turkey sandwich, soda	steak	nachos with beef	protein shake
52	F	eggs and bread	protein shake	steak, rice, chicken soup, soda, cookies, chocolate	fruits, green salad, chicken	none	protein shake

# OUTCOMES – PHYSICAL ACTIVITY

Age	Sex	Exercise Quality - Pre	Exercise Quality - Post	Weekly Minutes Spent Exercising - Pre	Weekly Minutes Spent Exercising - Post	Difference	Continuous Time in Minutes Spent Sitting - Pre	Continuous Time in Minutes Spent Sitting - Post	Difference
28	F	household activities	stationary bike, Nerd Fitness workout, Grow with Jo workout	0	280	280	180	45	-135
49	M	jumping, running	walking	30	30	0	0	0	0
28	M	weight lifting, flag football	weight lifting in the gym, jogging, flag football	360	525	165	180	120	-60
38	F	household activities	weights, walking	120	250	130	480	30	-450
38	F	none	Peleton, cycling, weights	0	150	150	300	60	-240
55	M	none	walking	0	60	60	360	240	-120
52	F	walking with weights	walking with weights, Nerd Fitness workout, Grow with Jo workouts	120	200	80	120	30	-90

# OUTCOME - BEHAVIOR

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Age	Sex	Confidence - Confidence -		Difference
		Pre	Post	
28	F	6	8	2
49	M	7	8	1
28	M	3	8	5
38	F	3	8	5
38	F	5	9	4
55	M	3	4	1
52	F	4	8	4



# MAINTENANCE

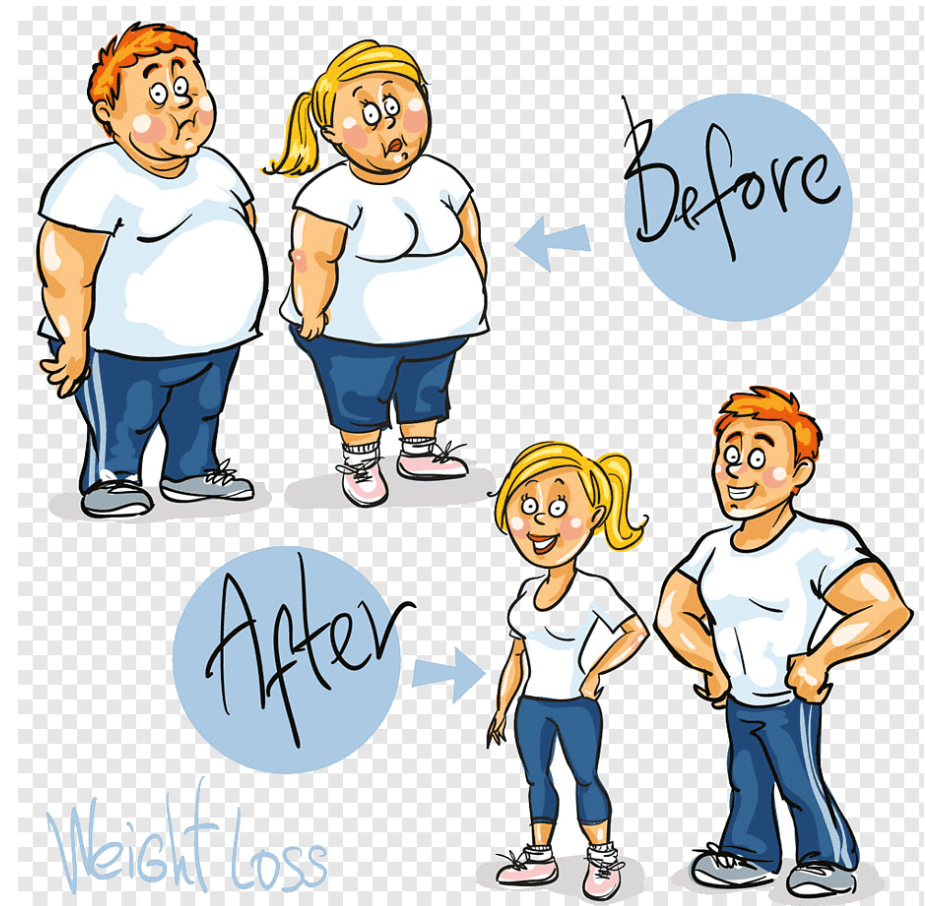
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- Appointment compliance
  - Motivational interviewing
  - Staff training
- Ease of appointment
  - Time management
  - Improved questions
  - Delegation
- Referral
  - Mental health provider
  - Physical therapy
  - Orthopedic
  - Cardiology
- Future quality improvement
  - Inter-professional collaboration
  - Community outreach

# SUMMARY

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- Obesity health problem
- Literature review
- Quality improvement
- Management by PCP
- Outcomes
- Further improvement



# QUESTIONS?

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# REFERENCES

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# THANK YOU

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- ❖ Audience
- ❖ Friends
- ❖ Family
- ❖ Faculty
- ❖ Chair
- ❖ Colleagues



Coming together is a beginning. Keeping together is progress. Working together is success.

-Henry Ford