



# Moderate Resistance Training as Adjunctive Treatment for 73-year-old Female with Obesity-Related Chronic Illnesses

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## Abstract

A personalized one-month resistance training program following ACSM guidelines was implemented for a 73-year-old woman with obesity-related conditions. The program combined moderate resistance training, as well as a personal exercise of swimming, aiming to improve symptoms of obesity, hypertension, prediabetes, hyperlipidemia, sleep apnea, and low bone density. Post-program results showed improved mood and energy, better sleep, and reduced arthritic symptoms. These findings suggest that moderate resistance training can be an effective complementary treatment for obesity-related chronic illnesses.

## Methodology

• Following ACSM guidelines, a 1-month resistance training program of a 73-year-old female (body mass index (BMI) > 42.6 kg/m<sup>2</sup>) was implemented, consisting of 2 days/week at Greenbrier Valley Fitness for various moderate intensity exercises.

• Example Exercise Prescription:

Warm Up	Strength Training	Cool Down
Heel/Toe Walks	3x12 Sit-to-Stand (24" Box)	4-minute Treadmill Walk
Banded 7's	TRX Rows	
3 Minute Echo Bike	TRX Press	

## Conclusion

The impact of moderate resistance training has potential to be an effective adjunctive treatment in reducing symptoms of illnesses related to obesity. Upon completing the month of resistance training, the participant described an increase in both mood and energy, less exacerbation of arthritic flare-ups upon waking and an overall better quality of sleep.

## Introduction

The state of West Virginia faces the highest adult obesity rate in America, with contributing factors including access to food, socioeconomic struggles, minimal physical activity, and lack of adequate. A personalized exercise prescription for individuals with chronic illnesses and comorbidities related to obesity can serve as an adjunctive treatment for improving symptoms of illness. According to ACSM guidelines, the recommendation is 150 minutes of moderate aerobic activity or 75 minutes of vigorous activity, along with 2-3 days per week of resistance training. Symptoms of exercise distress were monitored throughout each exercise session. Maintaining bone mineral content within the geriatric population is crucial to preventing osteoporosis, especially in postmenopausal women; therefore, a strength training regimen was implemented. Reviewed conditions include obesity, essential hypertension, prediabetes, hyperlipidemia, sleep apnea, and low bone density (T -1.5 worst Z -1.66). Relevant medications include lisinopril, rosuvastatin, montelukast, and loratadine.

## Results

- Motivation remained consistent at a high level
- Increase in mood and energy
- Less exacerbation of arthritic flare-ups upon waking and an overall better quality of sleep

### Pre-Survey

Severity of Depression (PHQ 9)	1
Severity of Generalized Anxiety Disorder (GAD 7)	0

Days/Week of Moderate Physical Activity	Minutes of Physical Activity at that Level	Total Minutes/Week of Physical Activity	Days/Week of Muscle Strengthening Exercises
2 days	60 minutes	120 min/week	0

### Post-Survey

Severity of Depression (PHQ 9)	0
Severity of Generalized Anxiety Disorder (GAD 7)	0

Days/ week of moderate physical activity	Minutes of physical activity at that level	Total Minutes/Week of Physical Activity	Days per week of muscle strengthening exercises
3-4 days	60 minutes	240 min/week	3-4 days

## References

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