

Effective Home Exercise Program Design for Senior Patients:
Strengthening and Endurance Programs

PDH Academy Course #OT-1905
4 CE HOURS / .4 CEUs

Course Abstract

Therapeutic exercise is an important part of the plan of care for many senior patients; as such, education in a home exercise program is key to both keeping gains made in therapy, and to continue to progress after discharge. This course considers the evidence for the importance of exercise and presents the elements of exercise program design, followed by an examination of evidence-based tests and assessments for aerobic endurance and strength. Exercise modifications for senior patients and considerations for individuals with comorbidities are also addressed.

Target audience: Occupational Therapists, Occupational Therapy Assistants, Physical Therapists, Physical Therapist Assistants (no prerequisites).

NOTE: Links provided within the course material are for informational purposes only. No endorsement of processes or products is intended or implied.



This course is offered for 0.4 CEUs (Intermediate level; Category 2 – Occupational Therapy Process: Evaluation).

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Learning Objectives

At the end of this course, learners will be able to:

- Recall benefits related to exercise
- Recognize age-related physiological changes, with attention to how each impacts the plan of care in general and an exercise program specifically
- Identify elements of effective exercise program design
- Distinguish between assessments for aerobic endurance and strength, as well as other relevant assessments
- Recall exercise modifications and group programs relevant to senior patients
- Identify special considerations pertaining to senior patients with comorbidities

Timed Topic Outline

- I. Why is Exercise so Important? (20 minutes)
Benefits of Exercise; Linking Exercise and Activity with Function
- II. Seniors and the Aging of America (5 minutes)
Frail vs. Fit: Common Traits
- III. Age-Related Physiological Changes (10 minutes)
- IV. Barriers, Precautions, and Contraindications to Exercise and Activity (5 minutes)
Barriers to Exercise; Precautions to Exercise; Contraindications to Exercise
- V. Program Design Principles and Variables (15 minutes)
Principles of Program Design; Program Design Variables
- VI. Keys to Effective Program Design (5 minutes)
- VII. Designing a Home Exercise Program (5 minutes)
Determine the Goal of the Program and Mode of Exercise; Establish a Baseline; Monitor Intensity
- VIII. Assessments for Aerobic Endurance and Strength (70 minutes)
Assessments for Muscular Strength; Assessments for Aerobic Endurance; Other Functional Tests to Consider; Assessments for Lower Functional Levels
- IX. Exercise Program Components (5 minutes)
- X. General Recommendations: Aerobic Endurance and Strengthening Exercises (5 minutes)
U.S. Department of Health and Human Services; American College of Sports Medicine; American Physical Therapy Association Geriatric Section
- XI. Modifications to Traditional Exercises (5 minutes)
- XII. Evidence-Based Group Exercise Classes (15 minutes)
- XIII. Special Considerations for Individuals with Comorbidities (30 minutes)
Diabetes; Osteoporosis; Osteoarthritis; Cardiovascular Disease; Chronic Obstructive Pulmonary Disease; Auditory and Visual Impairments; Obesity; Cognitive Deficits; Multiple Sclerosis; Parkinson's Disease
- XIV. Compliance and Discharge Planning (5 minutes)
- XV. Conclusion and Appendix (20 minutes)
- XVI. References and Exam (20 minutes)

Delivery & Instructional Method

Distance Learning – Independent. Correspondence/internet text-based self-study, including a provider-graded multiple choice final exam.

To earn continuing education credit for this course, you must achieve a passing score of 80% on the final exam.

Registration & Cancellation

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Course Author Bio & Disclosure

Andrea Perrea, MPT, DHS, GCS, CSCS, is a licensed physical therapist with over 23 years of clinical experience, primarily in home care and outpatient therapy, and over 17 years teaching experience. She holds a doctorate degree in Health Science with emphasis in education and geriatrics. She is a Certified Geriatric Specialist through the American Physical Therapy Association, a Certified Strength and Conditioning Specialist through the National Strength and Conditioning Association, and a member of the American Physical Therapy Association, the APTA Geriatrics Section, and the National Strength and Conditioning Association.

Dr. Perrea has taught more than 300 continuing education courses since 2000. She taught as adjunct faculty for the Missouri Western University in the PTA program. In 2012 she instructed for the Missouri Alliance for Home Care and the Indiana Home Care Association. Dr. Perrea presented at the 2015 Rehab Summit in Orlando FL. She currently teaches courses on the following topics: Functional Testing and Skilled Documentation in Geriatric Therapy, Exercise Programs for Frail Elderly, Balance Assessments and Fall Prevention Programs, Strength Training for Function: Program Design for Frail to Fit Seniors, and Expand Your Functional Test Toolkit.

DISCLOSURE: Financial – Andrea Perrea received a stipend as an author of this course. Nonfinancial – No relevant nonfinancial relationship exists.