

**SECTION ON GERIATRICS, APTA
EXERCISE RECOMMENDATIONS FOR OLDER ADULTS**

The following table includes recommendations for exercise for older adults. These recommendations are based on the best available scientific evidence and consensus from experts in their respective professions including the Centers for Disease Control and Prevention, the American College of Sports Medicine, the American Geriatrics Society, the American Heart Association, the American Cancer Society, and from the National Institutes of Health- the National Institute on Aging. These recommendations provide the framework for prescribing specific exercises by listing the key elements of exercise prescription (frequency, intensity, duration, volume). Physical therapists should use these recommendations **as a starting place to design optimal and safe exercise programs.**

	Population	Intensity	Volume	Frequency
Muscle Performance	Healthy Aging	Low: 40% 1RM ^{1,2} Mod: 40-60% 1RM ^{1,2,3} High: >60% 1RM ^{1,2,3} 15-17 on Borg scale; 8-15RM ⁴ 8-12RM ⁶ 10RM ⁶ 10-12RM ⁷	1set; 10-15 reps; 8-10 exercises ^{1,2} 1set; 8-10 reps; 8-10 exercises ^{1,2,3} 1set; 6-8 reps; 8-10 exercises ^{1,2,3} 1-2sets; 10-15reps; 8-10 exercises ⁹ 2sets; 8-15reps; all major muscle groups ⁴ 1set; 8-12reps; 8-10 exercises ^{5,8} 2sets; 10reps; all major muscle groups ⁶ 2-3sets; 10-12reps; all major muscle groups (4UE and 4LE) ⁷	2-3x/ week ^{1,2,3,5,6,7} 2x/week ^{4,8,9}
	Chronic Disease	10-15RM ⁸ 8-15RM ^{9,10}	1set; 10-15reps; 8-10 exercises ⁸ 1-3sets; 10-15reps; 8-10 exercises ^{9,10}	2-3x/week ^{8,9,10}
	Frailty	10-15RM ^{5,8}	1set; 10-15reps; 8-10 exercises ⁸ 1-3set; 10-15reps; 8-10 exercises ^{5,11}	2x/week ⁸ 2-3x/week ^{5,11}
Aerobic Capacity	Healthy Aging	55/65%-90% HR _{max} ; 40/50%-85%HRR ⁵ 40-60%VO _{2max} ^{3,6,12} 55-75%HR _{max} 12-14 Borg scale ² 13 Borg scale ⁴ 40-60%HR _{max} 12-14 Borg scale ¹²	20-60min; at least 10min bouts ^{2,5,12} At least 30min ^{3,4,6,7}	3-5x/week ^{5,12} 5-7x/week ^{3,4,6,7} 3-7x/week ²
	Chronic Disease	50-70% HR _{max} ; 40-60%HRR ¹⁰	20-60min ¹⁰	3-5x/week ¹⁰
	Frailty	11-13 Borg scale; 40-60%HRR ¹¹	At least 20min ¹¹	≥ 3x/week ¹¹

	Population	Intensity	Volume	Frequency
Flexibility	Non-Specific	Sufficient to maintain ROM ⁵ Slowly into mild discomfort ^{2,4} Subjective sensation of resistance ¹ To point of resistance or mild discomfort ⁷	All major muscle groups ^{3,5} 3-4x/all major muscle groups with 10-30s holds ^{2,7} 3-5x/each major muscle group with 10-30s holds; 15-30min total ⁴ 3-5x/each key muscle group with 20-30s holds ¹	7x/week ⁵ 2-3x/week ^{2,5,7} 3-7x/week ^{3,4} 3-5x/week ¹
Balance	Non-Specific	Progressive, targeting important postural muscle groups ¹¹ Progress by decreasing base of support ⁷	Dynamic, focus on mobility. Static, focus on SLS. 4-10 different exercises. ⁷	1-7x/week ⁷

RM, repetition max; HRR, heart rate reserve; SLS, single leg stance

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