

Exercise and Physical Functional Performance in Independent Older Adults

Combined endurance / strength training exercise program

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Equipment: Stairmaster Crossrobics 1650*
Stairmaster Gravitron 2000
Stairmaster Kayak*
Leg press

*This equipment can be used for both strength and aerobic training. For aerobic training lower weights are used and the exerciser works faster to achieve the training heart rate. For strength training the weight is increased and the action is slowed to 2-3 seconds for concentric and 4 to 6 seconds eccentric.

Total time: 60 minutes

Active Warm-up – 10 minutes

Systematic warm up of all joints hips, shoulders, spine and neck, elbow, knees, wrists, and ankles.

Aerobic training – 20 minutes

Intensity 75 – 80% of heart rate reserve or Perceived exertion of 13-14 on the 10-20 Borg scale.

10-minutes on lower body on Stairmaster Crossrobics 1650

10-minutes on upper body Stairmaster Kayak

The weights on the equipment are lower than

Strength training – 20 minutes

Intensity 75 – 80% of 1 RM (the maximum amount that can be lifted one time using good form);

2 sets for 12 to 15 repetitions

Leg press

Gravitron: pull-up wide and narrow

dip (triceps)*

*for people with rotator cuff limitations or limitations in wrists movement used free weights for arm abduction (medial deltoid) and triceps

Cool-down-10 minutes

Stretching for hamstrings, hip rotators, shoulder muscles, triceps.

Efficacy:

Adherence to this program was 80% and after 6-months improved physical function by 14%. Individuals carried 14% more weight in the form of groceries or luggage to go onto a bus stop and did this 10% more quickly. Physical function in upper body strength, lower body strength and endurance improved significantly. Leg strength also increased significantly (33%), as did aerobic fitness by slightly more than 10%. This program is particularly effective for maintaining function in persons transitioning from living in single family community homes to apartments or independent retirement communities.