

# FOREVER ACTIVE

PERSONALIZED FITNESS AND WELLNESS FOR MEN 50 +



## Home Exercise to Improve Upper and Lower Body Strength and Balance for the Older Adult Part I

### Introduction

It is well documented that as we grow older our muscles atrophy (get smaller) and weaken. This loss of strength is the result of the physiological effects of aging and inactivity. The loss of muscle strength in older adults affects their ability to participate in recreational activities and perform activities of daily living such as climbing stairs, walking, getting out of chairs, lifting and carrying and reaching above their heads. Most significantly, the loss of muscle strength leaves the older adult vulnerable to falls which often result in fractures of the wrists and hips.

Exercise is the only effective method of slowing the aging effect on our muscles. The saying, “use it or lose it” could never be truer when it comes to the health of your muscles. This newsletter (part 1) will examine the effects of aging on our muscles and present “in home” exercises that everyone can do to help slow the aging process, improve and preserve quality of life and prevent falls and resulting disability. Part 2, September's Newsletter, will illustrate these exercises.

### The Effects of Aging on the Muscular System

#### Loss of Muscle Mass, Strength & Endurance

It has been scientifically proven that males will lose approximately 5% and females 2.5% of their muscle mass each decade after age 45. This loss involves:

1. Decrease number & size of muscle fibers which are replaced by connective tissue.
2. Decrease number of motor units, which are primarily Fast Twitch motor units used for balance, coordination and agility.

Anatomical studies have shown that the loss is greatest in the lower extremities.

Physiologically, the loss of muscle size and strength is due to:

1. Decrease of production of Growth Hormone
2. Decrease in physical activity (greatest cause)

#### Critical Mass | How muscles decline as we age

These cross-section scans of thighs of men of similar body-mass index show typical loss of muscle quantity and quality with age. Normal-density muscle, shown in blue, gives way to low-density muscle, the green marbling, and fat, in red and orange.



Sources: Roger Fielding, Tufts University; Nathan LeBrasseur, Mayo Clinic

The Wall Street Journal

### Did You Know

#### Guidelines to Exercise Safely

##### Key Points:

1. Always consult with your doctor before beginning any form of exercise program. Safety first. You want to make sure there are no undetected risk factors that may jeopardize your health.
2. For all exercises find ones that are comfortable, enjoyable.
3. You should never feel pain or discomfort while exercising. You may feel tired, that is OK, but if any exercise produces discomfort stop immediately. If the pain persists, consult your doctor.
4. There will be days that you don't feel like exercising, that is OK. The body needs its rest and recovery time. Re-conditioning your body after years of idleness and neglect takes time measured in months and years not days and weeks. Missing an exercise session or two is not a big deal. Follow the 80:20 rule; your goal is to make 80% of your scheduled exercise sessions.
5. The secret to conditioning effectively is consistency. Remember, “Success is in the Doing.”

**Training Principles:**

1. Frequency– 2x’s a week is plenty. As you get older the body needs more time for rest and recovery. Monday Thursday or Tuesday Friday is good.
2. Number of sets– Start by doing one set of each exercise but your long term goal should be 2 sets for each resistant exercise. Rest 1-2 minutes between sets.
3. Number of repetitions– Start at 8 reps and progress slowly (Increase by 1 rep every 3 weeks) to 12 reps for each exercise.
4. Training load— This is difficult to quantify but it is ALWAYS better to start training with a lighter load than a heavier load. By starting off with a light resistance you can safely increase the resistance or reps and sets until a gentle fatigue sets in. It may take 2 to 4 weeks before you establish the appropriate load to work at. As you slowly re-condition your body you can slowly increase the amount of resistance you are using.

**Key Point**– Time is on your side; do not rush into increasing the number of sets, reps or loads until your body has had plenty of time to adapt to the new physical stress you are subjecting it to.

**Editors Note:** The following home exercises need minimal equipment. A light weight/resistant rubber band that can hook onto a door is all you need. Do NOT try to do all the exercises in one session. Do one or two exercises for each muscle group and a couple of core exercises each session.

**Upper Body Exercises**

1. Shoulders
  1. Shrugs
  2. Over head press
  3. Lateral deltoid raises
  4. Anterior deltoid raises
  5. External rotation
2. Chest
  1. Chest press
  2. Chest fly
  3. Push-ups
  4. Modified push-ups (on your knees)
3. Back
  1. Back fly extensions
  2. Upper rows
4. Biceps
  1. Regular curls
  2. Arms rotated to the side curls
  3. Hammer curls
5. Triceps
  1. Elbow extensions

**Lower Body Exercises**

1. Thighs (front of the legs)
  1. Knee extensions
  2. Squats
  3. Lunges
2. Hamstrings (back of the legs)
  1. Leg curl
3. Hips
  1. Flexors
  2. Extensors (Buttocks)
  3. Abductors
4. Calf’s (Posterior lower legs)
  1. Heel raises
5. Shins (Anterior lower legs)
  1. Toe raises

**Core**

1. Sitting or lying crunch
2. Sitting or lying oblique crunch
3. Lateral bending
4. Trunk rotations
5. Back extensions

Part 2, September’s Newsletter, will illustrate these exercises.