



Let's Talk Agility... Senior Health & Fitness

Strength Training Injury-free for the Active Older Adult

Words to Live By

"Chronological age does not equal **Perceived** age"

"A testament to the remarkable resilience of the human body when it is kept properly maintained"

"Age does not equal poor health, and youth does not equal good health"



Important Definitions:

Collagen fibers: A component of connective tissue (tendons, ligaments, fascia) that helps resist tensile deformation and responsible for strength and stiffness of tissue

Elastin fibers: A component of connective tissue that is responsible for providing extensibility.

The Effects of Age on Connective Tissue:

- 1) Decrease in maximum tensile strength
- 2) Decrease in the elastic modulus
- 3) Rate of adaptation to stress is slower
- 4) Increase tendency for overuse syndromes, fatigues, failures and tears with stretching



Developing an Injury-free Exercise Program:

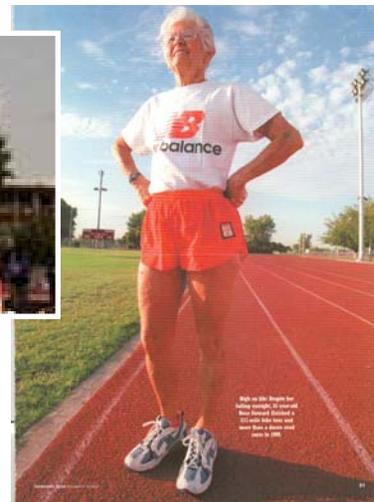
- 1) Focus on muscular endurance
 - a. Low weights and high repetitions
 - b. Example: 3 sets of 12-15 reps
- 2) Proper warm-up and stretching before weight lifting
 - a. Example: Cardiovascular warm-up for minimum of 10 minutes on stationary bike, elliptical trainer, treadmill, or Nu-Step
 - b. Targeted stretching exercises (3 reps of 30 second hold)

Developing an Injury-free Exercise Program (Continued):

- 3) Proper progression of exercises and weights
 - a. Start out slow- see how you respond during, after and the next day after your weight lifting routine
 - b. Add one to two new exercises into your routine at a time
 - c. Once you are able to perform 3 sets of 15 repetitions without much difficulty, add weight, and start back with 3 sets of 12 repetitions at the new weight
 - d. How much weight to use? The last 3-4 repetitions should be challenging, but still able to maintain good form
- 4) Balance
 - a. Develop a program specific to your needs or goals
 - b. Divide weight lifting routine into body regions or different days of the week
 - c. Integrate an appropriate cardiovascular program (minimum of 20-30 minutes at target heart rate zone)

Other Considerations:

- 1) Consult family physician if any history of cardiovascular or pulmonary conditions or other medical conditions that would preclude anyone from performing weight lifting or cardiovascular exercises.
- 2) Consult with a certified personal trainer for assistance in developing a balanced program and proper use of equipment and form.
- 3) Consult with a physician and/or physical therapist if there is an acute or chronic injury to assist in developing an appropriate exercise routine.
- 4) Perform exercises that are functional and specific to personal goals or activities (e.g., tennis players, golfers, swimmers)
- 5) May consider the use of a heart rate monitor for gauging intensity of cardiovascular exercise.
- 6) Appropriate footwear
- 7) **You don't have to continually add more weight!**



For specific questions regarding health and fitness, please feel free to contact us at 269.329.0934 or via our website at www.agilitysportsmedicine.com.

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