

Strength, Power, and the Baby Boomer

As we begin the new millennium, we face many challenges relating to the health and fitness of a rapidly aging society. Perhaps the greatest challenge is helping the “baby boomers” age gracefully, adding life to their years. The baby boomers are the largest generation in U.S. history, representing one-third of our present population. Around 2011 the first of the baby boom generation will turn 65. By 2030, boomers will enter their seventies and eighties, doubling the number of elderly adults, with one out of every five adults over 65 years of age. Further, the “oldest-old” (those over 85 years) are estimated to grow from five million presently, to over 20 million.

Baby boomers do not need to age quietly. Boomers have economic and political power as well as the power to reject the stereotype of ageism, frailty and inactivity. They can continue to pursue vigorous, active lives well into old age. Life extension is an admirable goal, but not at the expense of good health and quality of life. Crucial to the boomers' enjoyment of their golden years are maintaining and improving muscular strength and power through resistance training. Whether performing daily chores or playing a round of golf, muscular strength and power significantly impact the boomer's ability to function with vigor, enjoying life to the fullest.

Muscular Strength

Strength refers to the muscle's ability to generate force at a given velocity. Adequate strength levels are necessary to perform activities of daily living (e.g., carrying groceries or laundry, gardening, shoveling snow) and to participate in recreational and fitness activities such as walking, hiking, or carrying golf clubs. Increased strength also reduces cardiovascular stress while lifting and carrying a given weight and increases muscular endurance during work or play.

Muscular Power

Power is the product of force and velocity and represents the amount of work a muscle can produce per unit of time. Power is strongly related to many functional activities that require strength with speed such as lifting boxes, climbing stairs, rising from a chair, walking, or preventing falls. Many recreational pursuits of baby boomers are also strongly related to muscle power (e.g., golf, tennis, bowling, playing with grandchildren).

As the baby boomers move into the sixth decade of life, the decline in muscle strength and power typically associated with aging becomes a matter of increasing importance. Loss of muscle strength and power leads to declining activity, increased frailty and functional dependence – a vicious cycle that can often lead to nursing home admission. Further consequences include gait and balance problems, risk of falls and fractures, and an increased risk of chronic diseases such as osteoporosis and diabetes. On the positive side, resistance training has proven to be a safe, economical, and beneficial addition to the older adult's fitness regimen. Research has consistently shown that if the basic requirements of intensity and duration are met, resistance training results in similar gains in strength and power in older and younger adults. These results mean that for the boomer it is never too late to start a well designed, individualized resistance training program. A medical checkup is always a good idea before starting a resistance-training program.

The American College of Sports Medicine (ACSM) recommends the following resistance-training regimen for the average healthy adult who wants to achieve basic muscular fitness:

- One set of eight to 12 repetitions (10-15 repetitions for older or more frail persons), performed two to three days per week, involving eight to ten exercises for all major muscle groups.

- Determine the amount of resistance by choosing a weight that can be moved the desired number of times. (e.g., eight to 12 repetitions)
- Always use proper technique, performing each exercise through the full range of motion in a controlled motion while maintaining normal breathing.
- Always perform both a warm-up period before and cool-down period after the workout. Five to 10 minutes is adequate.

When greater levels of muscular strength and power are desired by the healthy adult, ACSM recommends the following:

- Performing progressive resistance training in a periodized fashion, manipulating training variables over time. Variety in training variables (e.g. one to five sets per exercise, one - 12 repetitions at various intensities and velocities, two to five days per week) helps ensure optimum stress to meet the individuals health and fitness goals for strength and power.

Conclusions

The baby boom generation enters the new millennium looking forward to enjoying the fruits of its labor. Instead of sitting on a chair watching life go by, boomers can meet life's challenges head on, becoming stronger and more powerful through resistance training. In addition to enhancing their health and quality of life, boomers again have the chance to help the next generation by setting an example of a new, active view of the aging lifestyle. In the past century, baby boomers fueled the greatest economic expansion in the history of the world. In the new millennium, boomers can fuel a revolution – a revolution on how society views aging!

Written for the American College of Sports Medicine by Kent J. Adams, Ph.D., CSCS

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*Street Address: 401 W. Michigan St. • Indianapolis, IN 46202-3233 USA
Mailing Address: P.O. Box 1440 • Indianapolis, IN 46206-1440 USA
Telephone: (317) 637-9200 • FAX: (317) 634-7817*

