



A MONTHLY NEWSLETTER FOR OUR HIGHLY VALUED CENEGENICS PATIENTS.



Reduced Aerobic Fitness May Mean Dependent Living In Later Years

It's long been documented that aerobic exercise delivers critical health benefits, from an increase in health span and decrease in health risks to reduced stress, better muscle endurance and improved quality of sleep.

In fact, a significant study of more than 15,000 veterans whose average age was 60, published in the January 2008 *Circulation* (a journal of the American Heart Association), found that men who were "highly fit" had a 50% - 70% lower mortality risk than their "low-fit" counterparts. Lead author on the study Peter Kokkinos even stated that to attain the associated health benefits, it only takes "moderate levels of physical activity like 30 minutes a day, five days a week of brisk walking."

But it's also well documented that maximal oxygen intake decreases between 20 to 60 years old and is projected to deteriorate at a similar rate into retirement. The faculty of Physical Education and Health and Department of Health of Public Health Sciences along with the faculty of medicine at the University of Toronto (Ontario, Canada) examined the "likelihood that a deterioration of aerobic fitness will lead to a loss of independence in old age."

Published in the March 2008 *British Journal of Sports Medicine*, the short-review study investigated maximal aerobic power, which they had independent living.

A look at the study. They used traditional relative units—ml/[kg.min]—to describe any functional losses with aging. In previous cross-sectional studies, a "typical sedentary man . . . showed maximal aerobic power decreasing fairly steadily from perhaps 45 ml/[kg.min] at age 20 to about 25 ml/[kg.min] at age 60." For women, the deterioration begins around age 35, decreasing from "young adult value of perhaps 38 ml/[kg.min] to 25 ml/[kg.min] at age 60." And, according to their abstract, a 1995 U.S. study (Jackson, AS et al) found "an accumulation of body fat and a decrease in habitual physical activity accounted for about half of the age-related decrease."

The Canadian researchers hypothesized that independence would be "challenged when the maximal aerobic power had dropped to 12-15 ml/[kg.min]"—based on a study by Bonjer, FH that "demonstrated an exponential relationship between the duration of aerobic exercise and the relative intensity that was tolerated."

The result? Efforts over an eight-hour day that demanded more than 40%-50% of a subject's maximal aerobic power produced fatigue. A decrease of 4 METS in the elderly person's maximal aerobic power—METS are metabolic equivalents, a measurement of energy demands on exercise—would indicate the individual could only "sustain a very limited range of activities requiring less than 2 METS." For comparison, resting equates to 1 MET; a light workout is 2-4 METS; a vigorous run is 8 METS.

In other words, this elderly individual would only have the energy capacity for resting, which makes dependent living inevitable! Just standing, per a 2006 study by Weiss et al, showed that in their oldest subjects, "demanded half of their maximal oxygen intake of 13 ml/[kg.min]."

What the findings mean to you.

After analyzing numerous studies, researchers found the following outcome, as stated in their abstract:

- Available data suggest a loss of 5 ml/[kg.min] per decade continues in old and very old subjects.
- The maximal oxygen intake compatible with continued independence is about 15-18 ml/[kg.min], reached at 80-85 years in sedentary elderly people.
- A regular exercise program can slow or reverse the loss of aerobic fitness, reducing the individual's biological age and prolonging independence. Progressive aerobic training can boost the aerobic power of elderly subjects by at least 5-6 ml/[kg.min], potentially delaying the loss of dependence by as much as 10-12 years.

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Special Announcement

Cenegenics South Carolina just received two prestigious awards for its chic interior design: An Honor Award from the American Society of Interior Designers, a leading organization for interior design professionals; and an Honor Award from the International Interior Design Association, a professional networking and educational association with specialty forums in chapters around the world.

Congratulations to Dr. Mickey Barber, CEO/CMO of Cenegenics South Carolina, and her dedicated team.

HAVE A DELICIOUS, LOW-GLYCEMIC RECIPE?

It's not uncommon. When patients adjust to a new nutritional protocol—such as the Cenegenics® Nutrition Plan—they often identify a few favorite foods as “safe” or “good” . . . then eat them monotonously until no longer palatable. The result? Decreased motivation, bingeing, excessive “cheating” and complete lack of compliance with their program.

The key is variety. Your healthy food choices can—and should—be diverse to ensure a well-rounded diet and offset boredom.

Helping you achieve your health goals is one of Cenegenics' top priorities. That's why we're helping you stay on your nutrition plan by creating a cookbook for our patients, by our patients.

Join us in this exciting project. Please send your favorite low-glycemic/ Paleolithic recipes, quick-fix snacks and restaurant menu options to cvalenti@cenegenics.com. We'll compile the best ones and distribute them to our valued Cenegenics patients to enjoy.

Your good health and well-being are in your control. Shown by these studies, exercise capacity is linked to healthy aging and an opportunity to live out those years with dignity and self-reliance . . . rather than in assisted living.

The Mayo Clinic lists 10 ways regular aerobic exercise helps you live a robust life:

- **Reduce health risks**—including obesity, heart disease, high blood pressure, type 2 diabetes, stroke, certain types of cancer and osteoporosis (with weight-bearing aerobics such as walking)
- **Better management of chronic conditions**—helping to lower high blood pressure, control blood sugar, relieve chronic muscle pain and even prevent subsequent heart attacks in those who had one previously
- **Weight control**—when combined with a healthy diet
- **Stronger immune system**—aerobics activate your immune system, warding off viral illnesses (colds and flu)
- **Cleared arteries**—by increasing the concentration of high-density lipoprotein (HDL) cholesterol and decreasing the concentration of low-density lipoprotein (LDL) cholesterol in your blood for less plaque buildup
- **Strengthens your heart**—pumping blood more efficiently, improving blood flow
- **Mood enhancer**—reduces tension, promotes relaxation, eases depression
- **Increased stamina**—reduces fatigue in the long run
- **Vigorous, independent living as you age**—increased mobility with stronger muscles and enhanced maximal aerobic power
- **Sharper thinking**—researchers suggest at least 30 minutes of aerobics three days a week can reduce cognitive decline in older adults

Cenegenics: a life-changing medical approach. Cenegenics is all about fitness and helping patients like you experience a new definition of aging—one filled with youthful energy (physical and sexual), improved libido, lean muscle mass, reduced body fat, sharper thinking, stronger immune system, an ability to manage stress and an enhanced sense of well-being.

Your expert Cenegenics team goes well beyond the conventional approach, using solid science, thorough diagnostics, periodic follow-ups and well-established protocols to help you live well longer.

Our Gold Standard assessment examines five major fitness components via eight measurements: resting measurement, body composition/bone density, cardiovascular endurance (using the sophisticated sub VO₂ max to evaluate oxygen consumption), muscular strength, muscular endurance, core strength, flexibility and balance.

Using that data, we customize your synergistic action plan, making adjustments along the way so you meet your health goals and successfully manage your aging process.

Maximize your aerobic capacity for healthy aging.

Call 866.953.1510.

Your Cenegenics medical team is dedicated to helping you live a fuller, healthier life.