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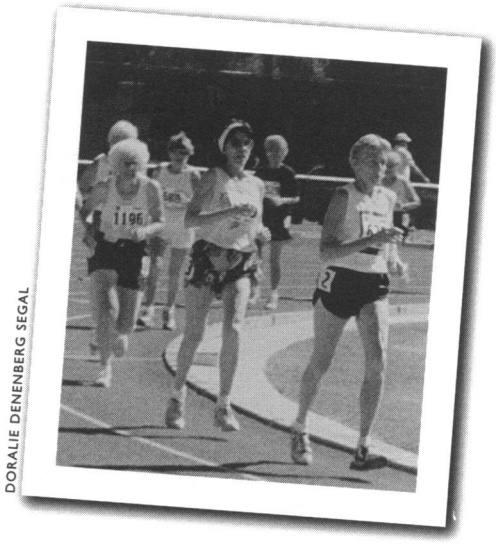
Active Seniors

Protect Them, Don't Neglect Them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THE PUBLIC HEALTH ISSUES that arise from a sedentary, aging U.S. populace are well understood and documented and should be cause for alarm. Ours is a nation of couch potatoes, becoming ever more potato-like as we age. Physical activity decreases with age, with the greatest decline observed among women.[1–3] According to data from the 1992 Behavioral Risk Factor Surveillance System, among people 65 years of age and older, fewer than 30% of men and fewer than 20% of women engaged in any type of regular, sustained physical activity five times a week for 30 minutes at a time.[3] Among people 75 and older, about 38% of men and more than 50% of women reported participating in no leisure time physical activity.[3] Similarly, data from the 1995–1996 *Healthy People 2000 Review* show that 29% of adults 65 and older engaged in no physical activity.[4]

We reviewed data from Phase I of the Third National Health and Nutrition Examination Survey (NHANES III, 1988-1991) and found that the proportion of people leading sedentary lifestyles was considerably higher for older than for younger people.[5] The proportion of women over 70 who reported engaging in no physical activity during leisure time was higher than that for women between the ages of 40 and 69 years. In men and women, physical inactivity advances with age, increasing at a progressively faster rate in people older than 65 years.[5]

Given that one out of eight Americans is now age 65 years or older and that this group is the fastest growing segment of the population,[6,7] the increasing prevalence of sedentary seniors is disturbing indeed.

The United States Surgeon General's Report on Physical Activity and Health,[8] released in July 1996, cites a broad body of research documenting the benefits of a physically active lifestyle. It specifically describes how such a lifestyle can reduce the risk of dying prematurely, particularly from coronary heart disease (the leading cause of death in the United States), hypertension, non-insulin-dependent diabetes, and colon cancer.

Physical activity plays an important role in improving mental health and in promoting a healthy, strong musculoskeletal system, enabling older adults to maintain an optimal level of functioning. A physically inactive lifestyle has damaging effects, including chronic and disabling diseases,

Table. Risk of injury by age group and sex among athletes ages 50 to 91 years participating in competitive sports, Virginia and California, 1996 (*N*= 425)

Category	Sample size[a]	People reporting one or more athletic injuries for a one-year period		Relative risk	95% CI
		Number	Percent		
Age (years)					
50–59	107	66	31.6	1.00	—
60–70	199	101	48.3	0.82	0.67–1.01
>70	113	42	20.1	0.60	0.45–0.80
Sex					
Male	250	139	66.5	1.00	—
Female	162	70	33.5	0.78	0.63–0.96

[a]Totals do not add to 425 because some respondents did not answer every question.

premature aging, a loss of physical independence, and premature mortality. The downward spiral of impairment may be halted and reversed—even in older adults—by adopting a more active lifestyle.[9] If formerly sedentary and unfit Americans become active, they may be able to enjoy the same—or nearly the same—health benefits experienced by their more physically active counterparts.[9]

Jeremy Morris, MD, of the University of London's School of Hygiene and Tropical Medicine, maintains that exercise is today's best buy in public health.[10] His hypothesis takes into account not only the substantial benefits of fitness to the individual and family but also the indirect costs to society of its absence. Dr. Morris places special emphasis on the role that physical activity plays in reducing the risk of coronary heart disease—a disease to which we become increasingly more susceptible if we remain sedentary as we get older.

Given the benefits of a physically active lifestyle, health officials are concerned that the decrease in physical activity among the 70 and over age group and the growing number of American seniors will result in a substantial increase in health care costs. Encouraging our sedentary seniors to reverse their present lifestyle choices is imperative. Yet, there is a serious lack of information available regarding the athletic preferences of older Americans. We also lack knowledge about appropriate training regimens and patterns of injury. This lack of concrete information biases physicians against encouraging—and some seniors from maintaining—a more active lifestyle.

Little standardization exists in profiling the senior athlete or in defining what constitutes an injury. Also, our ability to generalize from the existing research is limited because most studies have focused on the benefits of exercise for those who have not previously exercised, and many studies have included people as young as 40. A small cadre of competitive senior athletes could provide a starting point for research on the patterns of injuries in senior athletes associated with different training regimens and the most effective rehabilitation techniques to help them return to active participation in their chosen sports.

In recent years we have seen a proliferation of specialized athletic competitions for older people, including the Senior Olympics as well as regional, national, and international senior and master competitions sponsored by various communities and sports, medical, and professional health organizations. Unfortunately, however, specialized training regimens designed to meet the unique needs of senior athletes are rare, if they exist at all. In their absence, seniors often train on little better than scaled-down versions of their younger counterparts' schedules. For example, younger competitive long-distance runners typically train six or even seven days a week, often twice a day, alternating hard with easy days. Is this the optimal regimen for seniors—or might some require 48 or even 72 hours between workouts to recover optimally? What training patterns are the strongest predictors of seniors' athletic injuries? For example, what is the optimal schedule that should be used to train older sprinters that would avoid hamstring strains and the consequent curtailment of physical activity for a significant time period? What are the indications that active seniors need longer recovery periods after exertion than younger people in order to avoid injuries?

The research base is not sufficient to answer these and many other training questions. In particular, little is known about patterns of injuries. Systematic research

examining athletic injuries in people over 50 is very limited not only in the United States but internationally as well. Do senior athletes suffer a greater number of sports injuries than their younger peers? Anecdotal information and popular beliefs suggest that they do. However, in the absence of a solid body of research, this impression cannot be validated. Should a healthy, but sedentary, senior who is trained to walk or jog over a 20- to 26-week study period be assessed with or compared to truly active seniors who have been running for 10—or more—years? We don't think so. Similarly, we know little about differences in technique for the rehabilitation and recovery of sports injuries in older and younger athletes. Do the immune systems of older athletes respond in the same way as those of their younger counterparts? These knowledge gaps reflect a pattern of neglect and insensitivity to the needs of our active elders. Recognizing the need to know more about injuries in senior athletes and about their training habits, we distributed a survey at two senior competitions, one in Virginia and another in California. Consequently, we have begun to assemble a database of competitive senior athletes' training patterns, their injury profiles, and satisfaction with their primary sports.

One of the authors (DDS) had developed a questionnaire for senior athletes on their training patterns and injury rates. The questionnaire was distributed to the 585 senior athletes ages 55 years and older who participated in the 1996 Virginia Golden Olympics and to 1060 participants ages 50 and older who competed in Sacramento in 1996 in California's state qualifying games for the U.S. National Senior Games. A total of 425 questionnaires were returned by athletes between the ages of 50 and 91, for a response rate of 25.8%. Thirty-eight percent of the respondents were women.

Our findings show that age did not necessarily predict injury in senior athletes and that age increments were not related to increments in self-reported injuries. In fact, the oldest age group (older than 70) was less likely to report injuries than the younger groups (50–59 or 60–70) (see Table). We recognize that this may reflect a "survivor effect." The athletes in the oldest age groups who remain in competition either have not had significant injury problems or have had an intuitive hunch about how and when to train hard and how and when to ease off.

Considerable research remains to be done on both active seniors and senior athletes. If some of us, as we age, are to remain active, healthy, energetic, and vigorous citizens who can serve as role models and exemplars for our more sedentary peers and younger acquaintances, we need considerably more specific information on the causes of injuries and the most effective training regimens, the most effective treatment modalities and rehabilitation schedules, and who best to deliver training and injury rehabilitation.

The increase in numbers of senior athletes competing in the U.S. National Senior Sports Classic-The Senior Olympics confirms that this is a growing segment of our population. In 1987, 2500 senior athletes competed in St. Louis; two years later the total was up to 3400. By 1991, 5000 seniors competed in Syracuse, and the number reached 10,000 in 1997 in Tucson. Clearly, this population deserves more attention; theirs is a lifestyle that epitomizes the public health goals for our nation,[11] goals toward which we as a nation devote considerable energy and planning. Now it is time to invest societal resources in the health of our elders so that we can reap the dividends.

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