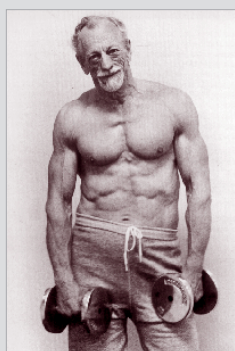


# SPRC

## Exercise for Life

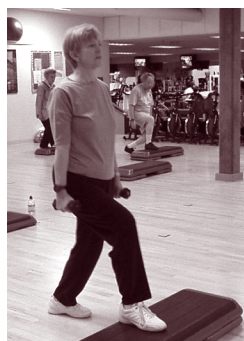


The public health establishment has defeated polio, tuberculosis, and other diseases that have cut short millions of lives. Now it faces an equally daunting challenge: ensuring the “successful aging” of America.

100 years ago, average American life expectancy was 47. Now, American men can anticipate a lifespan of about 74 years, and women can expect to live to nearly 80. The American population as a whole is steadily aging: the number of persons over 65 doubled between 1960 and 1994, and it’s expected to double again between now and 2025. Programs promoting successful aging must be developed to prevent and alleviate age-related problems for individuals and society overall.

Programs to promote successful aging aim to lengthen our lives while decreasing illness, improving physical and mental functioning, and enhancing overall quality of life. It’s important that we enjoy our “extra” days. Furthermore, when age-related disability is reduced, the community as a whole saves significantly on medical costs.

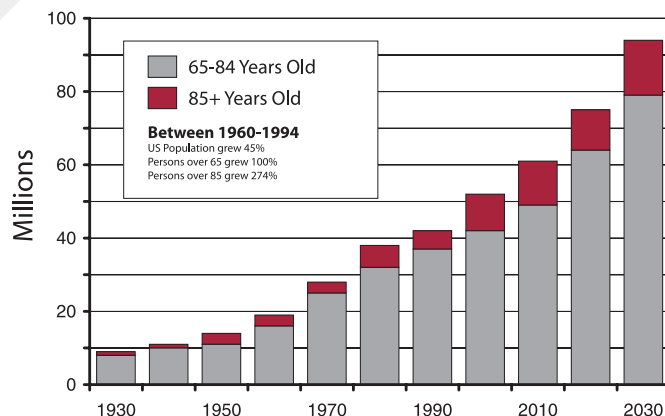
Age-related disability is more preventable than one might think. A regular routine of physical activity, for example, can work wonders. Exercise reduces the risk of some of the leading causes of illness and death in the U.S., including heart disease, diabetes, obesity, and colon cancer. Physical activity so powerfully affects the body and the mind that researchers in the SPRC Successful Aging Lab have made the benefits of exercise the focus of their studies.



## Stanford’s Approach

For over fifteen years, researchers in SPRC’s Successful Aging Lab have been identifying strategies for helping older adults prevent and control chronic disease and improve overall quality of life. Aging is a complex process that involves many variables (genetics, lifestyle factors, etc.), so it is a challenge to come up with “one-size-fits-many” programs for successful aging. But exercise benefits everyone, even the oldest old, so SPRC researchers are working hard to create customizable yet broadly applicable programs for regular physical activity.

An Aging America



Some of SPRC’s studies focus on how best to help groups with particular needs. For example, SPRC has tailored exercise programs for family caregivers and for adults with sleep difficulties. Other studies examine the effectiveness of a particular method. SPRC has learned, for instance, that seniors are more likely to stick with an exercise program that is based in the home (instead of in classes) and supported with counseling by phone.

SPRC’s Successful Aging Lab is working toward its ultimate goal: spreading its research results into the broader community, where they can benefit more and more people.

## Fit, Firm, Flexible, and Free from Pain

In one recent study (Stanford-Sunnyvale Health Improvement Project II), SPRC researchers examined how physical well-being in older adults would be affected by different types of physical activity. Half of study participants (“Fit & Firm”) took up a program of endurance and strength training, while the other half (“Stretch & Flex”) focused on stretching and flexibility exercises. After a year, Fit & Firm participants reported improvements in endurance, upper body strength, and confidence in lifting heavy objects. The exciting result from Stretch & Flex was a reduction in participants’ overall pain levels. Thus, both programs benefited participants as well as researchers, who took away important insights that will shape other initiatives.



## Caring for Family Caregivers

More than 7 million people in the US (70% of them women, mostly ages 50 and older) are caregivers for loved ones who are ill or disabled. SPRC undertook the first systematic investigation of a program specifically aimed at improving the physical health of this often isolated group. 100 women, aged 49-82, were randomly assigned to either a nutrition counseling program or a home-based exercise program (brisk walking, indoor cycling or exercise videotapes) supplemented by supportive phone calls. In the end, all of the women in the study benefited. The nutrition counseling group developed healthier eating habits, suggesting that this program could work well for other isolated populations. The exercise group experienced significant improvements in sleep quality and energy expenditure, as well as significant reductions in stress-induced blood pressure levels.

## Interview with Abby King



*Abby C. King, Ph.D., is an Associate Professor at Stanford. She joined the Stanford community in 1983 and now heads the SPRC's Successful Aging Lab. Her research focuses on health promotion and chronic disease prevention and control in older adults, including the adoption and maintenance of regular physical activity.*

older age. Our inter-disciplinary approach is also unique; our comprehensive view includes physical health, psychological functioning, and other aspects of quality of life, such as social and role functioning. We also are interested in the role of the physical environment in promoting or impeding healthful lifestyles.

### **What are some of the functional and cognitive benefits that older adults can get from a regular program of physical activity?**

Regular physical activity, even at a moderate level (akin to a brisk walk), has a positive impact on both overall stamina and the ability to carry out day-to-day activities. Middle- and older aged adults who are regularly active report having more energy, less stress, greater levels of confidence and self-esteem, more positive mood and a greater sense of satisfaction with their lives than their less active peers. There are many beneficial exercise options, so people should find enjoyable and convenient activities that encourage increased movement on a daily basis.

### **What are some of the future studies you have planned at the Successful Aging Lab?**

We're evaluating the impact of regular moderate-intensity physical activity programs on sleep quality among older adults with sleep complaints. We're combining programs for physical activity and dietary change. We're looking at how best to utilize older adults as health promotion counselors for their peers. We're also evaluating technologies (e.g., computerized phone systems, handheld computers) that give us a more convenient and less expensive way to provide counseling.

### **How is Stanford's approach to successful aging unique?**

We view successful aging from a life span perspective: the factors influencing how people age begin early in life. Many of our studies focus on persons ages 50 and older. Lifestyle modifications (diet, exercise) made at this time—when most individuals still have a number of years remaining—can ameliorate the diseases and deficits of function that arise in