

## INTRODUCTION

The goal of gerontologists and applied health scientists is to change the shape of the human survival curve so that most individuals can live longer lives. However, most people would agree that a long life without health and physical independency is undesirable, yet many live their terminal years in a state of morbidity, or complete physical dependence and poor health. Discussions of extending the life span should always be entangled with issues of quality of life. Quality of life in advanced age depends to a large degree on the ability to do the things one wants to do independently, safely, without undue pain, and for as long as needed (Rikli & Jones, 2001; Spirduso, 2005). This physical ability is strongly pre-determined by a level of actual functional fitness thus preserving functional fitness becomes an issue of high interest.

In order to maintain certain functional fitness status, attention to physical activity levels is one of the easiest ways to offset physical dependency or postpone impairment. The beneficial effects of physical activity on various functional fitness components such as aerobic endurance, muscle strength, flexibility, and balance in older adults have been well established (Baker, Atlantis, & Fiatarone Singh, 2007; Brown et al., 2000; Buchman, Boyle, Wilson, Bienias, & Bennett, 2007; Cao, Maeda, Shima, Kurata, & Nishizono, 2007; Capodaglio, Capodaglio Edda, Facioli, & Saibene, 2007; Conn, Minor, Burks, Rantz, & Pomeroy, 2003; DiBrezza, Shadden, Raybon, & Powers, 2005; Frankel, Bean, & Frontera, 2006; Haskell et al., 2007; Hauer, Becker, Lindemann, & Beyer, 2006; Judge, Lindsey, Underwood, & Winsemius, 1993; Paterson, Jones, & Rice, 2007; Stewart, 2005). **The ability to measure those components is needed for an early detection of potential decline which is crucial for planning effective and successful preventive programs. An accurate assessment of initial functional status is also important for predicting risk factors for functional dependence, institutional discharge planning, or documenting and evaluating those preventive strategies.**

Functional fitness is defined as having a physical capacity to perform normal everyday activities of daily living safely and independently without undue fatigue (Rikli & Jones, 2001). But having the adequate physical capacity does not ensure independency itself. There are other factors that play an important role such as health status (number of chronic conditions), cognitive functioning, sensomotoric functioning, motor control, or environment. As illustrated in Figure 1,