

Figure 1¹

As people age they become more diverse. This explains why individualized care rather than protocol-based care is especially important in the geriatric population.

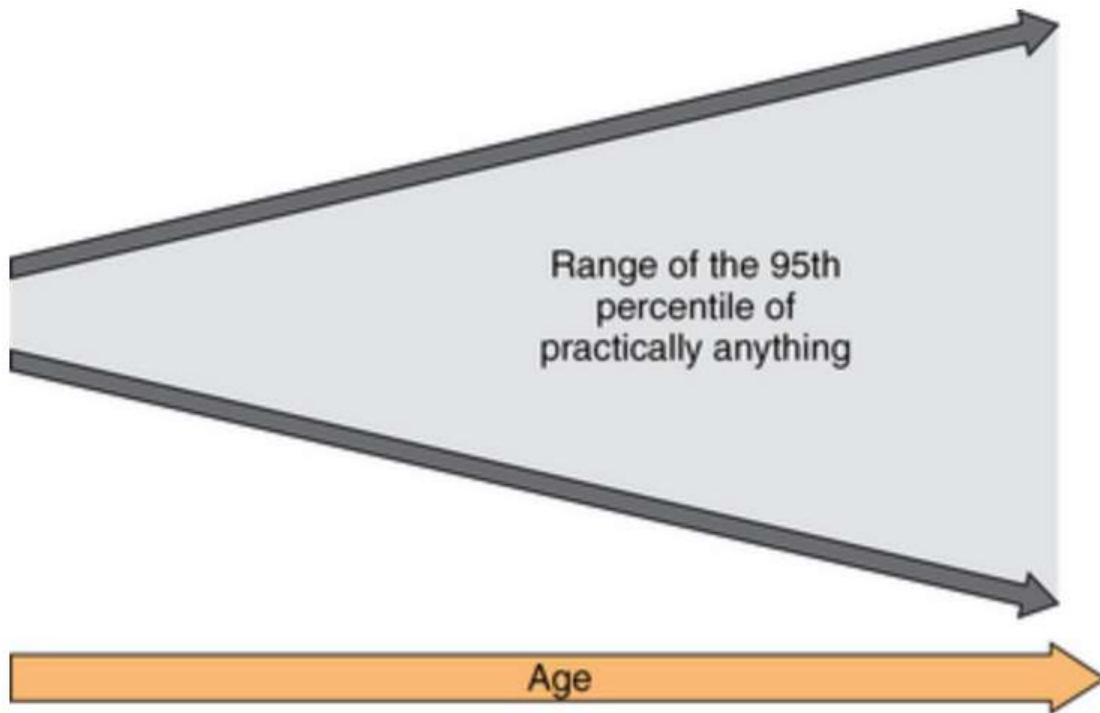


Figure 2

In the past, all of the decline in function that occurs between young adulthood and old age was called normal aging. We now know that approximately one fourth can be attributed to disease, one fourth to disuse (e.g., sedentary lifestyle, lack of mental stimulation), and one fourth to misuse (e.g., smoking, injuries from contact sports, and adverse effects of prescription and/or recreational drugs). Only about one fourth can be attributed to physiologic aging.¹

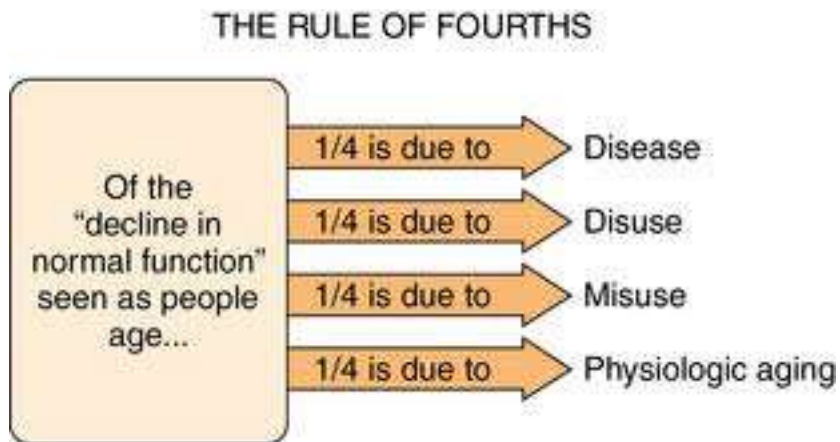


Figure 3²

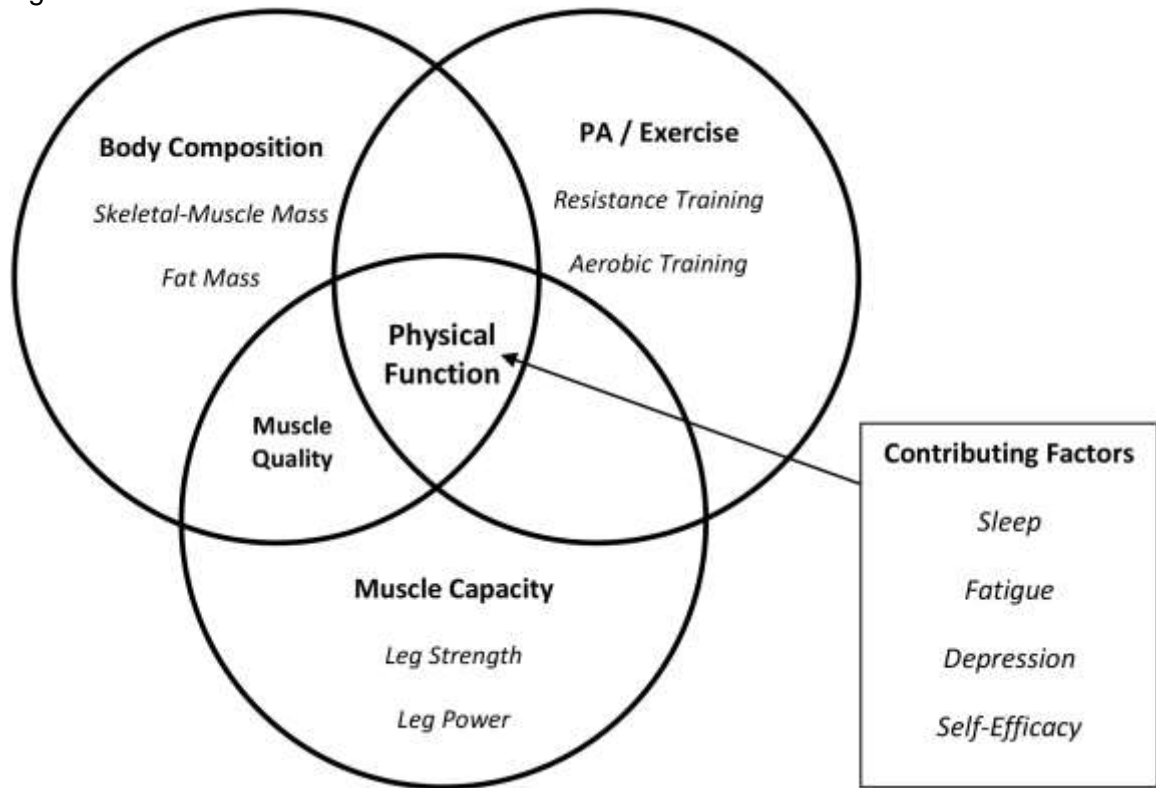


Figure 4³

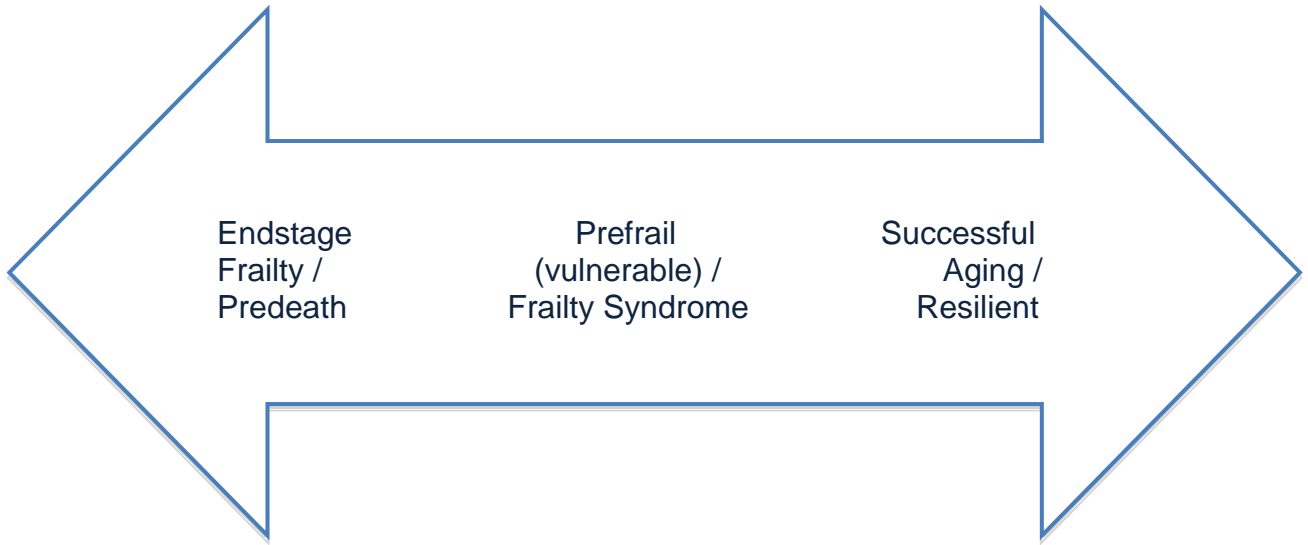


Figure 5

Simplified schematic of the development of physical disability among older adults and the potential of exercise to slow or prevent this development. The use of a dashed line highlights the variability of responsiveness and that standard exercise programs may be insufficient to prevent disability among several sub-groups of seniors.

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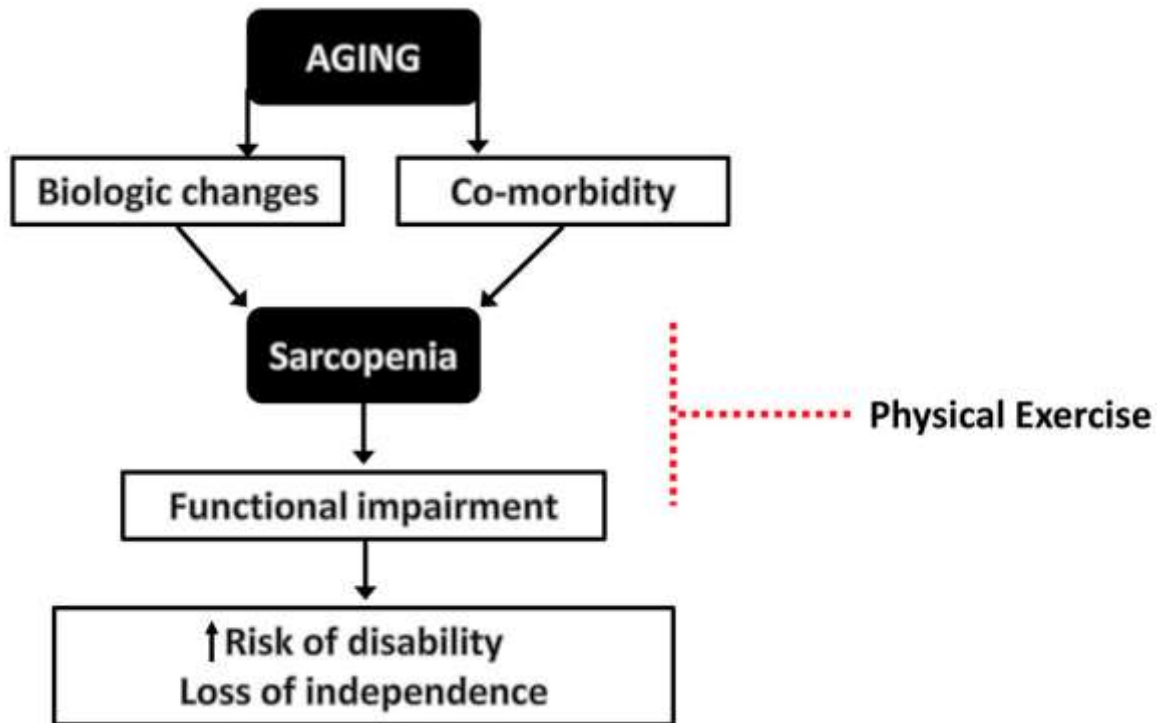


Figure 6⁵

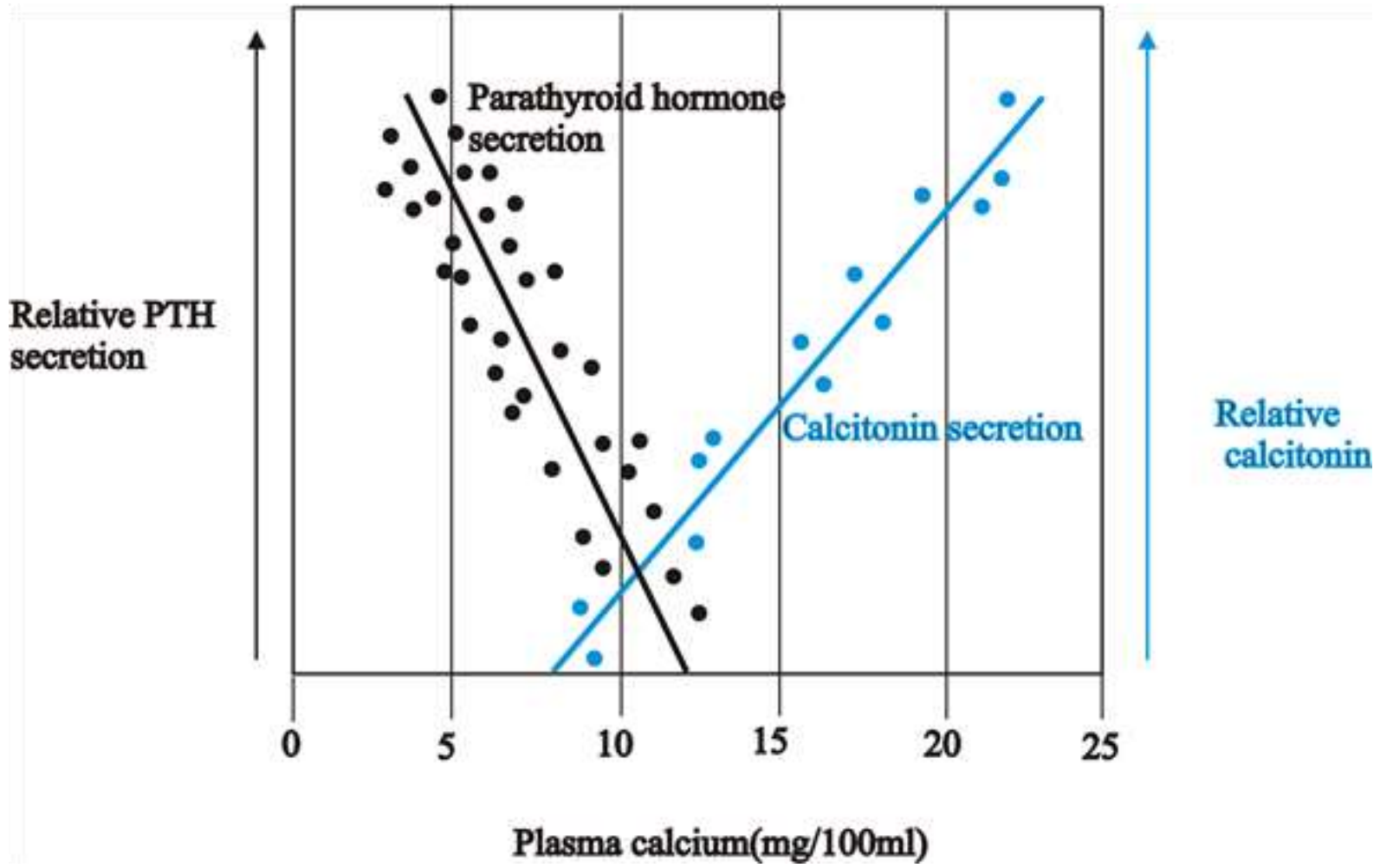


Figure 7.

Relation between the change in peak oxygen consumption (VO_{2peak}) and the change in left ventricular ejection fraction. CONT=non-exercise control; MICT=moderate-intensity continuous training; HIIT=high-intensity interval training. ⁶

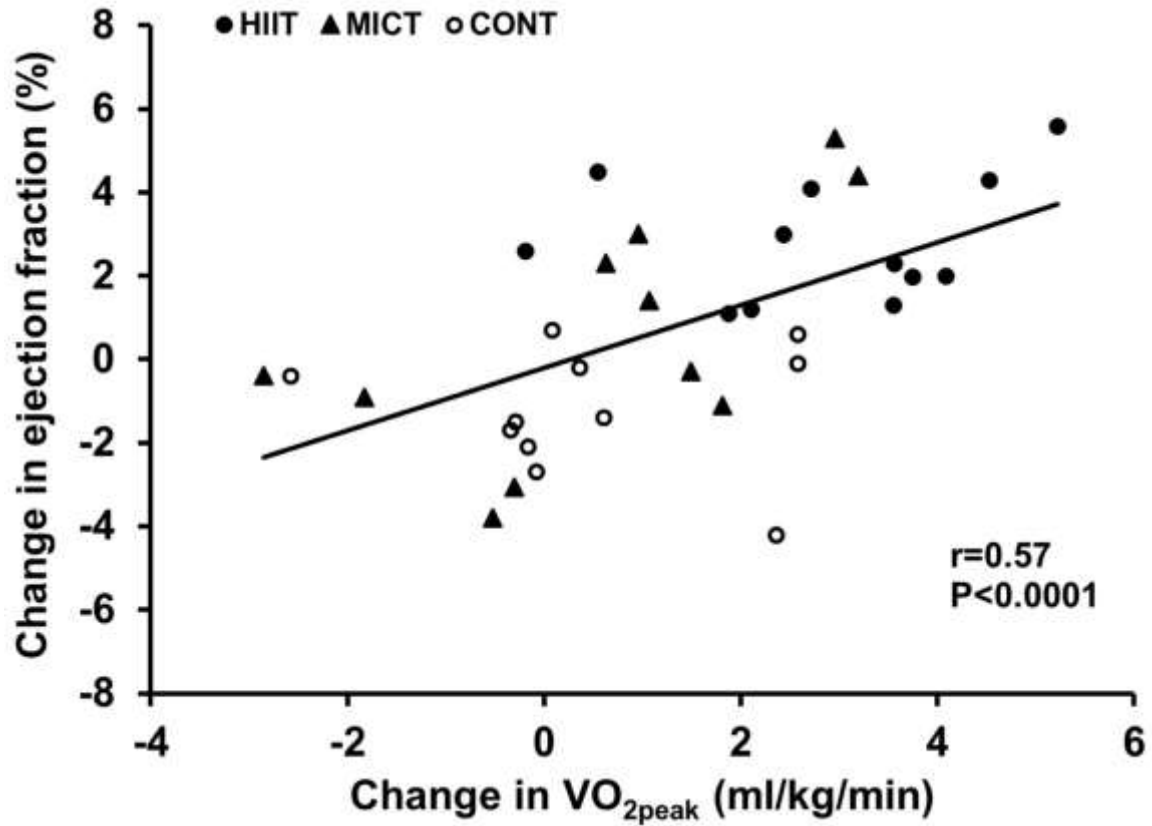
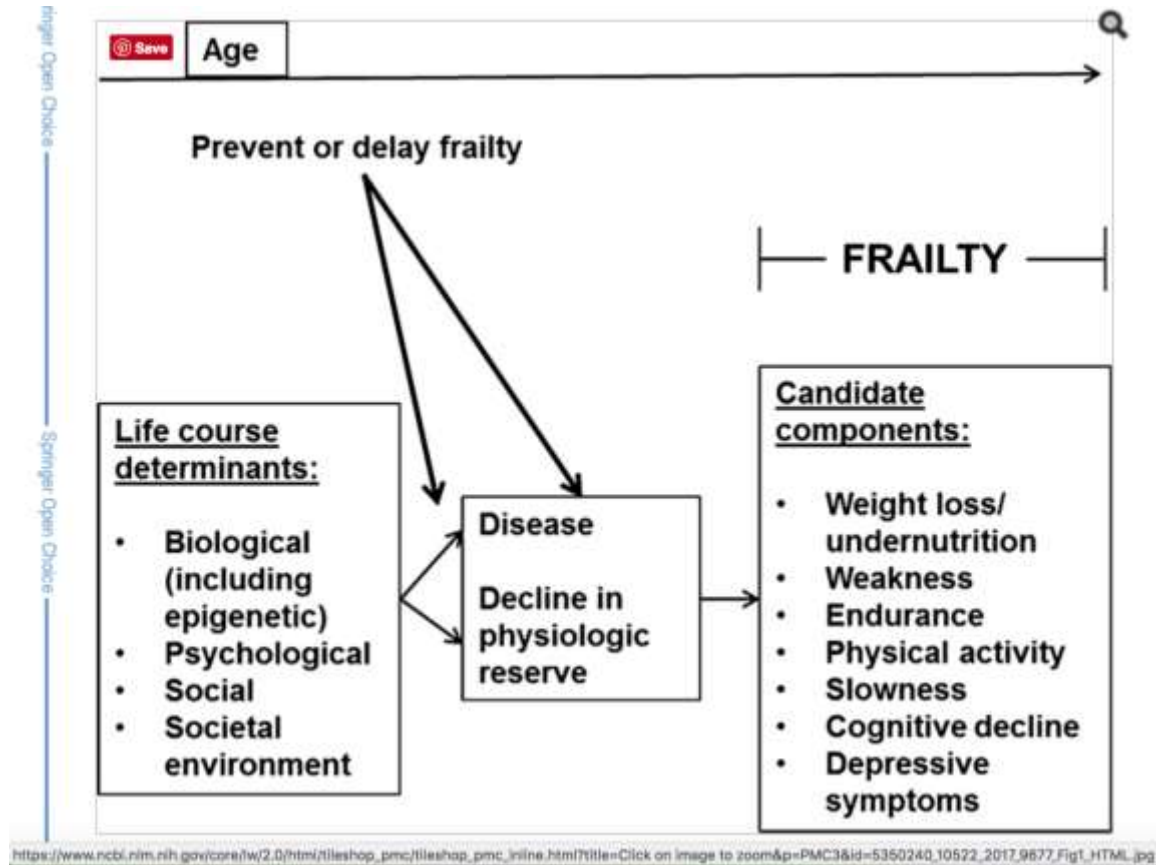


Figure 8⁷



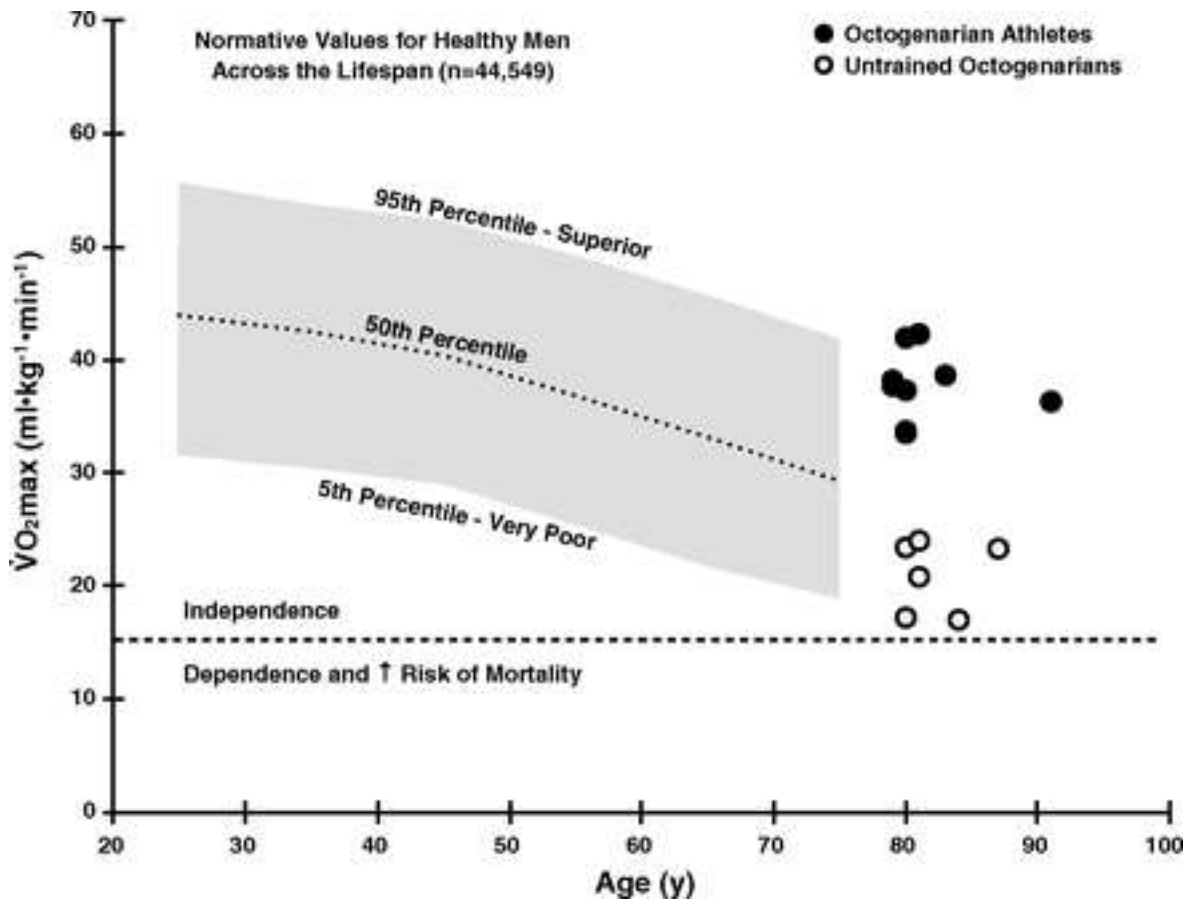
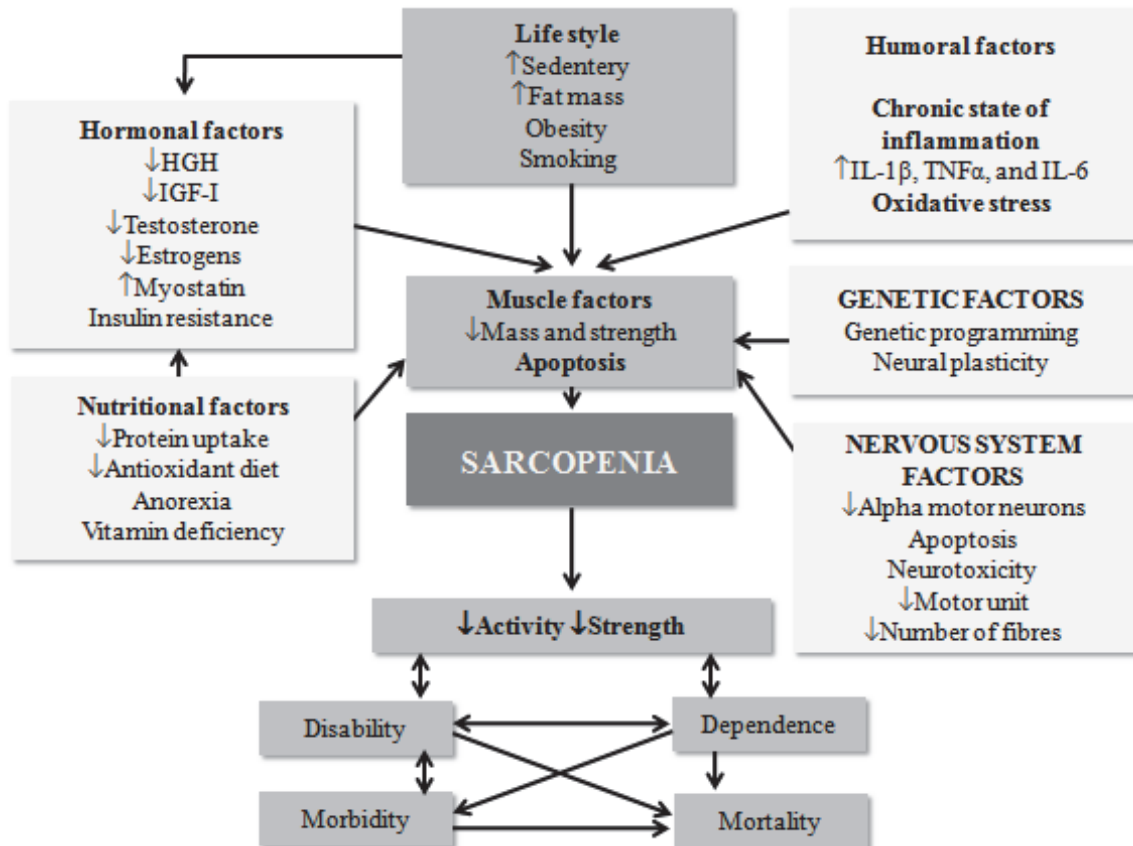


Fig. 9. ⁸

Individual $\dot{V}O_{2max}$ data from the octogenarian lifelong endurance athletes and healthy untrained octogenarians. The dotted line represents the prognostic exercise capacity [5 metabolic equivalents (METs), $17.5 \text{ ml} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$] generally necessary for an independent lifestyle and associated with an increased risk for mortality as described by Meyers et al. (41). The normative values for healthy men across the life span ($n = 44,549$) were originally obtained from the Cooper Institute in Dallas, TX, and have been summarized by the American College of Sports Medicine (1).

Figure 10
 Scheme of the different etiological sarcopenia mechanism and their consequences ⁹



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