



## Lifestyle-Induced and Aging-Induced Changes in Body Composition and Physical Fitness: Focus on Healthy Longevity

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### Message from the Guest Editor

Aging is characterized by a progressive, physiological decline of several biological functions. Modifications in body composition (an increased percentage of abdominal fat and reduction in fat-free mass); sarcopenia, associated with an increase in circulating pro-inflammatory cytokines and the impairment of mitochondrial function; and the reduction of oxidative capacity contribute to the onset of dysmetabolic diseases in aging. Furthermore, the 5–10% VO<sub>2</sub> max reduction per decade, responsible for an increased risk for cardiovascular diseases (CVDs), along with the reduced force-generating capacity of skeletal muscle and an increase in protein damage, due to a compromised autophagic response, are additional hallmarks of aging. Risk factors, such as a sedentary lifestyle, and protective ones, such as an active lifestyle and good nutritional habits, play a key antagonistic role in determining quality of life and successful aging.

This Special Issue aims to focus on the effects of an active life and appropriate lifelong nutritional habits on physical fitness and body composition in order to achieve successful aging and to counteract non-communicable disease development.





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## Message from the Editor-in-Chief

Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Discovery and advances in this research field play a critical role in providing a scientific basis for decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards. *IJERPH* provides a forum for discussion of discoveries and knowledge in these multidisciplinary fields. Please consider publishing your research in this high quality, peer-reviewed, open access journal.

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