

Special Issue on

Exercise for Healthy Aging: Metabolic, Anti-Inflammatory, and Redox-Related Roles of Exercise in Age-Related Conditions

CALL FOR PAPERS

The concept of health aging has been expanding with the rapid growth of the elderly population in developing countries. Concerns with economic costs associated with possible loss of independence with aging have brought attention of researchers within different fields. As a consequence, the so-called “2030 problem” has been vastly discussed during the last decade, including health-related disciplines.

Although expected, aging implies a natural physiological decline of bodily functions which is involved in the onset of several chronic degenerative diseases, such as diabetes, metabolic syndrome, and Alzheimer’s and cardiovascular diseases. While these are triggered by different stimuli and present diverse development and progression, age-related chronic degenerative diseases share two common etiology backgrounds: chronic oxidative stress and inflammatory status.

Fortunately, exercise interventions have proved to be an effective and nonpharmacological means of delaying the negative effects of aging on functional and metabolic parameters. Several evidences have shown that exercise interventions can induce a large broad of benefits for elderly people through the modulation of both inflammatory status and redox status, which greatly impacts proteostasis, insulin sensitivity, body composition (*e.g.*, adipose tissue, skeletal muscle), hormonal profile, and others.

Thus, we invite authors to contribute with original research articles, as well as review articles, that will clarify our understanding of the underlying mechanisms by which exercise interventions promote improvements on the health of elderly people.

Potential topics include but are not limited to the following:

- ▶ Anti-inflammatory effects of exercise
- ▶ Effects of exercise training on oxidative-induced damage
- ▶ Effects of exercise on skeletal muscle regeneration and growth
- ▶ Effects of exercise on age-associated insulin resistance
- ▶ Hormonal responses during exercise and training in the elderly
- ▶ Endothelial dysfunction, cardiovascular risk, and the effects of exercise
- ▶ Metabolomic profile with aging and the effects of exercise
- ▶ Antioxidant and anti-inflammatory strategies combined with exercise training for health achievement/maintenance
- ▶ Exercise training as a nonpharmacological tool for mental health improvement

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/omcl/eham/>.

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