

There is consistent and strong scientific evidence about the numerous health benefits related to the physical activity (PA). Regular PA can improve physical fitness and health and assist in the prevention of various diseases. In general, physically active adults are healthier and present higher physical performance in comparison with inactive adults worldwide. Among some desirable behaviors, PA can be considered as part of a healthy lifestyle and can be categorized into occupational, sports, conditioning, household, or other activities involving movement of the body generated by skeletal muscles with energy expenditure. Aligned with that, it is undeniable the relevance of the physical inactivity as a risk factor for premature mortality and for cardiovascular disease and a variety of other chronic diseases, including diabetes mellitus, cancer (colon and breast), obesity, hypertension, bone and joint diseases (osteoporosis and osteoarthritis), and depression. Moreover, exercise in patients with hematologic cancer, like leukemia, could improve immune function.

Due to the relevance of the PA, it is important to stimulate behaviors involving the physical practice. There are several factors that can influence these behaviors, such as: personal (biological, health and psychological attributes), social (family, affiliation group, and work factors), and environmental (contexts for different forms of PA and policy factors that could determine availability of relevant settings and opportunities).

The outbreak of the coronavirus disease 19 (COVID-19) has interfered in different factors of the PA behaviors. Depending of the severity of the COVID-19 in an individual, there are limitations to performed PA. Furthermore, aiming to contain the COVID-19 infections and to reduce interaction between infected and non-infected individuals, strategies and restrictive policies have been suggested, such as quarantine, local confinement, lockdown and isolation. It is clear that, while the individuals are confined at home the level of PA, in general, decreases, due to the reduction of (i)

daily activities outside, (ii) the participation in social events and, (iii) sometimes, of laboral activities. This may have a negative impact in general health because it can contribute to sedentary behaviors. Besides the confinement, it is important to consider other actions to protect against the COVID-19 infection that is the universal use of masks.

In addition to those facts, as an environmental factor, in confinement, the sunlight exposure is reduced. The relevance of the ultraviolet B radiation present in sunlight to the active production of vitamin D in the organisms is well known. This vitamin has a relevant role to metabolic responses and protection against diseases, including cancer. Vitamin D deficiency has been recognized as an undesirable global public health problem and it plays a wide role in health and in the prevention of several diseases, including the COVID-19.

As the reduction of the muscle strength is observed in the individuals that had COVID-19, PA or exercises could be important for their rehabilitation. There are different modalities of exercises that could be also used for them, including the whole-body vibration exercises to improve the muscular performance.

Putting together, people in the world is living, or is trying to live, in conditions to maintain a minimal, but convenient level of PA to have health to counteract the bad situation of the COVID-19 up to a definitive and confident vaccine be available to the human beings. The researchers are working hard to aid the world population to win this fight against the COVID-19 and the sedentary behaviors.

Naturally, COVID-19 and the sedentarism are problems for the world, but the continuous education about the importance of PA, the studies about the effects of medications that can be used in the treatments of diseases, the control of use of drugs, as the pesticides, and the discussion about the biological and legal aspects of reprocessing of medical-hospital material are welcome to contribute to improve the health.

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