



Physical Activity as a Public Health Guide to Prevent from Coronary Heart Disease

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Dear Editor-in-Chief

Cardiovascular disease (CVD) not only includes the heart but also the coronary heart vessel diseases which is a subgroup of CVD (1). Coronary heart and vessel diseases and related inflammatory disorders are known as the important reasons of mortality in the world (2).

Coronary heart diseases could also potentially be also a reason for depression, affecting a high percentage of the population. There is a direct relationship between depression and increased risk of coronary heart disease. So, it is not surprising to see a high rate of depression among patients with Coronary Heart Disease in comparison with the general population (3,4).

Positive effects of regular physical activity by improving the fitness and endurance levels of individuals is highly accepted, that could affect individuals physical and psychological condition by making a decrease in chronic disease and mental disorders and also other causes of mortality not only in those with coronary heart disease patients but also the healthy population (5,6). Regular exercise, training is a way to prevent coronary heart diseases and death (8). Using exercise as a therapy is well-known in developed and developing countries for individuals who are suffering from any physical or psychological issues (9).

The minimum accepted amount of physical activity has already suggested by the WHO including 150 min of moderate- or 75 min of vigorous physical activity every week for a healthy population aged 18 to 64 years (7).

Nowadays everyone is engaged with a busy schedule and often doing exercise in gym or clubs is not feasible. New patterns of exercise trainings should be designed based on the real situation of life. Those exercises should be feasible to do at home or office. Those patterns of exercise trainings should be easy to do without a need for any specific guide or environment or equipment. In addition, it is important to advertise and promote a healthy life style among population, who are busy with their work (8). Lack of guidelines and instructions for home/office-based exercises is a point that should be considered by the governments.

Healthy life styles are important for public health and absence of attention to this can affect not only the society, but also personal lives. Attention to the level of physical activity among populations is a cost benefit strategy, because it can substantially reduce healthcare costs to the government and private sectors for the treatments.



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So, it is strongly suggested to focus on improving the level of physical activity among healthy individuals by preparing feasible guides of exercise training, useful for different age groups and easy to do, individually or in groups in any environment.

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Conflict of Interest

The authors declare that there is no conflict of interests.

References

1. Sanchis-Gomar F, Perez-Quilis C, Leischik R, et al (2016). Epidemiology of coronary heart disease and acute coronary syndrome. *Ann Transl Med*, 4(13): 256-262.
2. Wirtz PH, von Känel R (2017). Psychological stress, inflammation, and coronary heart disease. *Curr Cardiol Rep*, 19(11):111-118.
3. Vaccarino V, Badimon L, Bremner JD, et al (2020). Depression and coronary heart disease: 2018 position paper of the ESC working group on coronary pathophysiology and microcirculation. *Eur Heart J*, 41(17): 1687-96.
4. Kargarfard M, Shariat A, Shaw BS, et al (2015). Effects of Polluted Air on Cardiovascular and Hematological Parameters After Progressive Maximal Aerobic Exercise. *Lung*, 193(2): 275-81.
5. Ács P, Betlehem J, Oláh A, et al (2020). Measurement of public health benefits of physical activity: validity and reliability study of the international physical activity questionnaire in Hungary. *BMC Public Health*, 20(1): 1198-1208.
6. Kargarfard M, Lam ETC, Shariat A, et al (2016). Effects of endurance and high intensity training on ICAM-1 and VCAM-1 levels and arterial pressure in obese and normal weight adolescents. *Phys Sportsmed*, 44(3): 208-216.
7. World Health Organization (2010). *Global recommendations on physical activity for health*. World Health Organization. <https://www.who.int/publications/i/item/9789241599979>
8. Shariat A, Anastasio AT, Soheili S, et al (2020). Home-based fundamental approach to alleviate low back pain using myofascial release, stretching, and spinal strengthening during the COVID-19 pandemic. *Work*, 67(1): 11-19.