

Role of exercise and physical activity in secondary prevention of myocardial infarction.

Andre Jean*

Department of Internal Medicine, AHEPA University Hospital, Thessaloniki, Greece

Introduction

Myocardial infarction, commonly known as a heart attack, is a significant health concern worldwide and a leading cause of morbidity and mortality. Once a myocardial infarction occurs, the focus shifts towards secondary prevention strategies to reduce the risk of subsequent cardiac events. Among these strategies, exercise and physical activity have emerged as crucial components in the management and rehabilitation of individuals who have experienced a myocardial infarction. This article aims to explore the role of exercise and physical activity in the secondary prevention of myocardial infarction and its associated benefits [1].

Regular exercise and physical activity have been extensively studied and are well-known for their positive impact on cardiovascular health. In the context of secondary prevention of myocardial infarction, engaging in regular physical activity offers several significant benefits:

Exercise helps improve cardiac output, enhances myocardial oxygen supply, and promotes the growth of collateral blood vessels, which can compensate for compromised blood flow in the affected areas. Physical activity aids in managing several modifiable risk factors associated with myocardial infarction, including hypertension, dyslipidemia, obesity, and insulin resistance. Regular exercise helps control blood pressure, improve lipid profiles, manage body weight, and enhance glucose metabolism [2].

Exercise promotes the dilation of blood vessels, improves endothelial function, reduces inflammation, and lowers oxidative stress. These effects contribute to better vascular health and reduce the risk of atherosclerosis and subsequent cardiovascular events. Regular physical activity has been shown to improve mood, reduce anxiety and depression, and enhance overall psychological well-being. These benefits are particularly relevant for individuals recovering from a myocardial infarction, as they often experience psychological distress and adjustment difficulties.

To maximize the benefits of exercise in secondary prevention, it is essential to develop an individualized exercise prescription based on a person's medical history, current physical condition, and preferences. The exercise regimen should include a combination of aerobic exercise, resistance training, and flexibility exercises. The American Heart Association

and other professional organizations provide guidelines for exercise prescription, including frequency, intensity, duration, and progression [3].

Cardiac rehabilitation programs play a pivotal role in facilitating exercise and physical activity in individuals with a history of myocardial infarction. These programs provide a structured and supervised environment where patients receive tailored exercise prescriptions, education on risk factor management, and psychosocial support. Participation in cardiac rehabilitation has been shown to improve exercise capacity, reduce recurrent cardiac events, enhance quality of life, and lower mortality rates [4].

Challenges and considerations

While exercise and physical activity are highly beneficial in the secondary prevention of myocardial infarction, certain considerations and challenges must be addressed. These include assessing individual fitness levels, addressing comorbidities, ensuring adequate supervision and monitoring during exercise, and encouraging long-term adherence to exercise regimens [5].

Conclusion

Exercise and physical activity play a crucial role in the secondary prevention of myocardial infarction. Their benefits extend beyond cardiovascular health and encompass improved quality of life, psychological well-being, and reduced mortality rates. Healthcare professionals should emphasize the importance of exercise as a cornerstone of secondary prevention strategies and promote the integration of structured exercise programs, such as cardiac rehabilitation, into the comprehensive care of individuals with a history of myocardial infarction. By embracing regular physical activity, patients can actively participate in their own recovery, reduce the risk of recurrent cardiac events, and enhance their overall well-being.

References

1. Skinner JS, Cooper A, Feder GS. Secondary prevention for patients following a myocardial infarction: Summary of NICE guidance. *Heart*. 2007;93(7):862-4.
2. Vasankari V, Halonen J, Vasankari T, et al. Physical activity and sedentary behaviour in secondary prevention

*Correspondence to: Andre Jean, Department of Internal Medicine, AHEPA University Hospital, Thessaloniki, Greece, E-mail: andre@jean22.com

Received: 28-May-2023, Manuscript No. AACHD-23-101702; Editor assigned: 31-May-2023, PreQC No. AACHD-23-101702(PQ); Reviewed: 14-Jun-2023, QC No. AACHD-23-101702; Revised: 19-Jun-2023, Manuscript No. AACHD-23-101702(R); Published: 26-Jun-2023, DOI: 10.35841/aachd-7.3.151

- of coronary artery disease: A review. *Am J Prevent Cardiol.* 2021;5:100146.
3. Darden D, Richardson C, Jackson EA. Physical activity and exercise for secondary prevention among patients with cardiovascular disease. *Curr Cardiovasc Risk Rep.* 2013;7:411-6.
 4. Alves AJ, Viana JL, Cavalcante SL, et al. Physical activity in primary and secondary prevention of cardiovascular disease: Overview updated. *World J Cardiol.* 2016;8(10):575.
 5. Chiva-Blanch G, Badimon L, Estruch R. Latest evidence of the effects of the mediterranean diet in prevention of cardiovascular disease. *Curr Atheroscler Rep.* 2014;16:1-7.