World Physiotherapy
Europe region

Factsheet – Physiotherapy and Cardiovascular Diseases (CVDs)

Professional Practice Working Group (PPWG)

NOTED
14th & 15th May 2026
Pristina, Kosovo

Cardiovascular diseases (CVDs) encompass conditions affecting the heart and blood vessels, including coronary artery disease, heart failure, stroke, and peripheral artery disease[1]. CVDs are primarily driven by modifiable behavioural and metabolic risk factors, including hypertension, diabetes, dyslipidaemia, obesity, smoking, and physical inactivity[2]. CVDs remain the leading global cause of death, accounting for about 18.6 million deaths annually, or 32% of all global mortality[1,3]. The most significant burden falls on people in the lower socioeconomic groups[4] and low- and middle-income countries[5], with high blood pressure being the most significant modifiable mortality contributor[2].

PHYSICAL ACTIVITY AND CARDIOVASCULAR DISEASES

Physical activity is fundamental to CVD prevention and management. Insufficient physical activity is a major independent risk factor, contributing to over five million deaths annually[3]. Regular exercise lowers the risk of coronary heart disease, stroke, heart failure and mortality[6]. Physical activity improves endothelial function, reduces inflammation and oxidative stress, enhances lipid and glucose metabolism and may exert lasting protective effects through favourable epigenetic modifications[1].

In line with current international recommendations, it is recommended that adults engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity per week, along with muscle-strengthening exercises performed at least twice weekly[3,6].

ROLE OF PHYSIOTHERAPY IN CARDIOVASCULAR DISEASE PREVENTION AND MANAGEMENT

Physiotherapists play a vital role throughout the continuum of cardiovascular care, from prevention to rehabilitation[5,7].

In primary prevention, physiotherapists identify risk factors through screening and education, promoting physical activity, healthy nutrition, and behaviour change to reduce modifiable risks such as smoking and inactivity. In secondary and tertiary prevention, physiotherapists lead exercise-based cardiac rehabilitation after myocardial infarction, revascularisation, or in heart failure, integrating tailored exercise, education and psychosocial support to improve function, quality of life and survival[7,8]. Through health promotion, physiotherapist-led programmes combine exercise, lifestyle education and counselling to empower individuals with or at risk of CVDs to maintain long-term cardiovascular health[5].

EXERCISE AS THE CORE OF CARDIOVASCULAR PHYSIOTHERAPY

Exercise is the central therapeutic element of cardiovascular physiotherapy and rehabilitation[8]. When tailored and supervised by a physiotherapist, exercise is safe and effective across cardiovascular conditions. Exercise programmes combine aerobic, resistance, flexibility and balance training to improve cardiovascular fitness, muscular strength and functional independence.

Cardiac rehabilitation generally includes three phases: an inpatient phase focused on early mobilisation and education; an outpatient phase with supervised, individualised exercise performed at 50–70% of maximal functional capacity alongside lifestyle modification; and a maintenance phase promoting long-term, home-based exercise and risk factor monitoring. In the context of rehabilitation, exercise programmes are individually prescribed and progressively adapted based on diagnosis, functional capacity and psychosocial context, with the aim of maximising adherence and long-term outcomes[7].

ACKNOWLEDGEMENTS

Members of the Professional Practice Working Group of the Europe Region of World Physiotherapy for the 2024 - 2026 term:

Iva Lončarić-Kelečić (Croatia) (co-lead), Lia Charalambous (Cyprus), Stefan Hegenscheidt (Germany), Fran Theron (Ireland), Nirit Rotem-Lehrer (Israel), Loredana Gigli (Italy) (co-lead), Bogdan-Andrei Vereș (Romania), Marcel Sekereš (Slovakia), Helen Sharma (United Kingdom) and Esther-Mary D'Arcy (Chair).

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