

CORONARY HEART DISEASE AND EXERCISE

PUBLIC

WHAT IS CORONARY HEART DISEASE?

Coronary heart disease (CHD), also known as coronary artery disease, is a disorder of the coronary arteries around the heart in which the regional blood supply is insufficient to deliver the oxygen needed by the heart muscle. CHD is the leading cause of death in many developed countries, accounting for 12% of all deaths and almost 1 in 2 deaths from cardiovascular disease in Australia [1].

HOW DOES EXERCISE AFFECT CORONARY HEART DISEASE?

Exercise is a safe and effective treatment for patients with coronary heart disease. Regular moderate-intensity exercise has many benefits for people with CHD: it prevents the blood vessels from narrowing further, prevents blood clotting, helps deliver blood to the heart, and helps to maintain a normal heart rhythm. These changes reduce the load on the heart at rest and during exercise, which helps to lessen some of the symptoms, as well as decrease the risk of death from CHD [2]. Additional benefits from exercise in those with CHD include: improved physical function and psychological wellbeing, and favourable changes in blood pressure, HDL cholesterol and insulin sensitivity [3].

WHAT TYPES OF EXERCISE ARE RECOMMENDED?

Exercise prescription should take into account the individual's exercise capacity and risk profile, and aim to reach and maintain the individual's highest possible fitness level [4]. Exercise recommendations for CHD state 30-60 minutes per day, on 3-5 days per week, of moderate-intensity exercise (e.g. vigorous walking). The total may be completed in shorter sessions of 5-10 minutes and accumulated throughout the day [4]. Exercise should be at an intensity at which the participant feels they are breathing more heavily than normal but are still able to hold a conversation with someone.

Dynamic resistance (weight) training should be incorporated with aerobic exercise training to improve physical strength needed for activities of daily living. Resistance training should:

- Be performed 2-3 days per week using a weight not exceeding a weight that can be lifted for 12-15 repetitions using correct technique [5]; and
- Include a recovery pause of at least 1 minute between each set [4].
- After a cardiac event, people should complete at least two weeks of aerobic training before starting resistance training. People need to be taught the correct technique, and the importance of, regular breathing when performing resistance exercise.

Participation in a hospital based cardiac rehabilitation program should be offered to all patients on release from hospital and is strongly recommended as it should include an exercise component and education about appropriate home based exercises. Patients who want additional assistance to commence or maintain a safe exercise program should seek a referral to an Accredited Exercise Physiologist or Physiotherapist who will be able to assess and prescribe a safe and effective exercise program.



CONTRAINDICATIONS TO EXERCISE

- After coronary artery bypass graft surgery, people should avoid exercises that cause tension or pressure on the breastbone for two to three months.
- Isometric (static) training involving large muscle groups (e.g. the Plank) should be avoided, because it can increase the pressure on the heart muscle (myocardium).



RESOURCES & FURTHER INFORMATION

Exercise is Medicine Australia www.exerciseismedicine.org.au
Exercise Right www.exerciseright.com.au
Find an Accredited Exercise Physiologist www.essa.org.au
Find a Physiotherapist www.choose.physio

Prepared by Dr Andrew Williams

Find a Cardiac Rehabilitation Program
[www.heartfoundation.org.au/
cardiac-services-directory](http://www.heartfoundation.org.au/cardiac-services-directory)



REFERENCES

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