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Physical Activity after Open Heart Surgery: A Brief Overview

Dr. Mohammed Shosha*

[*]Sports scientist- Independent researcher- Honorary Professor of Sports Science

[*]Faculty member, Swiss School of Business and Management (SSBM), Geneva, Switzerland.

***Corresponding Author:** **Dr. Mohammed Shosha,** Sports scientist- Independent researcher- Honorary Professor of Sports Science Faculty member, Swiss School of Business and Management (SSBM), Geneva, Switzerland.*

Abstract

Preoperative exercise training has been shown to mitigate the risk of pulmonary complications following heart surgery. Numerous studies indicate that interventional therapies can decrease both the occurrence of postoperative complications and the duration of hospital stays for patients undergoing heart surgery.

This brief overview aims to provide a foundational understanding of the basic concepts of physical activity and exercise following open heart surgery.

Keywords: *Physical activity; heart surgery; Postoperative; Therapy; Strength.*

1. Introduction

Physical activity and exercise aim to enhance the muscles' ability to utilize oxygen effectively. This results in reduced strain on the heart, allowing it to operate with less effort and at a slower rate during moderate-intensity activities [4].

Following heart surgery, patients are often advised to engage in exercise-oriented cardiac rehabilitation programs. These programs typically include a mix of aerobic activities, strength training, and educational components focused on lifestyle changes, all of which are initiated after an evaluation of the individual's physical capabilities[1].

Engaging in physical activity following a heart surgery has been demonstrated to enhance recovery outcomes, lower the likelihood of complications, and positively impact patients' mental well-being. This activity can contribute to increased muscle strength, restore energy levels, and foster a sense of self-esteem among patients.

2. Exercise after A Heart Surgery

Following a heart surgery, the levels of physical activity can be markedly affected in the early postoperative phase as a result of the surgery itself, the effects of anaesthesia, and the medications administered. Elements such as postoperative fatigue, the patient's heart condition, and pain or discomfort at the surgical site may restrict the capacity to participate in physical activities [3].

During their hospital stay, physiotherapists will assist patients in becoming mobile and encourage them to walk. Prior to discharge, patients should be capable of walking around the ward and ascending one flight of stairs.

In the recovery phase within the hospital, patients are advised to progressively enhance their physical activity. This usually includes basic tasks like walking short distances and engaging in gentle range-of-motion exercises. After discharge, the recovery process continues at home, where patients are encouraged to gradually elevate their activity levels. During the early postoperative period, light activities such as walking and completing daily tasks are recommended. However, it is generally advised to avoid strenuous activities, heavy lifting, and rigorous exercise routines for a period of 6 to 8 weeks until the sternotomy incision has completely healed [2].

Fatigue is the most common complaint after any heart procedure. This fatigue can be attributed to the surgery itself, the effects of general anaesthesia, the medications administered, and the significant energy expenditure required for the body to heal. Patients are advised to allow themselves ample time for rest and to refrain from excessive activity.

3. What is The Recommended Timeframe for Patients to Begin Exercising Following Heart Surgery?

Certain forms of exercise, including walking, are allowed and even recommended immediately following hospital discharge. Enhancing walking routine serves as the initial step toward increasing overall physical activity, which in turn contributes to a faster recovery process. The extent of exercise in post-surgery is influenced by the patients pre-operative fitness level.

Using an indoor stationary bike can typically be resumed within a few weeks after surgery, while running may be feasible within a two-month timeframe.

4. What is the Normal Response to Physical Activity/Exercise?

Increased heart rate and intensity of pulse, Mild shortness of breath, Minor perspiration, Slight muscle soreness occurring roughly 36 hours post-exercise, Beginning to experience warmth and a flushed sensation.

5. When to Avoid Physical Activity And Exercise?

Refrain from engaging in sports and activities under the following conditions:

- During extreme temperature conditions
- For two hours following the consumption of a substantial meal
- When experiencing fatigue.

6. What Types of Exercises Should be Avoided Following open Heart Surgery?

Patients are advised to refrain from engaging in vigorous activities, including cycling, jogging, tennis, swimming, golfing, bowling, Weigh tlifting, or intense aerobic exercises, until they receive approval from their physician.

7. Conclusion

Engaging in regular physical activity and exercise following open-heart surgery is essential for maintaining cardiovascular health. Nevertheless, it is crucial to consult a physician prior to initiating any form of exercise after heart surgery or during a cardiac rehabilitation program.

8. Disclaimer

The information presented in this article is intended solely for general informational purposes and should not be considered a substitute for professional physiotherapy or medical advice.

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