

# Aerobic Exercise Training Improves Quality of Life in Patients with COPD

Beroj Steena.T<sup>1</sup>, Dr. (Prof). Nalini Jeyavantha Santha<sup>2</sup>

<sup>1</sup>M. Sc(N), Research Scholar, Department of Nursing, Himalayan University, Itanagar.

<sup>2</sup>M. Sc(N)., Ph.D, Research Supervisor, Department of Nursing, Himalayan University, Itanagar

## Abstract

Aerobic exercise is a physical activity that uses large muscle groups in our body. This type of exercise is usually rhythmic and repetitive. Aerobic exercise training can help decrease the Heart rate, Blood pressure and improves breathing for COPD patients (since the heart won't have to work as hard during Exercise). Walking, Jogging, Jumping rope and swimming are the great examples of aerobic exercise.

Method

**Keyword:** Aerobic exercise, rhythmic, repetitive

## Introduction

This type of Exercise is done half an hour daily and minimum of five times a week. Resistance training makes all of our body's muscle stronger including the one that help us to breathe. Here are some exercises that provides good option for people with COPD.

1. **Stretching:** Stretching exercise can help improve flexibility and range of motion. Swimming can help improve cardiovascular health.
2. **Resistant training:** Resistance training with hand weights or bands can help improve muscle strength.
3. **Walking:** Walking for at least 30 minutes a day for 5 days a week can reduce the risk of coronary artery disease and its risk may reduce even more when you increase the duration or distance you walk per day.

## Results of Aerobic exercises are

### a. It improves muscle strength:

Strong and healthy muscle improves and requires less oxygen to process. This reduces the stress off the lungs, which are responsible for introducing oxygen into the blood stream.

### b. It improves physical and mental health:

Exercise improves overall health, which reduces the number of healing resources and diverts body's needs to other parts of the body that could be used in your lungs instead.

### c. Strengthening of the heart:

Walking may also provide some benefits for people being with arthritis, such as reducing pain. Walking 5-6 weeks may help to prevent arthritis.

### d. Boost immune function system:

Walking may reduce the risk for developing cold and flu.

**e. Exercise also reduces anxiety, stress and depression:**

At first, the exercise must be slow and easy. Then the exercise time and effort must gradually increase. Then after routinely doing exercise, you may feel better and breathe better.

**Martijn Spruit, et al, (2016) done a study to evaluate the effect of COPD on exercise: Does it make a difference?.** The study concluded that Exercise training is the cornerstone of a comprehensive pulmonary rehabilitation program in patients with COPD. After careful screening, it is safe for COPD patients with co morbidities to obtain significant and clinically relevant improvements in functional exercise capacity and health status after an exercise-based pulmonary rehabilitation program..

**Conclusion:**

Exercise training as part of a comprehensive pulmonary rehabilitation program, can make a profound difference in the lives of patients with COPD. Indeed, exercise training reduces daily symptoms of dyspnea and fatigue, improves physical fitness, reduces symptoms of anxiety/depression and improves quality of life in patients with COPD.

**References:**

1. Bibliometric Analysis of Exercise and Chronic Obstructive Pulmonary Disease. Chen M, et al, (2023 June) Collection 2023. PMID: 37313499 **PMC article**. Review.
2. Healthcare experience of adults with COPD during the COVID-19 pandemic: a rapid review of international literature. Madawala S, et al, (2023 March) Open Respir Res. 2023 Mar;10(1):e001514. PMID: 36858459 **PMC article**. Review.
3. Effects of different modalities of inspiratory muscle training as an add-on to conventional treatment of patients with chronic obstructive pulmonary disease (COPD): study protocol for a randomized controlled trial. de Farias CAC, et al (2019) doi: 10.1186/s13063-019-3271-1. PMID: 31014365 **PMC article**.
4. Effect of targeted nutrient supplementation on physical activity and health-related quality of life in COPD: study protocol for the randomised controlled NUTRECOVER trial. Beijers RJ, et al (2022) Mar 16;12(3):e059252. doi: 10.1136/bmjopen-2021-059252. PMID: 35296491 **PMC article**.
5. Double-blind placebo-controlled randomized clinical trial to assess the efficacy of montelukast in mild to moderate respiratory symptoms of patients with long COVID: E-SPERANZA COVID Project study protocol. Mera-Cordero, et al (2022), Jan 6;23(1):19. doi: 10.1186/s13063-021-05951-1. PMID: 34991703 **PMC article**.
6. Protocol for a feasibility trial to inform the development of a breathlessness rehabilitation programme for chronic obstructive pulmonary disease and chronic heart failure (the COHERE trial). Jones AV, et al (2019) Open. 2019 Jul 16; PMID: 31315872 **PMC article**.
7. Web-based support for self-management strategies versus usual care for people with COPD in primary healthcare: a protocol for a randomised, 12-month, parallel-group pragmatic trial. Stenlund T, et al (2019), -030788. PMID: 31594889 **PMC article**.
8. Correlates of variability in endurance shuttle walk test time in patients with chronic obstructive pulmonary disease. Stoffels et al (2021) eCollection 2021. PMID: 33882094 **PMC article**.

9. Halpin D et al (2021),. Global initiative for the diagnosis, management, and prevention of chronic obstructive lung disease. The 2020 GOLD science committee report on COVID- 19 and chronic obstructive pulmonary disease. Article Pub Med Google Scholar
10. Yang IA, et al (2017) 1. COPD-X Australian and New Zealand guidelines for the diagnosis and management of chronic obstructive pulmonary disease Article Pub Med Google Scholar