
: Pulmonary rehabilitation; Asthma; Respiratory function;
Physical fitness; Non-pharmacological interventions

Asthma is a chronic respiratory condition characterized by airway
inflammation and hyperresponsiveness, leading to recurrent episodes of wheezing, breathlessness, chest tightness, and coughing, particularly at night and in the morning. The condition is often associated with airway remodeling and chronic inflammation.

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PR programs focus on improving respiratory mechanics through breathing exercises, which enhance the efficiency of the respiratory muscles and reduce the work of breathing. Techniques such as diaphragmatic breathing and pursed-lip breathing help asthma patients achieve better control over their breathing patterns, reducing the frequency and severity of asthma exacerbations. Regular exercise training also contributes to improved lung function, as it enhances overall cardiovascular and respiratory endurance, leading to reduced airway resistance and improved oxygenation.

Asthma patients often experience reduced physical activity levels due to fear of triggering symptoms and exercise-induced bronchoconstriction. PR programs provide a structured and supervised environment where patients can safely engage in physical activity. Aerobic exercises, strength training, and flexibility exercises are tailored to individual fitness levels, gradually increasing patients' physical capacity and confidence [5]. Enhanced physical fitness not only improves general health but also reduces asthma symptoms and improves the ability to perform daily activities.

Education is a cornerstone of PR programs, empowering asthma patients with knowledge about their condition, proper inhaler techniques, and self-management strategies. Patients learn to recognize early signs of exacerbations, implement action plans, and make lifestyle modifications to reduce exposure to asthma triggers. Increased awareness and understanding of asthma lead to better adherence to treatment plans and proactive management of the condition.

Asthma can significantly impact mental health, leading to anxiety, depression, and reduced quality of life. PR programs incorporate psychosocial support and counseling to address these aspects. Group sessions and peer support provide a platform for patients to share

experiences and coping strategies, reducing feelings of isolation. Improved mental health contributes to better overall asthma control and enhances patients' quality of life [6].

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Pulmonary rehabilitation offers substantial benefits for asthma patients beyond the effects of medication alone. By improving respiratory function, enhancing physical fitness, providing education, and offering psychosocial support, PR programs deliver a comprehensive approach to asthma management. Integrating PR into standard asthma care can lead to better disease control, reduced symptoms, and improved quality of life for asthma patients. Continued research and awareness of the benefits of PR are essential for optimizing asthma management and promoting a holistic approach to respiratory health.

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None

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None

References

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