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# Endurance Sport–Inspired Therapies to Improve Respiratory Capacity: An Innovative Approach to Rehabilitation

**Topic:** Miscellaneous

Marouane Daimi, Mehdi Mechtoune, Meryem Ammari, Tariq Hammani, Abderrahmane Jemmouj, Saloua Khalfaoui

*Service de Médecine Physique et Réadaptation Fonctionnelle, Hôpital Militaire Mohamed V de Rabat, Rabat, Morocco*

## BACKGROUND

Training inspired by endurance sports is an emerging approach in pulmonary rehabilitation. Its effectiveness relies on improving pulmonary function and aerobic capacity, particularly in patients with chronic respiratory diseases or following an acute condition affecting the respiratory system. This study aims to assess the impact of these strategies on respiratory capacity and quality of life in patients undergoing rehabilitation.

## METHODS

A literature review was conducted by searching PubMed, ScienceDirect and ClinicalKey using the keywords "endurance training", "respiratory rehabilitation", "pulmonary function" and "exercise therapy". The selected articles included clinical trials and observational studies published between 2010 and 2024. Outcome measures included forced expiratory volume in one second ($FEV_1$), forced vital capacity (FVC), maximal oxygen uptake ($VO_2max$) and dyspnea scores (modified Medical Research Council [mMRC] and Borg scales).

## RESULTS

The studies analyzed show significant improvements in pulmonary function and exercise tolerance in patients who underwent training inspired by endurance sports. Increased $VO_2max$ was reported, along with reduced dyspnea scores. These benefits were particularly marked in patients with chronic obstructive pulmonary disease (COPD) and following COVID-19, suggesting the clinical relevance of this approach in pulmonary rehabilitation.

## CONCLUSION

Incorporating principles from endurance sports into pulmonary rehabilitation appears to be a promising strategy for improving patients' respiratory capacity and quality of life. Further studies are needed to define optimal protocols and better understand the underlying physiological mechanisms.

**Statement of Disclosures**

None

**Corresponding Author:**
Marouane Daimi
Service de Médecine Physique et Réadaptation Fonctionnelle, Hôpital Militaire Mohamed V de Rabat, Rabat, Morocco
**Email:** daimimarouane@gmail.com

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