# THE ROLE OF NUTRITION AND DIETARY SUPPLEMENTS IN THE PREVENTION AND TREATMENT OF MAI NUTITION IN PATIENTIS WITH COPD

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## **Background**

Malnutrition is a significant comorbidity in chronic obstructive pulmonary disease (COPD), contributing to disease progression and reduced quality of life. This paper examines the role of medical nutrition therapy in the prevention and treatment of malnutrition in patients with COPD, emphasizing an evidence-based approach and its clinical implifications. Patients with COPD face increased metabolic demands, systemic inflammation, and reduced food intake, resulting in sarcopenia, osteopenia and cachexia. Recent studies have highlighted the efficacy of targeted nutritional strategies, including supplementation with essential amino acids, omega-3 fatty acids, vitamin D and antioxidants to improve respiratory function, muscle strength ang quality of life in patiens. Comprehensive nutritional assessments and personalized interventions are increasingly recognized as critical components of the care of patients with chronic obstructive pulmonary disease. Medical nutrition therapy plays a key role in the treatment of malnutrition and improving clinical outcomes in COPD.

# **Case report**

The aim of the research is to determine the effect of pulmonary rehabilitation and individual medical nutritional therapy on muscle mass measured by the bioimpedance method before and after the implementation of physio-rehabilitation treatment.

### Conclusion

Individually prescribed medical nutritional therapy, adequate and adapted physical activity with the participation of balneofactors, led to changes in body composition with the desired outcome of increasing muscle mass in patients with COPD.

Keywords: nutritional therapy, pulmonary rehabilitation, sarcopenia