

## 2.11 Can Pulmonary Rehabilitation (PR) Resolve Sarcopenia in patients with Chronic Lung Disease?

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**Background:** Sarcopenia is a disorder involving the loss of skeletal muscle mass and function that commonly occurs with advancing age along with with a number of chronic health conditions. There is higher prevalence of sarcopenia in COPD patients. Resistance exercise and protein supplementation are the treatment for sarcopenia. The aim of this study is to demonstrate whether an 8 week PR programme resolves sarcopenia in patients with chronic lung disease.

**Methods:** 22 patients participated in an 8 week PR programme (Table 1). As part of the PR pre- and post-assessments hand grip strength was measured using a hand grip dynamometer to assess for sarcopenia. 6 patients were diagnosed with sarcopenia (Table 2).

### Results:

By the end of the programme 5 out of 6 patients had resolution of their sarcopenia.

**Conclusions:** This study highlights that 86% of the patients had resolution of their sarcopenia following an 8 week programme. All COPD patients had full resolution of their sarcopenia. Hand grip strength slightly improved for the patient with ACOS but PR didn’t resolve their sarcopenia. No patients with asthma presented with sarcopenia prior to commencing PR.

Diagnosis	Age range	Gender	
		Male	Female
COPD	60-83	5	11
Asthma	52-65	0	3
ACOS	47-72	2	1

**Table 1. Age range and gender of patients.**

Gender	Diagnosis	Pre-Assessment (lbs) Men < 59.5 Lb Women < 35Lb	Post-Assessment (lbs) Men < 59.5 Lb Women < 35Lb

Female	COPD	24	45
Female	COPD	30	35
Female	COPD	21	45
Female	COPD	28	60
Male	COPD	58	60
Male	ACOS	35	38

**Table 2. Pre- and post-assessment handgrip strength measurements of the sarcopenic patients.**

**Keywords:** Chronic Lung Disease, Sarcopenia, Pulmonary Rehabilitation

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