

# Patients with chronic airflow limitation: effects of the inspiratory muscle training with threshold load valve, built with appropriate technology, associated to nutritional support

## Pacientes con limitación crónica al flujo aéreo: efectos del entrenamiento

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**AIM:** To assess prospectively the effects of a controlled program of inspiratory muscle training program and nutritional support in patients with chronic obstructive lung disease (COPD).

**PATIENTS AND METHODS:** Twenty-three patients with COPD were randomly assigned into four groups. Group I received a 1000 kcal/day nutritional supplement, given as a casein based enteral nutritional formula; group III was subjected to inspiratory muscle training, using an inexpensive pressure threshold load valve constructed according to the Appropriate Technology principles of the WHO, adjusted at 30% of Maximal Inspiratory Mouth Pressure and received also the nutritional supplement; group IV was trained but did not receive the nutritional supplement and group II was not trained nor supplemented. Patients were studied during three months and monthly, inspiratory muscle function, exercise capacity and anthropometry were measured. **RESULTS:** A significant improvement in exercise capacity, maximal inspiratory