Huntington Expertisecentrum
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Expiratory Muscle Strength Training in Huntington's Disease: A Pilot Study with the EMST-150

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Background

Huntington's disease is associated with respiratory muscle weakness, dysphagia, and aspiration risk. Expiratory Muscle Strength Training (EMST) may improve expiratory and swallowing function.

Aim

To evaluate the feasibility and applicability of EMST-150 training in people with early- to mid-stage Huntington's disease.



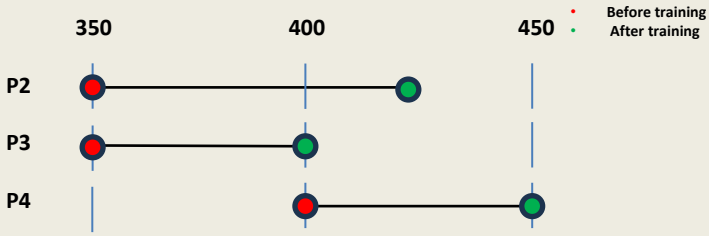
Methods

- 4 participants
- 3-month training program, 5x/week
- EMST-150
- Outcome measures:
  - Peak Expiratory Flow
  - Dysphagia Handicap Index
  - Expiratory muscle strength

Reduced respiratory function
↓
Dysphagia

➡️ EMST-150 Training ➡️

Increased expiratory strength
↓
✅ Lower DHI scores ✅ Greater confidence



Results

- 3/4 participants completed training
- PEF improved by 50 to 70 L/min
- DHI improved in all completers
- Increased EMST resistance achieved
- Participants reported:
  - Easier swallowing
  - Reduced effort during training
  - Greater confidence

Conclusions

All participants who completed the intervention showed:

- improved peak expiratory flow (+50-70 L/min).
- improved expiratory strength and reduced swallowing burden.

EMST-150 appears feasible and potentially beneficial for individuals with early- to mid-stage Huntington's disease. Larger controlled studies are needed.

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