Vestibular training intervention for individuals with post-concussion syndrome

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Purpose

- Investigate which balance assessment analysis best reflects changes to balance control in individuals experiencing persistent post-concussion symptoms (PCS) following a vestibular training intervention

Methods

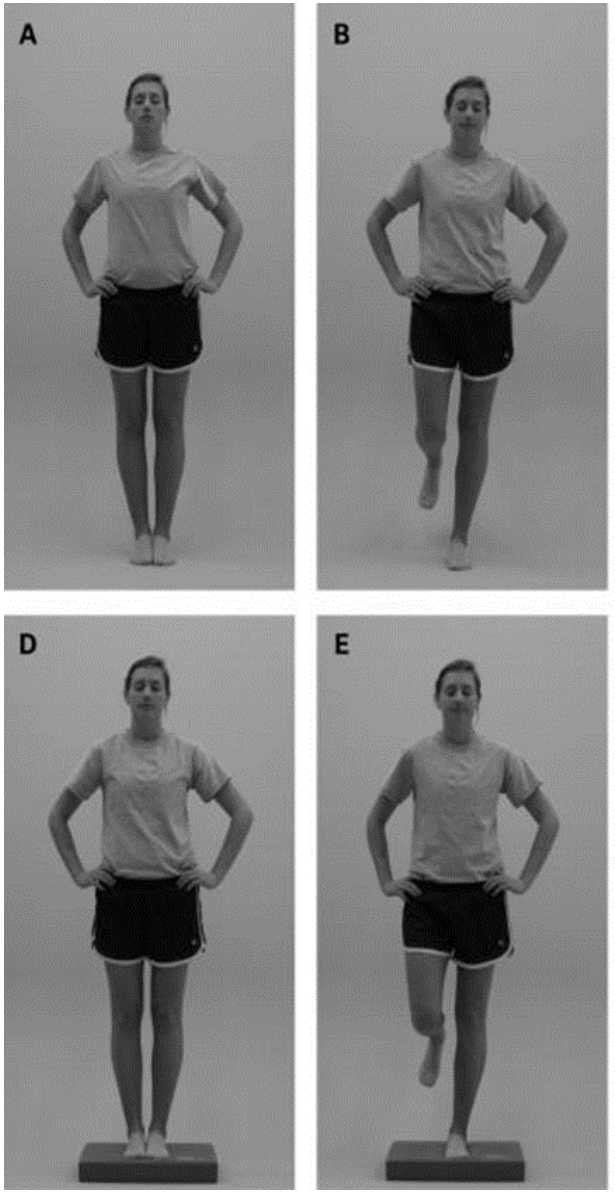
- Participants:
  - 6 individuals, 1 male
  - Minimum 26 days symptomatic
  - Balance deficits due to PCS

- Protocol:
  - SCAT3 and adherence questionnaire
  - Balance testing utilizing Nintendo Wii Board

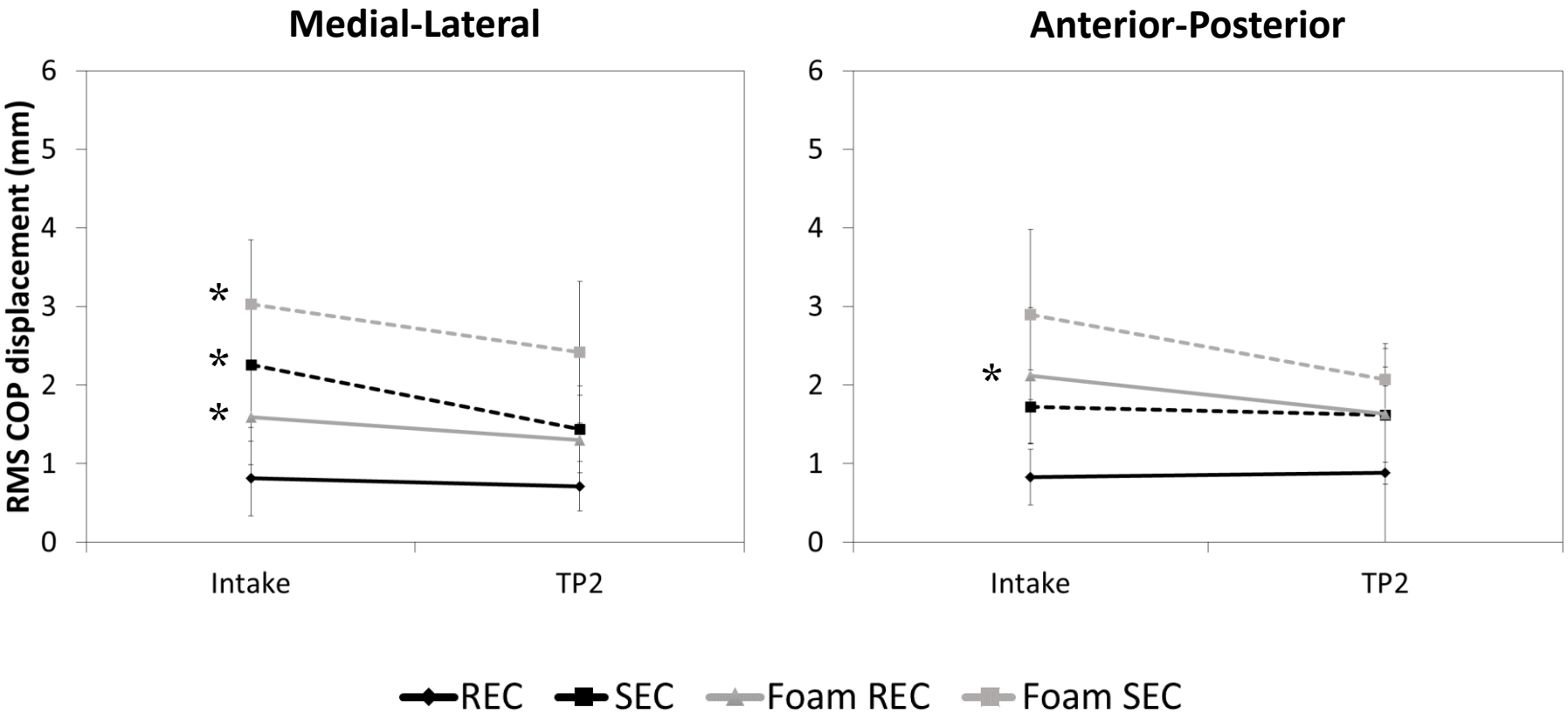
Conditions

1. Romberg stance eyes open (REO)
2. Romberg stance eyes closed (REC)
3. Single leg eyes open (SEO)
4. Single leg eyes closed (SEC)

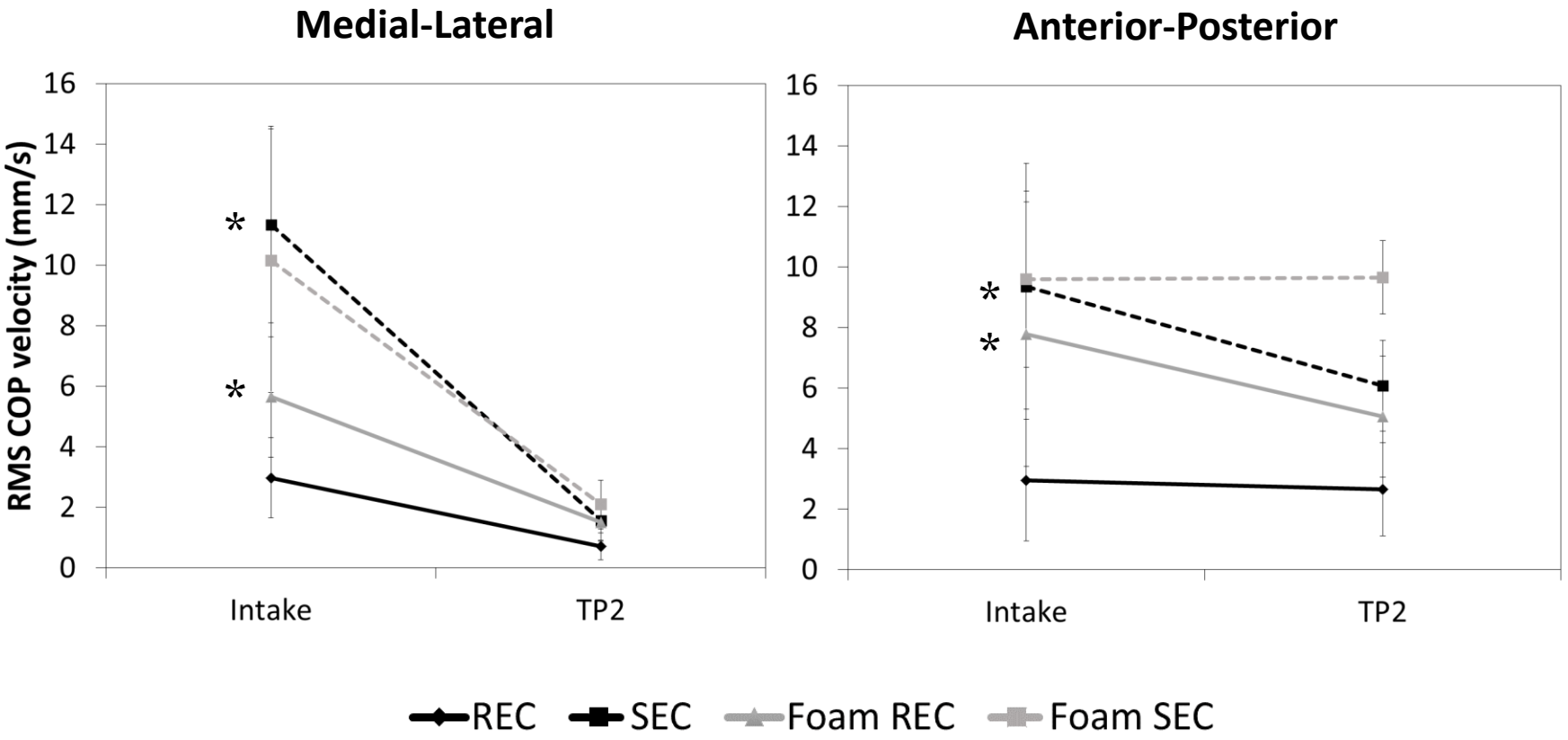
- Each condition repeated upon a compliant surface



Significant improvements in dCOP when eyes closed



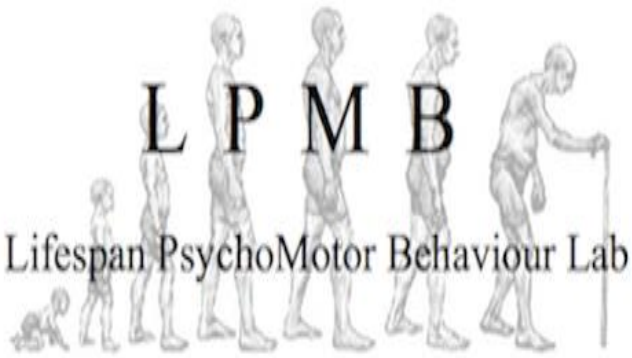
Significant improvements in vCOP when eyes closed



Implications

- Vestibular rehabilitation as a promising treatment option for individuals with PCS
- Objective clinical measures using affordable technology should be considered as vCOP are able to detect balance deficits unrecognizable to the naked eye

Thank you



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