

The Connections between Musculoskeletal Injury and Global Reaction

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Introduction

- ▶ Past studies have demonstrated that damage to the ACL can cause delayed reaction times in the lower extremities
- ▶ We are testing for a global deficit. A delayed reaction time throughout the entire body
- ▶ All tests were performed with both hands

Purpose

The aim of the study was to discover if a global deficit is present in ACLR patients

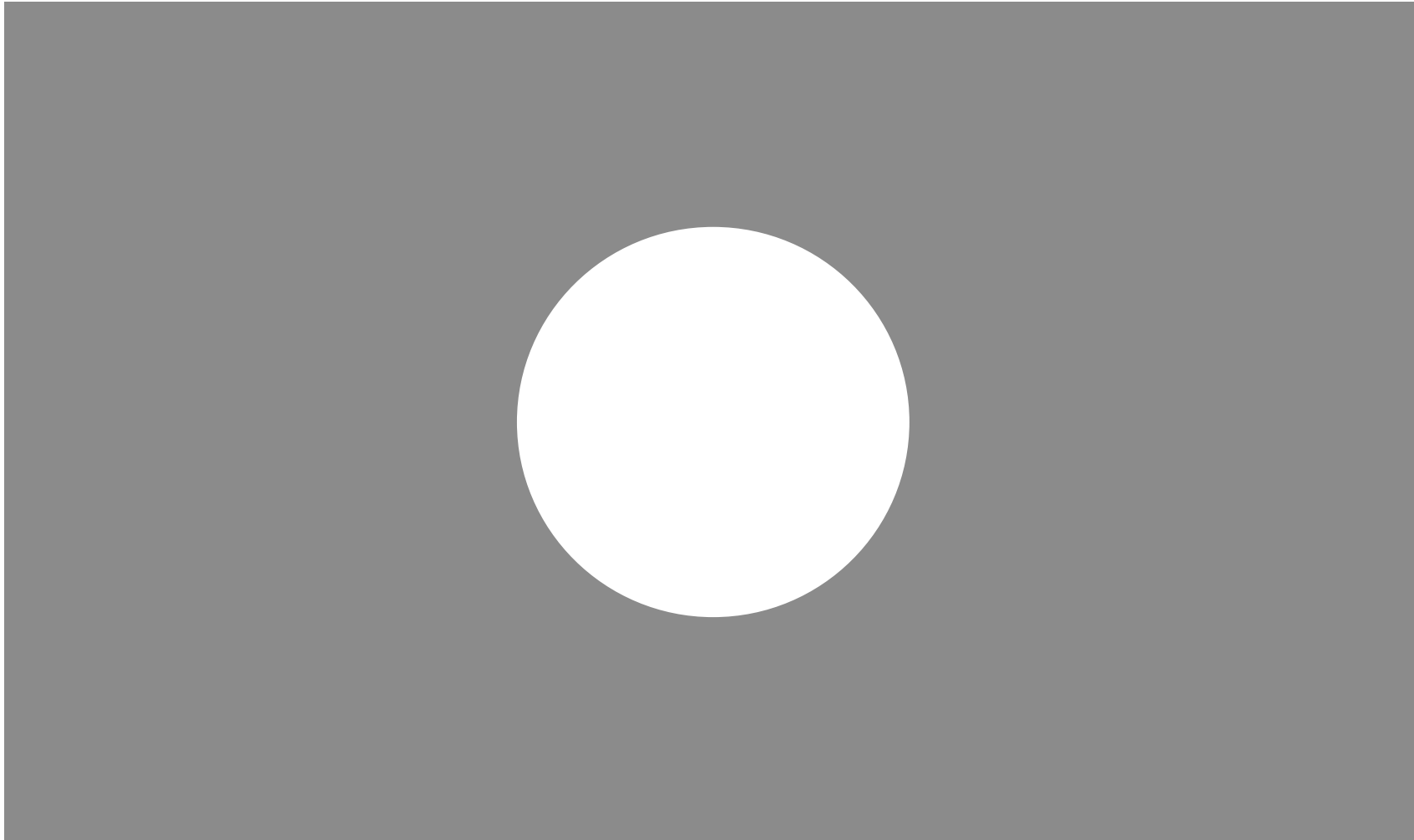
Demographics

Participants ranged in age from 18 to 40

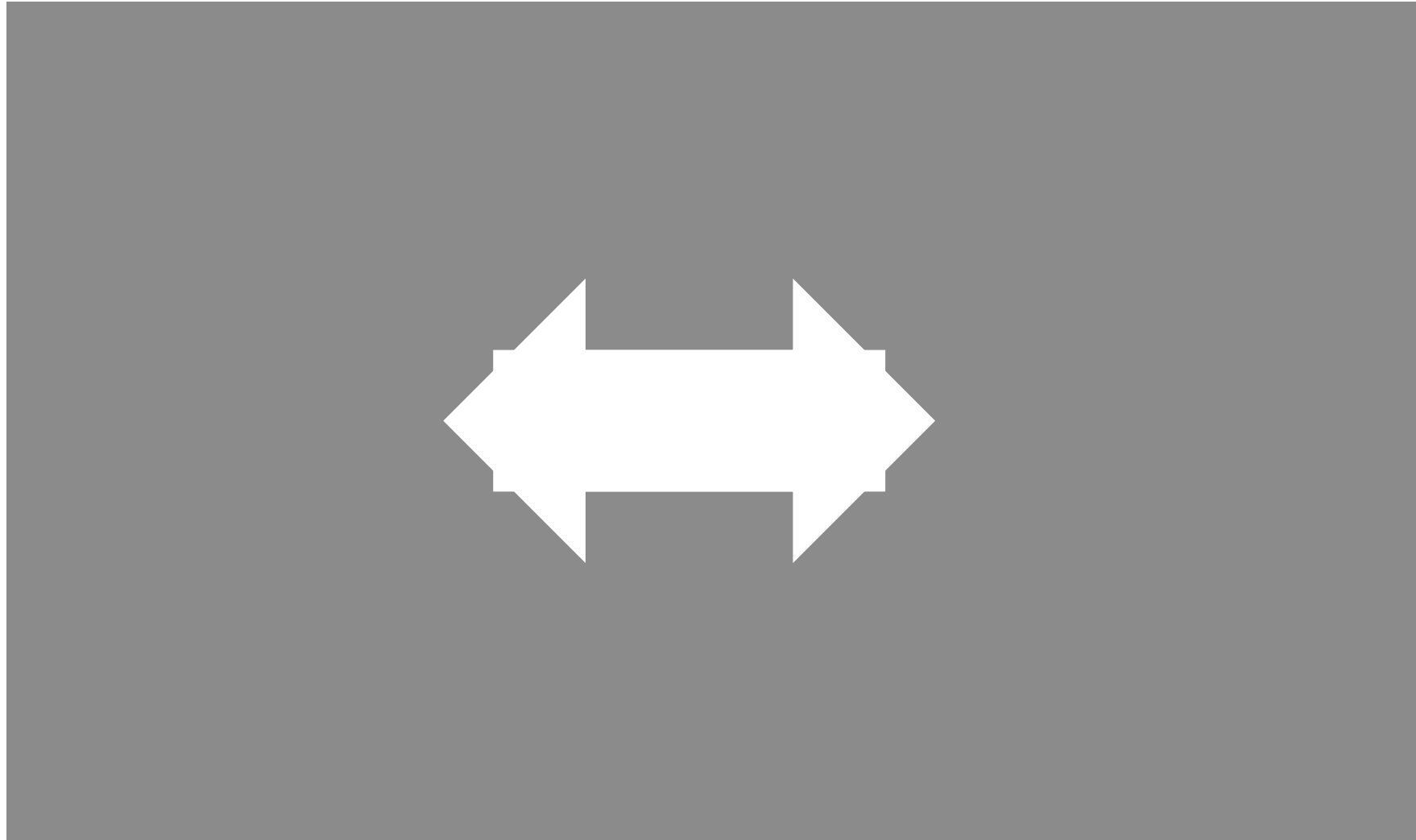
All participants were physically fit

14 control participants and 10 ACLR participants

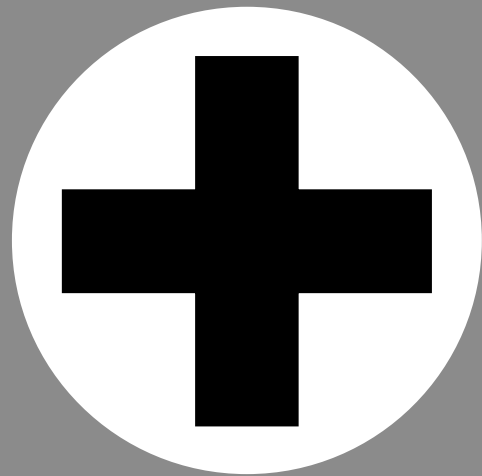
Simple Reaction Time Test



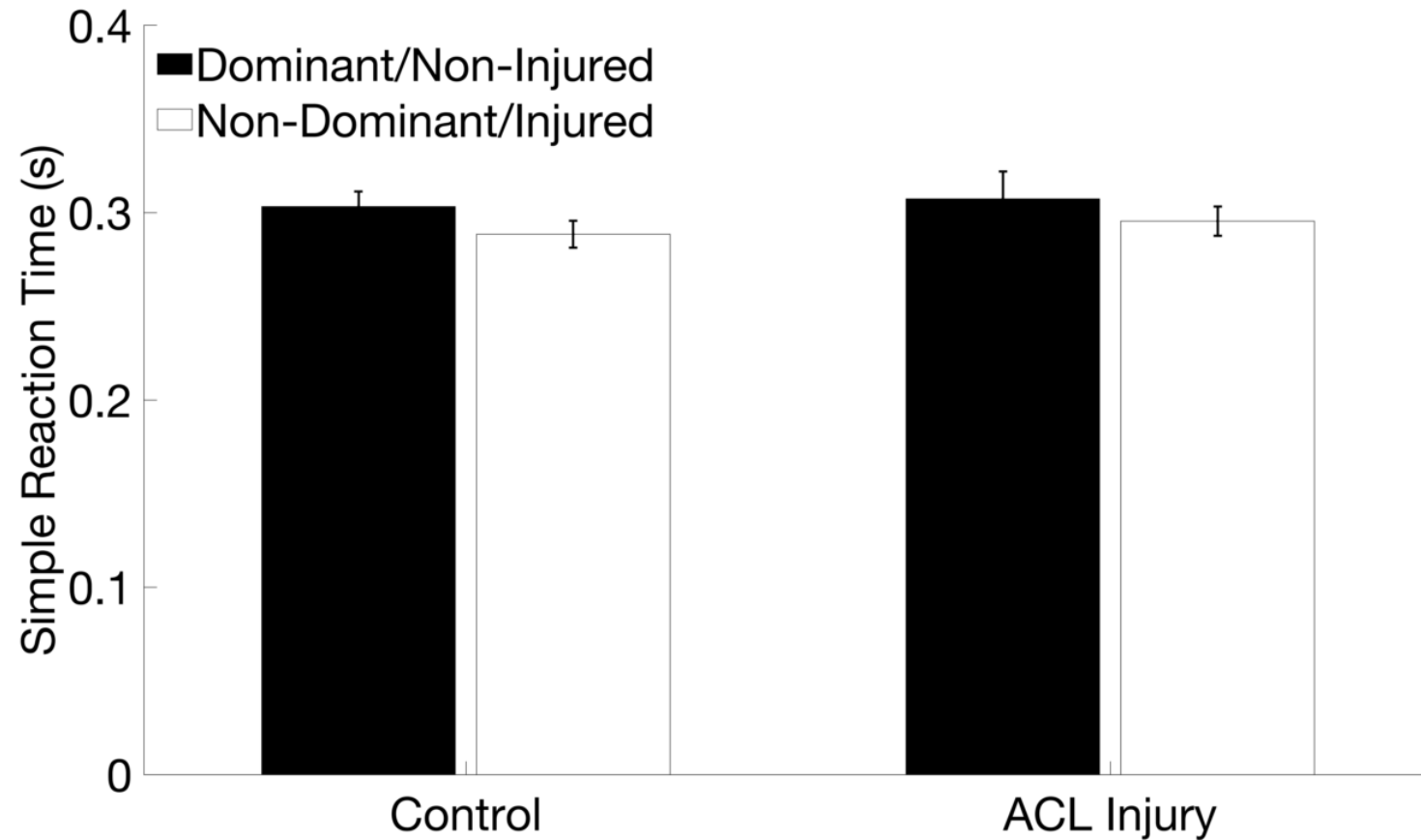
Choice Reaction Time Test



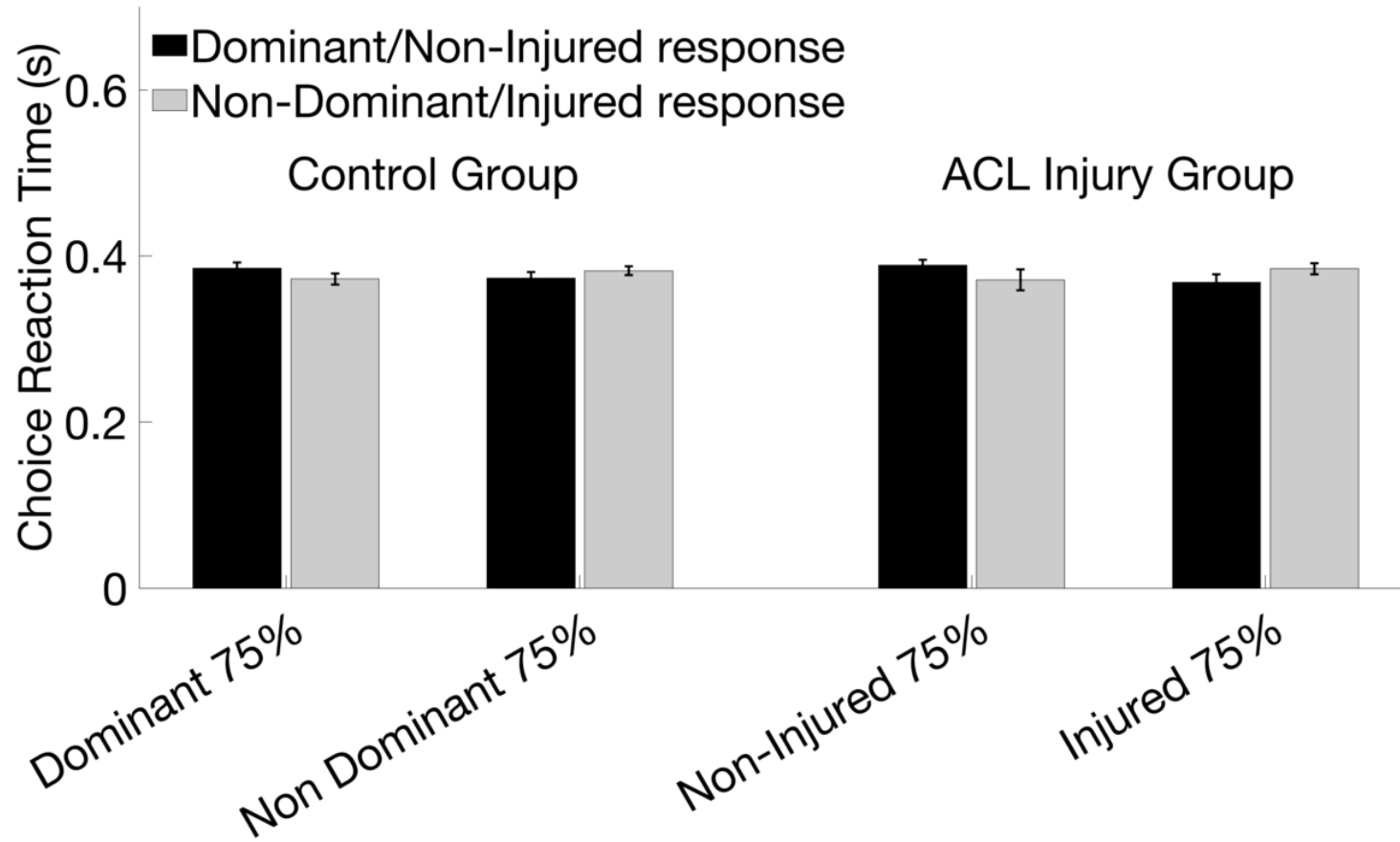
Response Inhibition Test



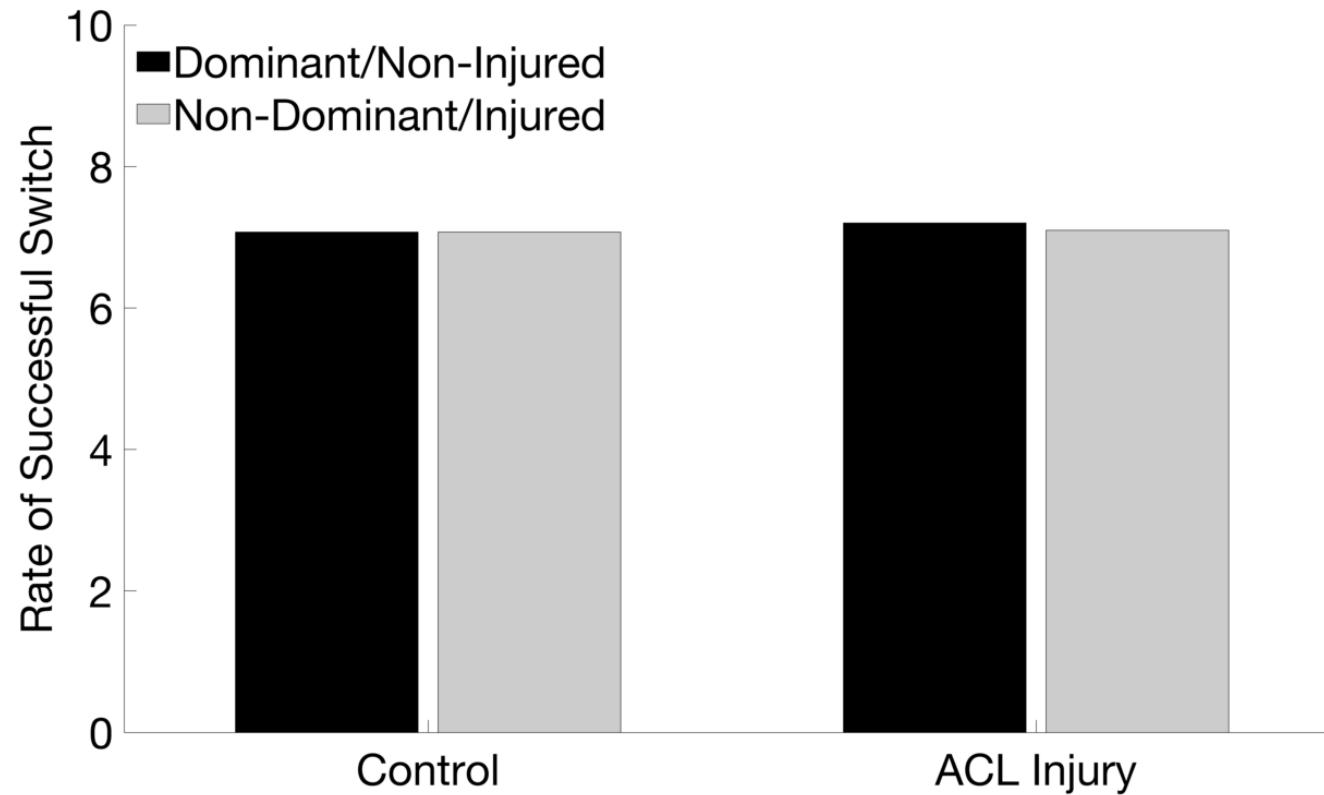
Results: Simple Reaction Time



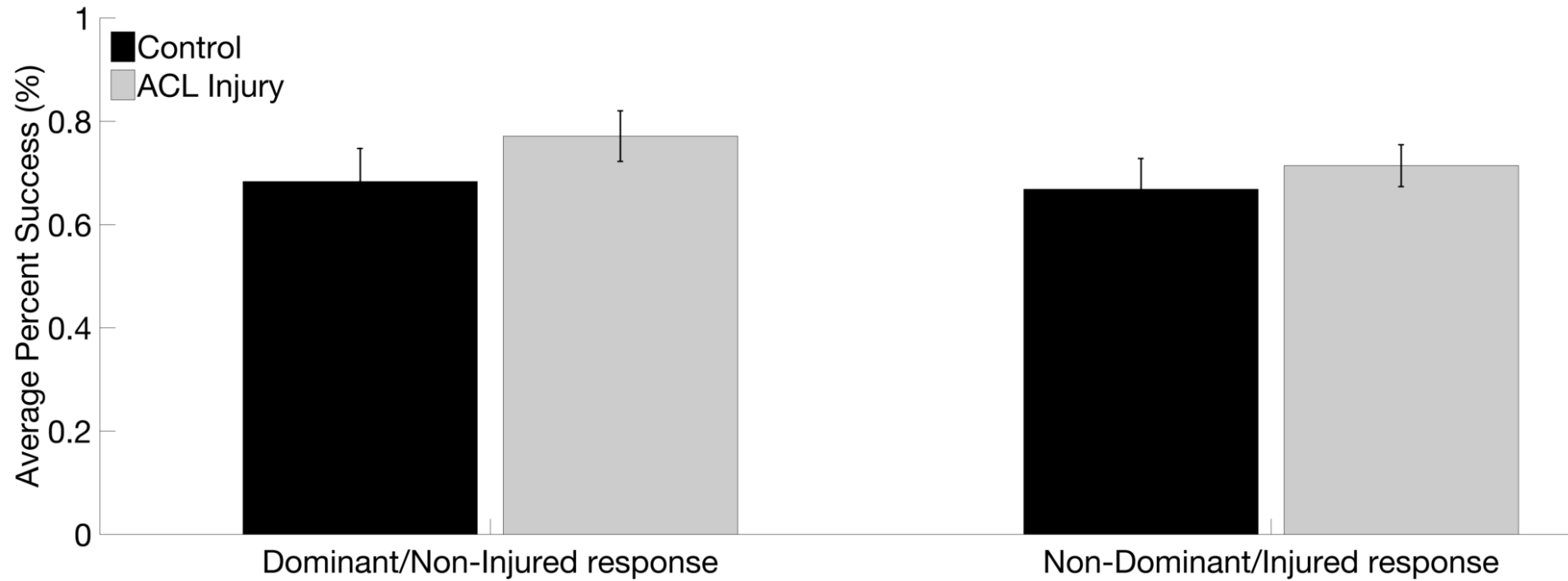
Results: Choice Reaction Time



Results: Choice Reaction Time cont.



Results: Response Inhibition



Conclusions and Impact

- ▶ Preliminary evidence that there is not a global deficit
- ▶ Support for Dr. Beethe's research

Contact Information



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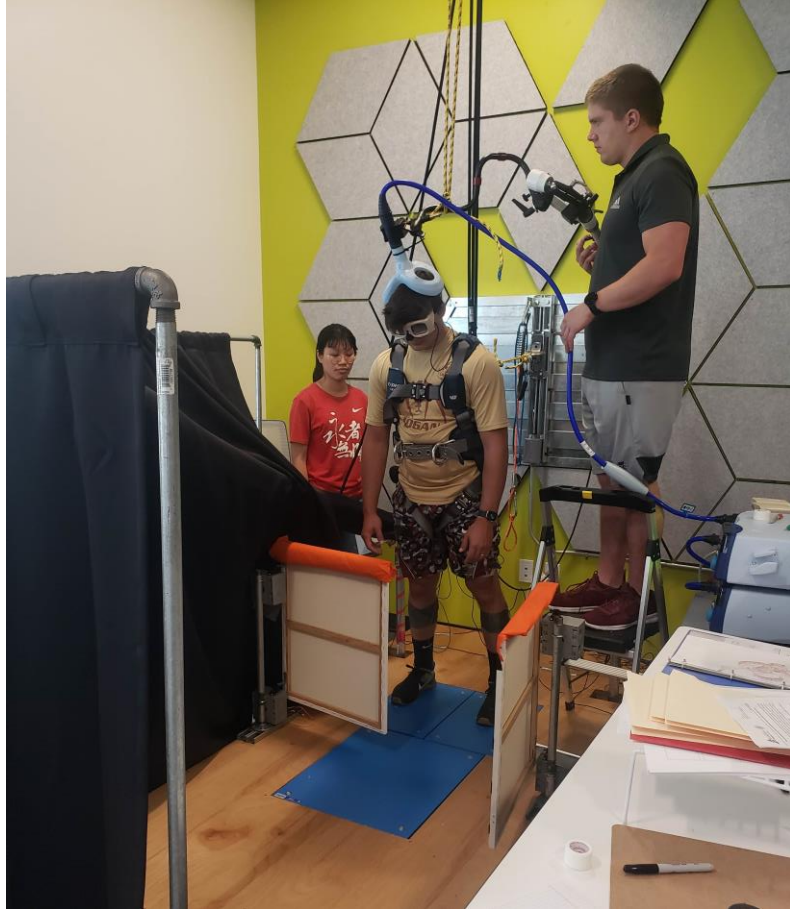
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ACL Drop Test