

Evidence to Support Efficacy of a High Intensity Return To Sport Program After Lower Extremity Injury

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Introduction

- 8.6 million sports and recreation related injury episodes per year¹
- Inadequate rehabilitation and premature return to play identified as risk factors for multiple lower extremity injuries².

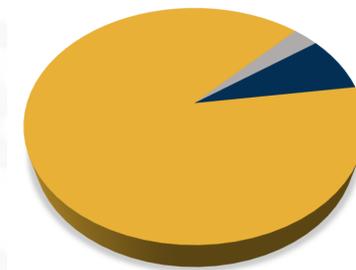
Objective

- Assess the effectiveness of a return to sport program established for patients with lower extremity injuries.

Methods

- Outcome Measures
 - IKDC
 - TSK-11
- Performance based tests for pre & post assessment
 - Single leg timed hop
 - Triple crossover hop

Chart 1: Involved Region



■ Hip - 8%
■ Knee - 93%
■ Ankle - 3%

Table 1: Demographics

Total # Participants	104
# Male Participants	41
# Female Participants	63
Average Age	18.83 years

Results

- Statistically significant changes from pre- to post- ASCEND in:
 - 6 meter single-leg timed hop
 - Triple crossover hop
 - IKDC
 - TSK-11

Table 2: Results

	P value	Difference
6 meter single leg timed hop	<0.178	Mean 1.58%
Triple crossover hop	<0.002	Median 2.92%
IKDC	<0.001	Median 9.19
TSK-11	<0.001	Median -2

Clinical Relevance

- A high intensity return to sport program can elicit change through agility, plyometrics, strength, core, and endurance training

Conclusion

- The ASCEND return to sport program elicits statistically significant change in single leg timed hop, triple crossover hop, IKDC, and TSK-11.

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References

- Sheu Y, Chen L-H, Hedegaard H. Sports- and Recreation-related Injury Episodes in the United States, 2011–2014 . National Health Statistics Reports. 2016;99:1-10.
- Paterno MV, Rauh MJ, Schmitt LC, Ford KR, Hewett TE. Incidence of Second ACL Injuries 2 Years After Primary ACL Reconstruction and Return to Sport. 2014.