Subjects
Forty subjects (mean age 16.2±3.4 yrs) from a large, prospective longitudinal study on ACLR outcomes were included in this analysis. (Table 1) All participants had recently completed rehabilitation and were cleared to return to pivoting/ cutting sport.

Purpose/Hypothesis
The rate of second anterior cruciate ligament (ACL) injury after ACL reconstruction (ACLR) has been reported to be as high as 30% in young, active individuals. Previous studies have reported an association between fear of movement/reinjury (fear) and subjective measures of function but no relationship has been reported between fear and second injury rates. The purpose of this study was to determine if self-reported fear at the time of return to sport (RTS) after ACLR would predict who would sustain a second ACL injury in the first 12 months after RTS. The tested hypothesis was patient self-report of fear after ACLR would predict relative increased risk for a 2nd ACL injury.

Results
Nine (22.5%) subjects suffered a 2nd ACL injury within 12 months of RTS after ACLR leaving 31 subjects in the reference group. (Table 2) Patients who went onto suffer a 2nd ACL injury had significantly greater TSK score at the time of RTS (20.0±3.3) than those who did not suffer a 2nd injury (16.2±3.6)(p=0.008). Patients with a TSK-11 score of 19 or greater at the time of RTS were 18 times (RR=18.2; 95% CI: 2.9-118.6) more likely to suffer a 2nd ACL tear within the first12 months after RTS. This variable predicted 2nd ACL injury (AUC=0.815) in this population with high sensitivity (0.79) and specificity (0.84).

Clinical Relevance
In a population of young athletes, patients who report higher levels of fear at time of RTS may present with greater risk of future ACL injury.

Results (cont.)

<table>
<thead>
<tr>
<th>Table 2</th>
<th>2nd ACL Injury (n=9)</th>
<th>No 2nd ACL Injury (n=31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High TSK-11 (≥17) (n=12)</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Low TSK-11 (≤16) (n=28)</td>
<td>2</td>
<td>26</td>
</tr>
</tbody>
</table>

Clinical Relevance (cont.)
Patient fear of movement/re-injury may be an important measure to assess prior to discharge to return to pivoting and cutting sports after ACLR. Future research must investigate the relationship of patient reported fear to previously reported predictors of second injury and be validated in a larger population.

Conclusion
In accordance with our hypothesis, patients with higher self-reported fear on the TSK-11 demonstrated an increased risk of suffering a 2nd ACL injury in the 12 months following RTS.

References

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Key Words
Anterior cruciate ligament reconstruction; Second ACL injury; Fear of re-injury; Fear of movement.