



RESEARCH TO
PRACTICE 2018

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ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: HOW CAN WE LOWER RE-INJURY RISK UPON RETURN TO SPORT

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Anterior cruciate ligament (ACL) tears are common, and it is estimated that more than 10,000 Australians undergo ACL surgical reconstruction (ACLR) every year, at a conservative cost of more than A\$75 million per annum in hospital costs alone. ACLR however is not a guaranteed success especially in younger patients (under 20 years), with 18% re-injuring their graft within the first two years (Webster & Feller et al., 2016), whereas re-injury rates in adults being approximately 3% at 5-year follow-up (Samuelsen et al., 2017). Furthermore, ACLR does not guarantee a return to pre-injury level of sport, with only 40-65% of non-elite adults returning to pre-injury level sport (Ardern et al., 2015 & Filbay et al., 2017), compared to 83% of elite athletes able to return to pre-injury sport (Lai et al., 2017).

For those wishing to return back to pre-injury sport following ACLR, the need to lower the risk of ACL re-injury is an important short-term and long-term outcome that the patient and their medical team must undertake. Until recent times, an orthopaedic assessment and time since surgery (minimum 6 months post-op) were the two most common determining factors (Barber-Westin & Noyes, 2011). This approach however has been challenged recently resulting in a significant reduction in ACL re-injury rates, by asking the athlete to also pass discharge criteria - consisting of a series of strength and hop tests - prior to being cleared to return to sport (RTS) (Grindem et al., 2016).

This presentation will not only cover this research by Grindem et al (2016) and how functional tests like the hop tests must be used to determine readiness to RTS following ACLR, but it will also cover:

- How to perform functional tests in a valid and reliable manner
- Why functional tests can and should be used pre-operatively
- How functional tests can also be used to predict function and quality of life (not just RTS)
- Hop test normative values
- Limitations to functional tests

Abstract number: 033
Session: Returning to Sport After Anterior Cruciate Ligament Reconstruction: the when, if and how?
Date: Wednesday, 28 March 2018
Time: 3:30pm – 5:00pm
Co-Presenters: Dr Peter D'Alessandro; A/Prof Kate Webster; Mr Mick Hughes
Panel Practitioner: Mr Tim Oostenbroek
Session Chairperson: Dr Jay Ebert