

26% REDUCTION IN RUNNING ASYMMETRY IDENTIFIED WITH ViMove™ WEARABLE SENSOR TECHNOLOGY

The Problem

An 18 year old athlete who has played futsal for Australia and representative-level soccer was referred to a clinical pilates physiotherapist after re-rupturing his right ACL. This occurred after a previous ACL injury which resulted in a hamstring allograft and thorough rehabilitation programme. To objectively assess the stability of the athlete's knees and the change in performance after a patient-specific exercise programme, ViMove was used.

ViMove Knee Live Assessment

Using ViMove's Knee Module, both the stability and consistency of movement in the athlete's knee were confirmed. The results of this assessment allowed the physiotherapist to gain insights into the speed at which the athlete dropped into varus and valgus. This led the physiotherapists to adjust the athlete's rehabilitation programme to include more box drop exercises.

ViMove Running Live Assessment

Acceleration / Deceleration testing using ViMove identified changes in symmetry when the athlete ran at controlled speeds compared to sprint-level speeds over 30 meters. When sprinting the athlete reached high levels of asymmetry, and during runs at controlled speeds the athlete achieved greater symmetry.

Prescribed Rehabilitation Programme

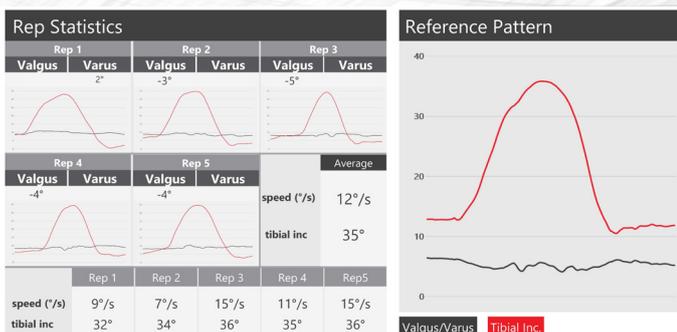
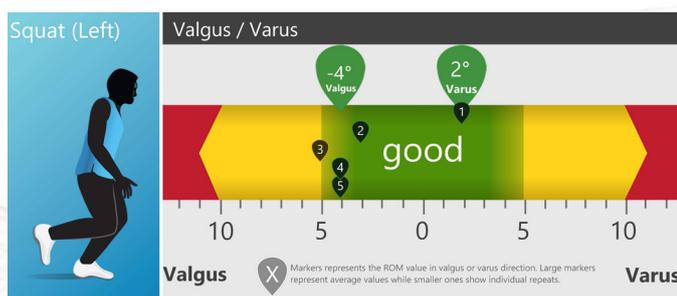
Following these initial baseline assessments, the athlete commenced a rehabilitation programme specific to the movement deficits that had been identified by the ViMove assessments. The aim of this programme was to improve proprioception through better movement control.

Results

At the conclusion of this programme, the athlete was retested with ViMove. From the modified rehabilitation programme:

- A 26% reduction in asymmetry during ViMove's Acceleration / Deceleration Running test was identified.
- Significant improvements in knee stability were reported.
- The athlete was able to return to playing futsal without requiring surgery.

4 months later, the athlete competed in 2 futsal games over 4 days. 2 months after that, the athlete played 9 futsal games over 5 days without injury or pain.



POST REHABILITATION SQUAT DATA





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