

**The use of Kinesthetic taping to increase strength output in the lower limbs and enhance reaction times in soccer players**

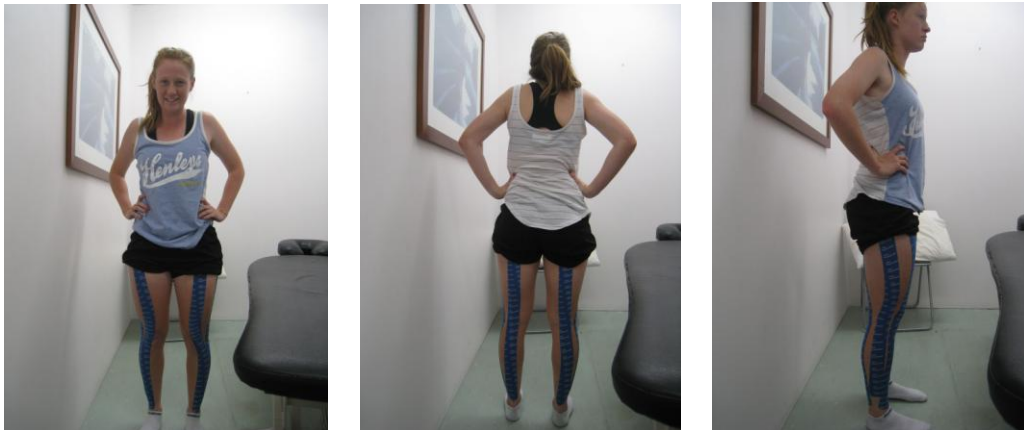
This study was completed by Perth integrated Health with the support of RockTape Australia and with the cooperation and participation of Football West. Special mention to Tony Stahl of RockTape Australia and Jamie Harnwell, coach and development manager at Football West.

The purpose of this study was to prove that kinetic taping along synergistic muscles will enhance force produced and endurance in the lower limbs of soccer players. This will result in enhanced performance during the game with reaction times, speed and strength, as well as reduce the risk of injuries. Participants of the study were girls from the Western Australia State team.

Participants came for a general orientation and training session where they were taught what was expected during the course of the study and given a trail run. During this session, participants will be measured for their best time over 30 meters after a standardized warm up.



During the 2 data collection sessions, participants were tested in vertical jump height 10 times after a standardized warm up and asked to do 30 meter runs (at 90%, 50% and 30% capacity) for 5 mins between jumps. Total testing time for each session was approximately 45 mins (a standard half of soccer). The first session was conducted without tape and the second session (2 days later) was conducted with the tape on.



The kinesthetic tape (RockTape) was applied bilaterally to the anterior, posterior and lateral chain of the lower limbs for each participant before the second session. Vertical jump poles were designed with colored tabs spaced at 1 inch intervals.

Force output was calculated in terms of jump height and the reduction in jump height achieved with each subsequent jump will indicate the level of endurance/fatigue the lower limb muscles suffer after running. The test was set up to simulate game time performance and action as closely as possible. The level of decline in jump height achieved could then be compared in the pre and post test to determine endurance levels and force output achieved.



### *Results*

The preliminary data analyzed has yielded very positive results in the benefits RockTape has for soccer players. Raw data collected indicate that most of the girls tested showed a significant increase in vertical jump height with RockTape on. Most girls demonstrated a 1 to 2 inch vertical jump increase compared to their readings without tape on. Another encouraging sign observed is that while there was a steady decline in jump height during the session without tape on, during session 2, the girls manage to maintain vertical jump height longer or decline slightly, then increase again.

Analysis of the initial raw data would suggest that the use of Rocktape in soccer players can enhance force output and endurance in the lower limbs of soccer player during game time scenarios. This would enhance performance and prevent injuries during the game. This data would point towards the benefits of using RockTape during soccer matches and also advocate for further testing to be conducted with larger samples and different levels of players.



### *The Next Step*

Soccer players, coaches and clubs who have identified with the benefits demonstrated in the above study and would like to experience the treatment benefits with our leading practitioner in soccer here at Perth Integrated Health, can contact:

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