

The Physical Demands of Ozttag Refereeing using GPS Technology!

Earlier this year, the Sport Science Team visited the 2013 Senior State Cup to track the movement patterns of players and referees using GPS technology. This issue of Sport Science Update provides an insight into the running demands of State Cup referees and asks the important question, how can we improve the performance of Ozttag referees?!

- Figure displays the percentage of total distance covered at various running intensities.
- The majority of distance is covered jogging or at medium-intensity running, similar to State Cup players (http://www.queenslandozttag.com.au/index.php?page_id=117)
- Referees using the buddy system covered a greater percentage of distance at high-speed running and less jogging, suggesting they can work harder to keep up with play!



Figure 1. The influence of the buddy refereeing system on running performance during match-play.



Referee Profile

Name: Chris Sachlikidis
Position: Bray Park Venue Coordinator

Chris' game statistics during Open Men's State Cup

Total Distance (m)	4388
Relative Distance (m/min)	110.3
Exercise-to-rest ratio	1: 6
Maximum Running Speed (km/h)	24.8
% High-Speed Running	3.8

Table 1. Physical demands of State Cup Ozttag referees across playing divisions.

	Open Men's	Open Women's	Open Mixed	Men's 30-45
Total Distance (m)	3898	3276	3716	2986
Relative Distance (m/min)	98.0	83.9	95.3	77.8
% High-Speed Running	3.1	0.7	3.0	4.0
Exercise-to-rest ratio	1: 6	1: 10	1: 6.7	1: 10
Max Running Speed (km/h)	27.4	20.6	21.6	22.8

- Figure displays the relative distance (average running speed) covered during the first and second halves for separate playing divisions.

- Referees cover **less relative distance in the second half likely due to fatigue.**
- Open men's and Open mixed divisions appear to be the most intense to referee.
- Referees show the greatest effects of fatigue in the Open mixed division where there is the greatest decline in average running intensity.

- These results highlight the **importance of fitness for referees** to maintain exercise intensity throughout an Ozttag match.

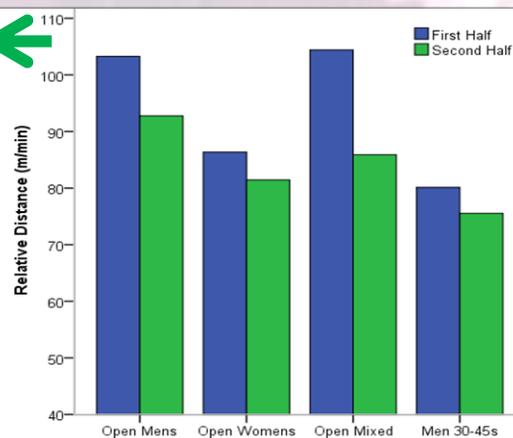


Figure 2. Average running intensity during the first and second halves of the match in different playing divisions.

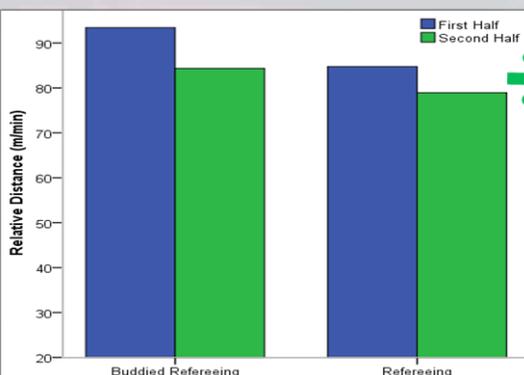


Figure 3. Influence of the buddy refereeing system on the average running intensity during the first and second halves of match-play

- Figure displays the relative distance during the first and second halves of match-play and the influence of the buddy refereeing system.

- On average referees can maintain **higher relative distance when using the buddy refereeing system.**

- Referees show a decline in relative distance regardless whether they use the buddy refereeing system or not.

- Improvements in fitness will allow referees to maintain running speed over a match **allowing them to keep up with play.**

In the next Issue:

Research findings from the 2013 National Titles!

Do you have a question for the sport science team?

Email: luke.hogarth@research.usc.edu.au

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