

Scientists believe they may have discovered the crucial ingredients for a winning soccer team

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Associate Professor Anthony Leicht from James Cook University's Sport and Exercise Science group was part of an international team of

scientists who examined variables within 240 matches in the Chinese Super League (China's top-ranked league).

"We looked at 10 physical indicators and 18 technical indicators across 16 teams and then related them to their rankings at the end of the season. Most other studies have examined either physical or technical indicators and none considered both categories together," he said.

Dr Leicht said among the physical performance indicators, total sprint distance in the course of the game was significantly greater for the best-ranked teams (top 4) compared to lower-ranked teams (ranked 5-8).

"This sprint finding highlighted the importance of sprinting for tactical team-work that generates open spaces, penetrative passes, and potential 1-on-1 situations," said Dr Leicht.

He said that on the technical side, teams in the top-ranked group exhibited a significantly greater amount of possession in the opponent's half, a greater number of entry passes in the final third of the field and the penalty area, and spent more time in possession of the ball.

"The results emphasised ball possession as a key determinant of success. Successful teams can direct matches by controlling ball possession on approach to the opponent's half and by promoting the creation of shots.

"Looking at these results, coaches should be encouraged to focus on strategies to maintain ball [possession](#) that generates more offensive actions."

Dr Leicht said that it was also notable that 50-50 challenges won (where players from opposing teams are at roughly equal distance from the ball and both attempt to play it) and fouls committed were greater for better-ranked teams.

"Better positioning on the pitch and more contact and assertiveness may lead to greater clearing of the [ball](#) to teammates and a positive scoring style of play," he said.

Dr Leicht said the limited number of physical-related differences between different team rankings in the study reinforces the idea that soccer is not exclusively dependent on physical capacities but rather a complex interaction of many performance indicators - physical, tactical, and technical.

More information: Gai Yang et al, Key team physical and technical performance indicators indicative of team quality in the soccer Chinese super league, *Research in Sports Medicine* (2018). [DOI: 10.1080/15438627.2018.1431539](#)

Provided by James Cook University

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