

MLB teams with greater circadian advantage are more likely to succeed

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The magnitude of circadian advantage influences the outcome of Major League Baseball (MLB) games in that teams with greater circadian advantage are more likely to win, according to a research abstract that will be presented on Tuesday at SLEEP 2008, the 22nd Annual Meeting of the Associated Professional Sleep Societies (APSS).

Using the convention that for every time zone crossed, synchronization requires one day, teams were assigned a daily number indicating the number of days away the team was from resynchronization. Positive values indicate eastward travel, negative values westward, and a value of zero indicate synchronization with the current time zone.

Approximately 79.1 percent of the games analyzed (19,084 of 24,133 games) were played between teams at equal circadian times. The remaining 5,046 games featured teams with different circadian times. In these games, the team with the circadian advantage won 2,621 games (51.9 percent). However, 3,681 of these 5,046 games were also played with a home field advantage. In isolating games in which the away team held the circadian advantage (1,365 games), the away team won 619 games (45.3 percent).

“The magnitude of circadian advantage influenced success. When teams held a one-hour circadian advantage, winning percentage was 0.517, and winning percentage with a two-hour advantage was 0.517. When teams held a three-hour circadian advantage, winning percentage increased to 0.603,” said W. Christopher Winter, MD, of Martha Jefferson Hospital

Sleep Medicine Center in Charlottesville, Virginia, lead author of the study.

“We began looking at the impact of travel and time zone changes on Major League Baseball teams in 2004. In that study, we evaluated the impact of travel on team performance, and showed that it did impact game outcome. We decided to expand the study to a 10-year retrospective period, and with MLB funding, recently completed this study which confirmed an impact of travel on team performance.”

It is recommended that adults get between seven and eight hours of nightly sleep.

Source: American Academy of Sleep Medicine

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