Revealed: the best and worst lanes for Olympic sprinters

Olympic sprinters take note - a new study has found that being closer to the starter pistol gives athletes a competitive advantage.

The study by the University of Alberta looked into the connection between loud sounds and reaction time.

And it suggests that the closer racers are on their starting position to the starter, the faster and stronger their reaction is to the pistol's shot.

Researcher Dave Collins analysed the results of the 100 and 110 metre athletics events from the 2004 Olympics.

He then proved his theory by measuring the reaction times of four trained athletes and 12 who were untrained. After performing sprint starts, they said their reactions were faster because they correlated with the loudness of the sound.

"We suggest that procedures presently used to start the Olympic sprint events give runners closer to the starter the advantage of hearing the 'go' signal louder. Consequently, they react sooner than their competitors," said Brown.

Authors say it can have practical applications beyond sport. They suggest loud sounds can be used to counter the 'freezing' that the victims of Parkinson's disease experience, when neural signals fail to pass through damaged areas of the brain.

Post this story to del.icio.us