# ABSTRACT


## LACTATE THRESHOLD IN COURT TEST: VALIDITY IN FUTSAL PLAYERS

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The objective of this study was to investigate the validity of the anaerobic threshold in the 20 m shuttle run test in the determination of the maximal lactate steady state (MLSS) in Futsal players. Nine male futsal players (16,8 ± 1.27 years) performed an incremental treadmill test for the determination of the velocity corresponding of 3.5 $mmol.l^{-1}$ of lactate (HECK et alii, 1985) ($V3.5_{Heck}$). Also for the determination of the V3.5 ($V3.5_{leger}$), the Futsal players performed the 20 m shuttle run test, with the initial running speed of 8.5 $km.h^{-1}$ and increment of 1 $km.h^{-1}$ each three minutes. After the determination of the V3.5 the athletes performed at least three tests to determine the MLSS. The MLSS was determined through intermittent running (20 m shuttle run) and defined as the highest velocity at which blood lactate did not increase by more than 1 $mmol.l^{-1}$ between the minutes 10 and 30 of the constant velocity runs. There was a significant correlation between the velocities of $V3.5_{leger}$ and MLSS ($r = 0.86$). Analysis of variance revealed significant difference ($p<0.05$) between the intensities of the MLSS and $V3.5_{Heck}$ and between $V3.5_{Heck}$ e $V3.5_{leger}$, but the analysis did not reveal difference between $V3.5_{leger}$ and the MLSS. The correlation between the heart frequency (F.C.) in the V3.5 Leger and MLSS was $r=0.70$. The analysis of variance revealed significant differences ($p<0.05$) between F.C. in $V3.5_{leger}$ and MLSS and between $V3.5_{Heck}$ and MLSS. The analysis did not revealed differences between $V3.5_{leger}$ and $V3.5_{Heck}$. We conclude that OBLA can be utilized in Futsal players to estimate the MLSS.

Key words: anaerobic threshold, lactate, futsal.