

## 1461 RELATIONSHIP BETWEEN REACTION TIME AND ANAEROBIC POWER IN DIFFERENT SPORTS

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The purpose of this study was to examine relationships between anaerobic power and whole-body reaction-movement time (RT) among athletes participating in different sports. Five groups of subjects (age 18-26 yr.) participated in the study, representing long distance runners (LD,  $n = 13$ ), sprinters (SP,  $n = 12$ ), fencers (FN,  $n = 13$ ), table tennis players (TT,  $n = 12$ ), and a control group (CO,  $n = 8$ ). All groups performed vertical jump (VJ), Wingate anaerobic power tests, and RT using a light (RT-L), a sound (RT-S), and a choice of light (RT-C). ANOVA tests revealed no significant differences among the groups in RT-L, RT-S or RT-C. For the Wingate tests, FN showed the highest relative peak (PP) and average (AP) anaerobic power compared to the other groups. However, their performance was only significantly different from LD (PP:  $14.6 \pm 1.8$  Vs  $12.3 \pm 1.4$   $W \cdot kg^{-1}$ ) and from CO (AP:  $10.2 \pm 1.6$  Vs  $7.7 \pm 1.1$   $W \cdot kg^{-1}$ ). Results of correlation coefficients between RT and each of PP and VJ were not significant in any of the groups. However, TT showed the highest correlation between PP and RT-L ( $r = -.54$ ) followed by LD ( $r = -.31$ ). In addition, RT-C had the highest correlation with PP in TT ( $r = -.45$ ) followed by LD ( $r = -.32$ ). It was concluded that RT was not significantly related to peak or average anaerobic power.