

## **Reaction time in different level of table tennis players**

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**Aim:** The aim of this study was to assess the acute effect of practice in table tennis on perceptual, decision making and motor systems (2). The central question was whether the perception-action demands characteristic of fast ball sports generate context-specific adaptations of the visuomotor system due to intensive practice (1).

**Method:** Groups of National (NL= 11), regional (RL= 6) and control (CC= 6; non-table tennis players) participants performed tasks of different complexity levels. It was hypothesized that expertise would affect performance more strongly in more complex tasks as compared to simpler ones. Higher skill participants were expected to respond more adaptively and faster than lower skill participants. All the subjects underwent to a reaction time test, a response time test consisting in a pointing task to targets placed at distinct distances (15 and 25 cm) on the right and left sides and at ball speed test (forehand and backhand strokes) just for NL and RL group.

**Results:** The reaction time of the CC group was higher compare to the RL ( $p<0.05$ ) and NL ( $p<0.05$ ) group. In the response time test, there was a significant interaction between the effects of distance and the tennis table expertise ( $p=0.047$ ) and the simple main effects of distance ( $p<0.0001$ ). The tennis table players were faster at 15-cm than at 25-cm. In the ball speed test the high level players were constantly faster compared to the low level players in both forehand stroke ( $p<0.0001$ ) and backhand stroke ( $p<0.0001$ ).

**Conclusions:** Overall, the forehand stroke was significantly faster than the backhand stroke. We can conclude that table tennis players have shorter response times than non-athletes, but the tasks of reaction time task and response time are incapable of differentiating performance of expert of intermediate table tennis players; but test of ball speed is capable differentiating table tennis players (3).

## References

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