

Kinematics Analysis of Muay Thai Knee Techniques

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Purpose: The Knee Strike (This technique is done by raising the knee diagonally to the thigh, rib and side of the body of an opponent.) and Knee Straight (This technique is done by raising the knee straightly to the body of an opponent.) techniques are commonly used in Muay Thai. It is effective for close quarters combat. This paper was to compare knee Strikes and knee straight velocity in Muay Thai. **Methods:** Five professional boxers performed five knee strikes and five knee straights technique to Muay Thai punching bag. Three-dimensional kinematics of knee Strikes and knee straight technique were recorded via a motion capturing system (Qualisys Systems, Sweden). **Results:** After data collection, velocities of knee technique were analyses. The t-test was used to compare the means between two techniques. In comparing the knee strike and knee straight techniques, there were significant differences in knee velocity ($p < 0.05$). The results indicated that the mean values of knee straight velocity (mean 15.15 ± 4.60 m/s) were higher than knee Strike velocity (mean 6.01 ± 1.47 m/s). **Conclusions:** This study found that velocity of knee straight is higher than velocity of knee strike. It is possible that knee straight technique generated more power than knee strike technique. This finding suggests that choosing the right techniques will help boxer to win a fight.

References

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