

Editors Note A SCITECHNOL JOURNAL

# Simple Techniques goes a Long Way in Enhancing Athlete's Performance

Peer KS\*

#### **Editorial**

Athletic performance is often perceived as a matter of speed and accuracy with which they run or jump as per the requirement to accomplish their goal. The importance of physical fitness is given high priority and emphasis is laid on the physical exercises that enhance the athlete's physical performance to tackle the undue pressure involved. However, successful athlete of an international standard needs to handle technical, tactical, physical and psychological pressures in order to emerge victorious in this competitive world. Specific training that imports the intricacies of each athletic variety assumes significant value as it provides exposure to tools and techniques to excel. Volume 8 and issue 3 of the Journal of the Athletic Enhancement depicted well researched articles on several nitty-gritty, minor, yet important techniques essential for the athletes.

Olstad et al. [1] have studied six well-trained male triathletes that participated in a 9 weeks observational study during the precompetition training period. The study discussed the role of effective training loads and stated that successful training must involve both overload and recovery. Failure to strike a balance between training and recovery, would lead to nonfunctional, overreaching or even overtraining syndrome. Monitoring athletes undergoing training thus assumes importance to avoid fatigue and undue stress that creates aversion. The sport or athletic game should be an enjoyment to the athlete rather than a physical and psychological burden. Number of monitoring tools is available to measure aspects like heart rate (HR), heart rate variability (HRV), neuromuscular function, biochemical/ hormonal/immunological responses, psychomotor speed, sleep quality and quantity with precision. This would enable the trainers to reset the standards to overcome stress and emerge as champions in their respective fields.

Baseball and soft ball games demand for the deployment of the entire body as a kinetic chain to produce the best performance. Timing is an important component in the kinetic chain and the correlation between balance and power production. Opponent teams therefore always aim to disturb the timing of the player by pitching the ball to varying speed to disrupt the timing and balance of the hitter. Giordano et al. [2] found that swing training, including weighted bats, swing parachutes, and donuts have been used to improve the performance of the players. It also served as an acute on-deck warm-up device prior to an at-bat.

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Using an electromagnetic motion, the researchers collected Kinematic data of 12 baseball and soft ball athletes. Swing records of the participants wearing the resistance tubing device were collected to capture the baseline swings. The study did not find any significant kinematic changes, which means that the resistance tubing swing training device could be used only as a preparatory tool for at-bats without the negative performance indicators.

Do carbohydrate mouth rinsing enhance performance and provide additional support for particular unidentified oral receptors? Can the neurobiological changes have an impact on cognition and athletic performance? Deutz et al. [3] have tried to answer all these questions in their study 'Measuring the Effect of Carbohydrate Mouth Rinsing on Late Positive Potential Responses using Electroencephalogram (EEG)' and tried to identify additional support for particular unidentified oral receptors in 24 respondents of both the genders. They took part in four experimental trials where solutions containing water, taste-matched artificial sweetener, artificially sweetened maltodextrin, and glucose were mouth rinsed for 30 seconds prior to electroencephalogram (EEG) and affective picture processing (APP) testing was recorded. This study reiterated the outcome of several previous studies and proved that carbohydrate mouth rinsing enhance athletic performance. The study also demonstrated that LPP activity exhibited by maltodextrin supports the potential existence of an unidentified receptor within the oral cavity.

Public interest is high on bare foot running from the past decade with the published research of Serrano et al. [4] that highlighted how running is an important part of the evolutionary process. Author Christopher McDougall's book, 'Born to Run' has further explored this and established the fact that barefoot running reduces injury risk and improve the overall running ability. Taking clues from the studies from the previous studies, Robataille et al. [5] prepared a comprehensive overview and guide of for clinicians working with athletes. Research exploring the anatomical and physiological adaptations also has endorsed for running with minimalist footwear and its impact on Gait, and foot strike patterns while wearing traditional footwear and minimalist footwear. The authors compared the injury during running with variety of footwear. The study discussed the benefits, cautions, and considerations for clinicians working with runners. The review offers valuable, yet practical suggestions, which can be used as clinician guide for runners when they shift from traditional footwear to barefoot/minimalist footwear.

The above mentioned articles have provided simple clues, techniques, and precautionary measures to enhance the athlete's performance.

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