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## Immediate effect of calf myofascial trigger point release on static and dynamic stability of artistic and rhythmic gymnasts

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The purpose of the study was to evaluate the immediate effect of myofascial trigger point release on static and dynamic balance in artistic and rhythmic gymnasts.

**Method:** 46 Artistic and Rhythmic gymnasts including both males and females participants completed 2 separate protocols to examine changes in Static and dynamic balance respectively.

**Procedure:** The Control group includes static stretching (SS), 6 repetitions of 6 s stretches of calf muscle followed by 5 min of jogging before and After the SS. Experimental group consist of 6 repetitions of 6 s stretches SS and 5 min of jogging before and after the SS, followed by I.A.S.T.M of calf muscle. Static balance was evaluated on Zebris medical gmbh, where as for Dynamic Balance, S.E.B.T. was performed.

**Results:** For Control group results suggest that stretching protocol have effect on reducing Side-to-side sway( $p=0.083$ ) but has no effect in reducing Path Length ( $p=0.523$ ), Average velocity ( $p=0.283$ ) and forward-backward sway ( $p=0.766$ ) measures for static stability. S.E.B.T Composite score showed significant results for right ( $p=0.00$ ) and non significant for left ( $p=0.90$ ) lower extremity. Results of experimental group revealed a highly significant difference in Path length ( $p=0.007$ ), Average Velocity ( $p=0.005$ ) and no significant difference for forward- backward sway ( $p=0.378$ ) and Side to side sway ( $p=0.148$ ). S.E.B.T Composite score showed highly significant results for right ( $p=0.000$ ) and left ( $p=0.000$ ) lower extremity. Conclusion: I.A.S.T.M. before training sessions along with active static stretch of calf before and after aerobic exercise is affective in improving static and dynamic balance immediately.

**Key Words:** Gymnasts, Myofascial trigger point release, Stretching, Static Balance, Dynamic Balance, M2T Blade.

## Biography

I am Dr. Ashima Chachra BPT from Guru Govind Singh Indraprastha University, New Delhi and MPT (sports) from Guru Nanak Dev University Amritsar. I am presently working as Assistant Professor in Jamia Hamdard University, New Delhi.

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