50 | **A COMPARATIVE STUDY OF STATIC STRETCHING VERSUS BALLISTIC STRETCHING ON THE FLEXIBILITY OF THE HAMSTRING MUSCLES OF ATHLETES**

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Background and objectives Hamstring tightness is present in almost all population of the world. Poor hamstring flexibility in often associated with injuries to the lower back and lower extremities in athletes. Improper training often results in diminished flexibility. Stretching has been promoted for years as an integral part of training programme to decrease the risk of injury. Static stretching and ballistic stretching both help in improving hamstring flexibility, which, in term increases range of motion of knee extension. So, the main objectives of this study are to evaluate a comparative effectiveness between static stretching and ballistic stretching in improvement of hamstring flexibility. This will help to find out the most effective type of stretching for improvement of hamstring flexibility in hamstring tight individuals.

Methodology 40 hamstring tight individuals of both the sexes between the age group of 20 and 40 years were randomly selected. Hamstring tightness was analysed by active knee extension test in the supine position with the help of standard double arm plastic goniometer.

Result The result of this study has shown that there in a significant difference in both static stretching and ballistic stretching. After 6 weeks of stretching, the study showed that ballistic stretching is better than static stretching in improving hamstring flexibility, with the help of a paired t test with a p value ≤ 0.05 significance.

Interpretation and conclusion The study concluded that ballistic stretching is better than static stretching in improving hamstring flexibility in hamstring tight individual though it can not be generalised to the whole population.