

## Role of Kinesiology on Sports Performance

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### **Abstract -**

Kinesiology a science that deals with the study of movement has been helping the coaches and athletic trainer in handling their athletes successfully and completely since the inception of this concept. Right from the days of Aristotle. The father of kinesiology the science of kinesiology has been variously used by coaches for the improvement and promotion of sports performance. His statement, an athlete can jump further if they have weight in their hand than they have not. Clearly indicates the implication of kinesiological principles in the improvement of sports performance even during the period to the birth of Christ. Initially the study of kinesiology was confined to functional anatomy later on the concept of kinesiology was broadening to include the study of mechanical principles with the introduction of sports in to the curriculum of Physical Education. But the endeavor for refining the concept of kinesiology was not stopped with this people were in search for giving a new shape to this subject.

The role of kinesiology in the improvement and promotion of sports performance is basically two folded. In one way it helps in perfecting a motor skill and other way in perfecting the performer. So that he can perform the motor skill efficiently. Perfection of motor skill is fulfilled by analyzing the human movement such as electro goniometry, cinematography, electromyography etc.

Knowledge of kinesiology helps to understand the characteristics of a sports technique that contribute to the successful execution of that technique. An understanding of the relationship between desired outcome of a technique and the various performance parameters are vital interest of coaches for the improvement of sports performance. For example the desired outcome in shot put is a good putting distance and performance parameters are speed of release angle of relax and height

of release. A cinematographically study will help to record all such data. Which are used as an aid to analysis of performance.

Kinesiology also helps of select a body type conducive for a sports. Considerable body mass is helpful factor for a football player where as it is a hindrance in gymnastics. Football player and gymnast require strength for effective performance in their own field. But strength should be predominantly great in legs for football player and arms for gymnast. Kinesiology also contributes in matching a sports person to the activity. A short and stocky boy will be a better performer in gymnastic than he would be to achieve fame in putting a shot.

One of the most important dimensions of kinesiology in primitive sports performance is prevention of susceptible sports injuries coaches and athletic trainer give a vital consideration to this aspect in the preparations of their sports person for competition. Exercise designed to prevent injury are now an important feature of almost every sports man's general training. An understanding of the structure of each joint factor which contribute to its stability and the factors responsible for the range of motion of each joint is required for the prevention and understanding of susceptible athletic injuries kinesiology provides the knowledge of arrangement of somatic material in the human body quality and character of environmental object and sports implements potential hazards in various sports activities etc. A comprehensive knowledge of this entire factor helps to control and prevent injuries.

Knowledge of mechanics as an aspect of applied kinesiology contributes to the selection of particular technique for an athlete in preference to the other. It enables to diagnose individual needs and difficulties and on that basis sports events can be selected. It provides with the knowledge of behavior various sports implement and equipment on the ground as well as in the air.

The knowledge of kinesiology also bestows valuable information in the planning and formulation of training performance capacities in the improvement of performance in any competitive sports. An exhaustive study of joint and muscle activity is helpful for dividing strength and mobility training programme. An athlete's speed in mediated predominantly by neuromuscular factors that include that the subject kinesiology is an indispensable science to understand various factors that govern human body when it involves in the sports activity. A substantial knowledge of this subject equips the coaches with the ability to analyze and understand the kind of sports his athlete is interested with respect to training as will as risk of injury. So kinesiology must be

regarded as a most significant field in the process of training and preparation of athletes for higher performance in a sports competition.

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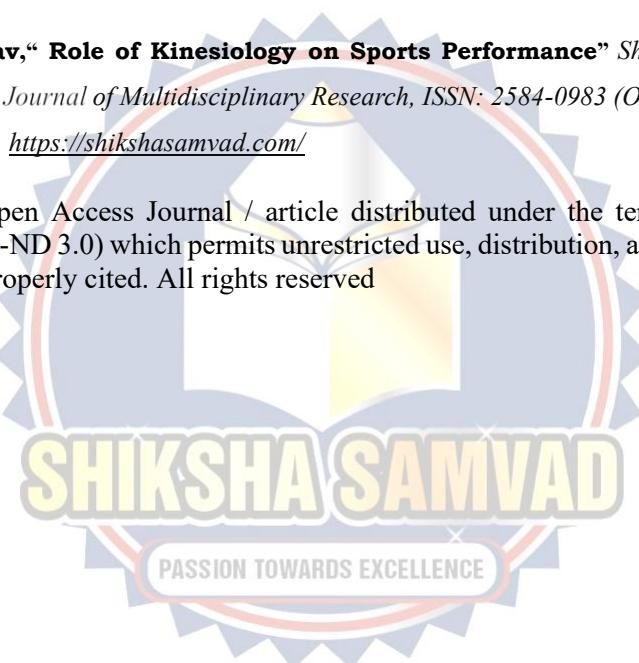
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