

The value of biomechanic knowledge as a teacher



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The Value of Biomechanic Knowledge as a Teacher ID Lecturer For the role of a teacher, the biomechanic knowledge helps an individual in shaping up the applications of mechanical principles towards diverse biological systems.

Biomechanics is the study of the function and structure of biological systems with the mechanical methods and methodologies. Sport biomechanics include the laws of mechanics as applied to grab an extensive comprehension of performance of the athletes as well as to reduce sport related injuries within different sports (McGraw 2002). The most common methods within biomechanic knowledge amongst sport include the electrical engineering, the clinical neurophysiology, the computer science, gait analysis and the elements of mechanical engineering. The worth of sports biomechanics has a vast scope - it takes care of the physical education of the teacher, the exercise science, the quantitative analysis on professional athletes and sports related activities and the sub-field of physics which are applied together to have an understanding of the performance of athletes through mathematical modeling, measurement and computer simulation. As a teacher, biomechanic knowledge helps in 3D Motion capture analysis, force plates, force transducers, strain gauges, surface EMG - all of which are regarded as the pivotal methods behind experimental sports biomechanic knowledge (Greeves 2002). The research areas for exercise science include golf swing, tennis, gymnastics, diving, trampoline, rowing, skiing and track and field. There have been a number of cases within the biomechanic knowledge that have come to the fore, and which have been able to create its mark over a period of time. Biomechanic knowledge for a teacher who wants to specialize in sports and its related forms is an interesting one as it teaches quite a good deal about this science in particular. Biomechanic

knowledge within sports finds out how sport related injuries are tackled and how these could be assisted for in the shortest possible time frame. It is also important to know that biomechanic knowledge has been of facilitation in the yesteryears and now a lot of research has been coming along which helps in the understanding of more and more injuries and problems that are happening within the global sports. The teacher within biomechanic knowledge understanding aims to do away with the issues that engulf the sports from a number of different angles and perspectives. This is one science that promises a great amount of advancements in terms of technology and up to date information is warranted for in essence (Wilkerson 1996). Athletic training and physical therapy are some of the most pertinent areas within biomechanic knowledge which assists a teacher in understanding his domains, all of which come specifically under the biomechanic knowledge tangent. All said and done, biomechanic knowledge is of utmost significance within the time and age of today as it brings about a lot of positives for the teachers who are geared to break new grounds within biomechanic sciences and the related fields that come along with the same. It is a fact that performance improvement is ensured when biomechanic knowledge is applied in entirety and when there are a good number of positives that one can derive from the entire understanding of biomechanic knowledge. References Greeves, J (2002). *Advances in Sport, Leisure and Ergonomics*. Routledge McGraw, D (2002). *A Whole New Ball Game*. ASEE Prism, Vol. 12, December Wilkerson, J (1996). *Enhancing Performance with Biomechanics*. JOPERD - The Journal of Physical Education, Recreation & Dance, Vol. 67