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Review Article **Published Date:-2023-09-28 10:45:45**

Cleat-surface Interface and Lower Extremity Injuries

Non-contact injuries with playing surfaces occurring from applied player impact and frictional forces are a major source of lower extremity injuries in competitive sports. Artificial playing surfaces are a common alternative to natural grass surfaces; however, these surfaces are associated with player injury as well. The purpose of this manuscript is to explore the existing literature on the relationship between cleat surface interface and lower extremity injuries in athletes and the importance of proper playing surface conditions alongside proper cleat selection to optimize injury prevention and athletic performance. As artificial turf has become more advanced, studies have shown the rates of lower extremity injuries of the knee, ankle, and foot have decreased to be more similar to the rate of injury on natural grass. However, foot and ankle injury rates remain significantly higher on artificial turf. Furthermore, certain studies continue to demonstrate an increased rate of knee injuries in football players, suggesting that significant performance differences still exist between artificial turf and natural grass. Future studies warrant focusing on ways to improve the cleat-surface interface of new-generation turf, emphasizing proper cleat selection, and playing surface conditions for injury prevention thus optimizing athletic performance.

Retrospective Study **Published Date:-2023-09-20 17:34:05**

Impact of Traumatic Sports Injury on an Athlete's Psychological Wellbeing, Adherence to Sport and Athletic Identity

Introduction: Sports injuries can affect athletes across all ages, sexes, and levels of competition. The mental aspect of acute sports injury is often overlooked by coaches, trainers, and medical professionals. This study investigated if and how an acute traumatic sports injury affects an athlete's psychological well-being, adherence to sport, and athletic identity.
Methods: The study consisted of surveys sent to former or current athletes over 18 with one or more athletic injuries. The Qualtrics surveys were anonymous, and participants consented to the study within the survey.
Results: There were 101 total participants (20.2% response rate) with an average age of 36. All reported one or more acute athletic injuries throughout their athletic careers. Specific survey sets were compared against each other using a variable correlation analysis (p - value < 0.05) and via Pearson's Correlation.
Conclusion: The results indicated that injury impacts the lives of athletes most significantly on the field and can harm their performance based on their perception of the severity of the injury. However, this decline in performance and decrease in confidence does not correlate to an athlete's desire to leave their sport or how they identify as being an athlete.

Research Article **Published Date:-2023-07-11 09:59:25**

Evaluation of Heavy Metals Concentration in Poultry Feed and Poultry Products

The study was conducted to determine the absorption of essential and non-essential trace minerals from poultry feed to poultry products. Poultry feed, liver, muscles, and egg samples were collected from six poultry farms in Rawalpindi and Islamabad. Mercury, Lead, Cadmium, Chromium, and Iron were analyzed in the samples using Inductively Coupled Plasma Optical Emission Spectrophotometer. Iron, Lead, and Chromium exceeded the permissible limits set by World Health Organization and National Research Council in Poultry feed. Lead was high in the liver, breast muscles, thigh muscles, egg albumen, and egg yolk. Chromium was found in feed, egg yolk, egg albumen, and two (02) of the liver and breast muscle samples. Mercury was not detected in any of the samples. The liver contains significantly higher concentrations of detected heavy metals as compared to thigh and breast muscles and egg yolk contained significantly high concentrations of Iron, Cadmium, and Lead as compared to egg albumen. Standards requirements for feed manufacturers and poultry farmers should be maintained to monitor and mitigate routes of entry of contaminants in the food chain.
