Risk of Injury Following Concussion

Our brains play a very vital role in our body's ability to operate. Our brains support the senses, thoughts, and overall functions of our body. When our brain suffers from injuries, our functionality is put at risk, and the recovery process can be slow, or in some cases, impossible. For those at a high risk of injuries such as concussions, that recovery can become more difficult with each brain injury.

For athletes, in particular, injury is very likely, especially with contact sports. So, how does a history of concussions impact future risk and any long-term impacts of those concussions? A study of 35 athletes representing six different Olympic sports was conducted. 54% (19 out of 35) reported a history of sports-related concussions. The study evaluated measurements such as reaction time, speed, acceleration, and deceleration. All of these factors impact how an athlete performs, and their ability to react properly in high-risk moments during a game or performance in which they may be susceptible to injury. In the study, researchers found that elite athletes who had previously suffered from a concussion demonstrated a lower ability to react and suboptimal performance in those moments through slower reaction times, speed, acceleration, and deceleration. This means that they were unable to generate proper responses in those crucial moments, leaving them susceptible to another injury.

Motor function is severely impacted by brain and musculoskeletal injuries. So, if someone is repeatedly suffering from these injuries, it means that their overall bodily function suffers severely in the long-term. When we expose ourselves to the risk of these injuries repeatedly, our body is often less capable of handling our response in the moment; this impacts our ability to fully recover. When we are able to function at our best, we play and perform at our best, and we react at our best! Taking care of the body is important, and ensuring proper healing processes post-injury means allowing ourselves the opportunity to meet our optimal health both on and off the playing field!

Wilkerson, G. B., Nabhan, D. C., & Crane, R. T. (2019). Association of Concussion History with Neuromechanical Responsiveness Asymmetry. Medicine & Science in Sports & Exercise, 1-20.



A recent study of Olympic athletes found that 54% had a history of concussion.





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