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***Athletes to Amnesia: Youth Concussions***

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 Sports are extremely popular among the youth in America: basketball, baseball, soccer, and football are among the most favored and have the most participants1. Contact sports, such as football, pose the risk of different injuries, one of the most serious concussions. Concussions are traumatic brain injuries caused by impact to the head. The brain is protected from outside dangers by the skull; the brain is also surrounded by spinal fluid that acts as a cushion between the organ and the skull2. When a person’s head, or even body, is hit with extreme force, the spinal fluid can be an inadequate protective measure in comparison to the force of the trauma – thus causing a concussion. There may be no physical signs of a concussion, but symptoms include headaches, concentration issues, dizziness, and more extreme medical issues in some situations2. Scientists and medical professionals are starting to record a large increase in the amount of concussions amongst the youth in America, and they are starting to note the possible long-term and developmental effects on those who suffer from concussion earlier on in their lives.

 According to medical data collected by Blue Cross Blue Shield, there has been a 71% increase in contact-sport related concussion among American youth, ages 10-19, since 20103. They also noted that the majority of youth concussion patients are diagnosed in the fall, during football, soccer, and rugby season3. The data also showed that athletes ages 10-19 are five times more likely than any other age group to suffer from concussions3. Not only are athletes in this young age range more likely to be diagnosed with concussions, but it also more likely for them to suffer from multiple concussions because of continued participation in physical activity, possibly without diagnosis of the first concussion. Since this brain injury can be invisible to the naked eye and symptoms may be minor or not prevalent, young athletes are faced with a risk of suffering traumatic brain damage.

 Medical professionals, not just in the United States, are noticing that there is a chance of long-term effects due to concussions. Dr. Maryse Lassonde, a Canadian neuropsychologist studied the effects of recurring head trauma on athletes of different ages4. In her most current research, Dr. Lassonde compared the neurological health of people who had suffered concussions about 30 years ago to individuals who have never had a concussion. Her results showed that those who experienced concussions at some point in their lifetime, even as far back as 30 years ago, experienced symptoms similar to those of Parkinson’s Disease (i.e. motor problems, attention problems, memory loss)4. Dr. Lassonde also observed brain thinning in the athletes who have experienced concussions over their lifetimes, which is usually seen in Alzheimer’s patients and is associated with memory loss. Lastly, she noted that some of the athletes suffered from chronic traumatic encephalopathy (CTE) – a condition caused by “repeated blows to the head”5. CTE is a form of chronic brain damage that has been found in the brains of many former athletes, such as retired football players, and can cause dementia and personality disorders5.

 Medical research is showing a trend in the detrimental long-term health effects of athletes who have suffered multiple concussions from participating in [contact] sports over their lifetime or as kids/teenagers. This calls into question what can be done to prevent this type of brain trauma from occurring so frequently. The rate at which concussion diagnosis among young athletes is increasing also presents an opportunity for health care professionals to possibly develop cures for this type of brain damage, or find ways to reverse the effects concussions have on the brain. Youth sports are becoming more and more popular throughout the country, meaning that this is an issue that should strongly be looked into. Research in preventative or curative medicine for youth concussions would help to provide the most safety for children while they play the sports they love. In addition, taking action to reduce the amount of youth concussions could allow kids and teenagers to continue to play these sports without having to fear what health detriments they could face in the future.

1Demaria, C. What are the most popular youth sports?

2WebMd. Concussion – Topic Overview

3Burton, T. Youth concussions on the rise since 2010, peaking in fall

4Krans, B. Effects of concussions in youth sports can last for decades

5Krans, B. Former NFL stars have a higher rate of depression, dementia

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