

Head and Neck Injuries in Soccer Players

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During the sportmedical care of the Austrian soccer youth teams and one elite team of the highest skill level we concern about the number of head injuries. We made a literature review to find if heading or concussion history can be blamed to cause neuropathological abnormalities.

The international football association consist of more than 200 national societies and more than 200 millions registred players. The overall injury risk is 10~35 / 1000 hours of play. Each soccer player is about 100 hours / year on the field. In Austria more than 290.000 people play soccer during the weekend. An unique aspect of soccer is the use of the head for controlling, passing, and shooting a soccerball. Every player uses the head 10 / game, defenders more than offensive players. The ball has a weight of 396~453 g a circumferrec of 68~71 cm, the speed is about 26~53 m / sec and the impact force 116 kp. The force of a hit of a boxer is 5 x stronger. Head injuries are 3,6% of soccer injuries and occure in 85% during the game while foul play. In one year period some authors found just 2 head fracture of the mandibular or maxillar bone. Neck injuries occure in 2% of injuries and are most combined with preaexisting abnormalities of the cervical spine.

Some authors report cumulative effects of heading causing certain neurophysiologic changes in current and retired players. Most of these studies dont have datas of praeexisting cognitive deficits, scholastic apitude, and alcohol or drug abuse. Later papers indicates that concussion is more frequent in soccer. Head injuries like repitive concussions are more of an influence for published findings of physiologic and psychological deficiens than routine heading of the soccer ball.