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Effects of Headgear on Concussions in Soccer Players

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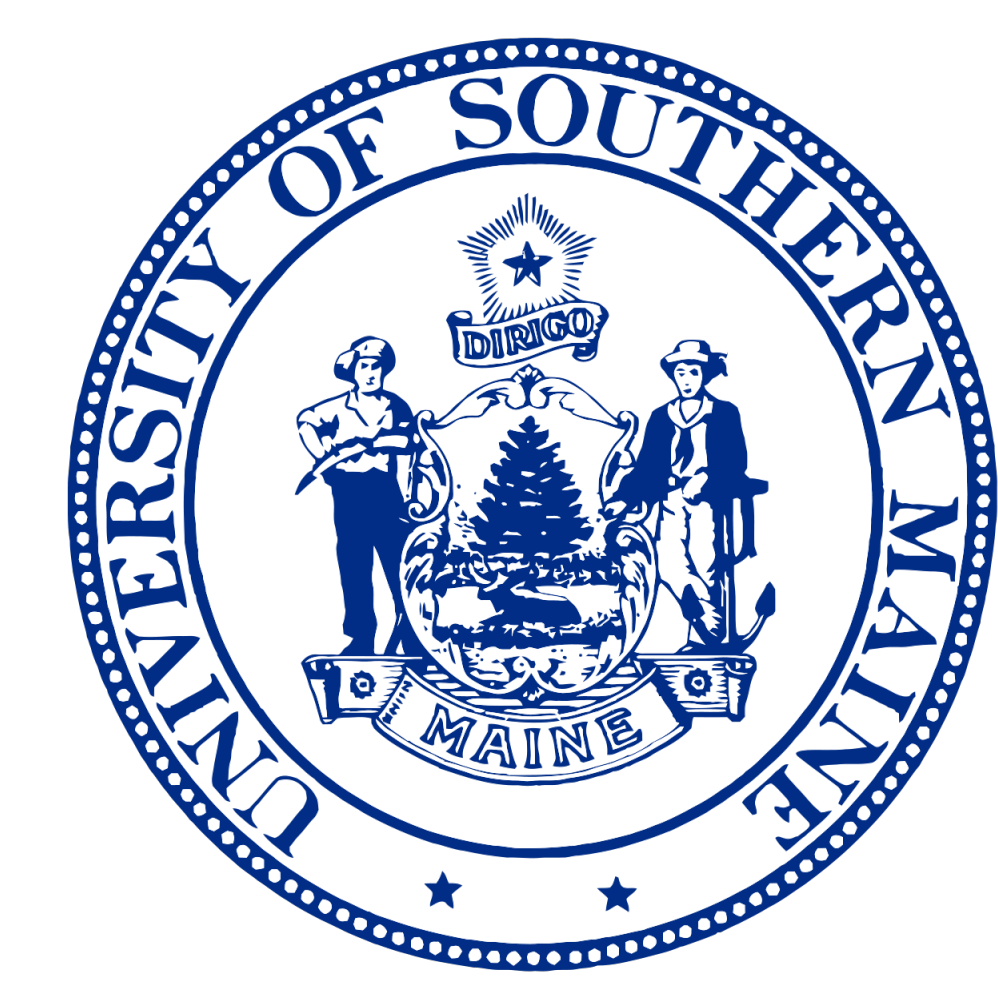
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Abstract

Concussions have become a hot topic among athletic health care, but there is still a great deal to learn. One specific population has been studied and research produced showing the effects of wearing protective headgear. For some reason, adolescent soccer players are more apt to suffer a concussion. Taking steps to reduce recovery time and make concussions less common is something that should be addressed. The studies done showing the effects of headgear in adolescent soccer players is a topic that needs to be more widely known.

Introduction

A concussion is a type of traumatic brain injury; that results when the brain hits the inside of the skull causing damage. This study was done on adolescent soccer players and the effects of wearing headgear on concussions. While headgear cannot prevent a concussion, research has shown that those who wear headgear suffer from less symptoms and recover faster.

Objective

In adolescent soccer players, how does wearing headgear compared to not affect a concussion and its symptoms.

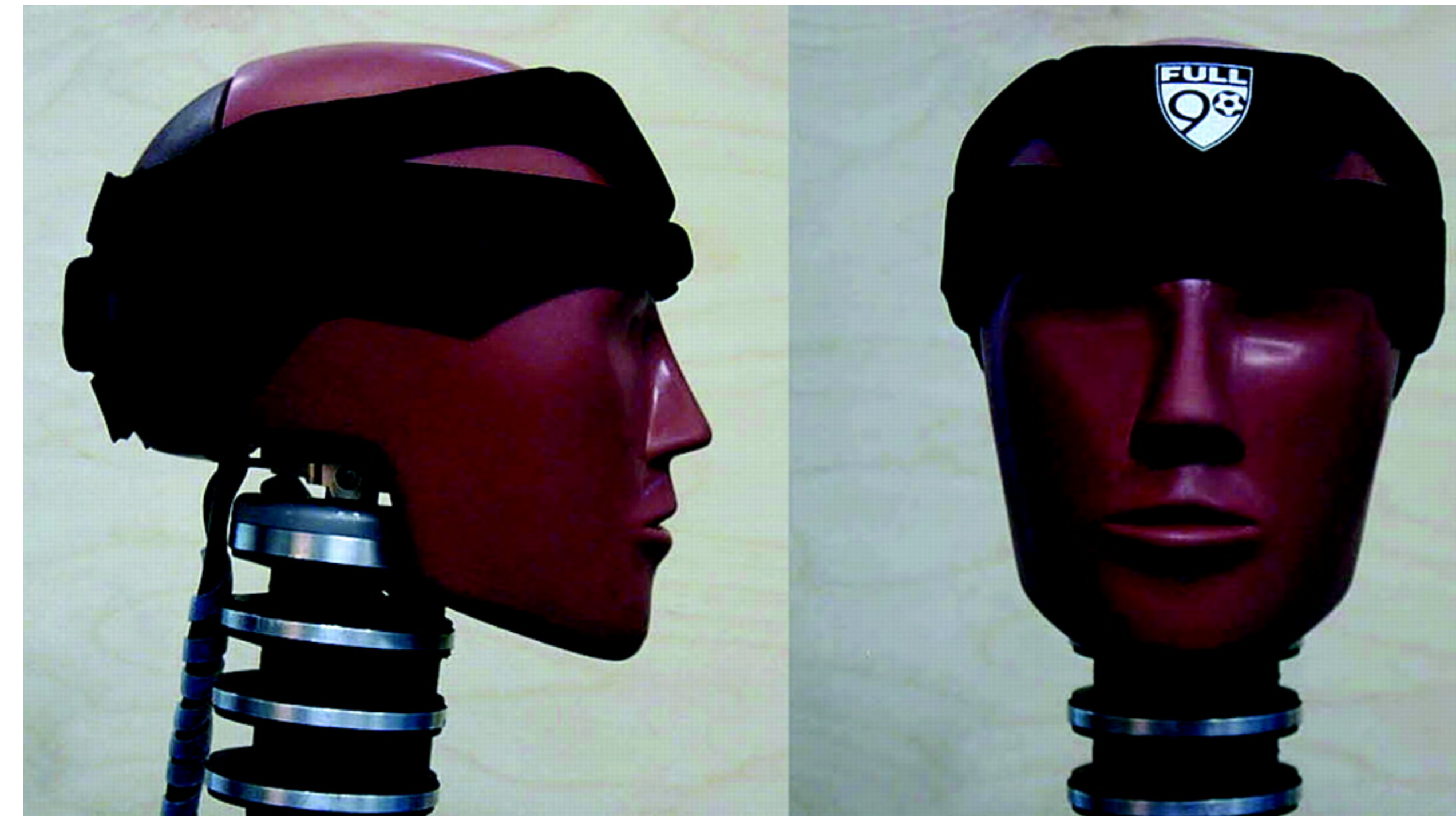


Figure 1. Example of soccer headgear



Figure 2. Two young soccer players colliding When going for a header.

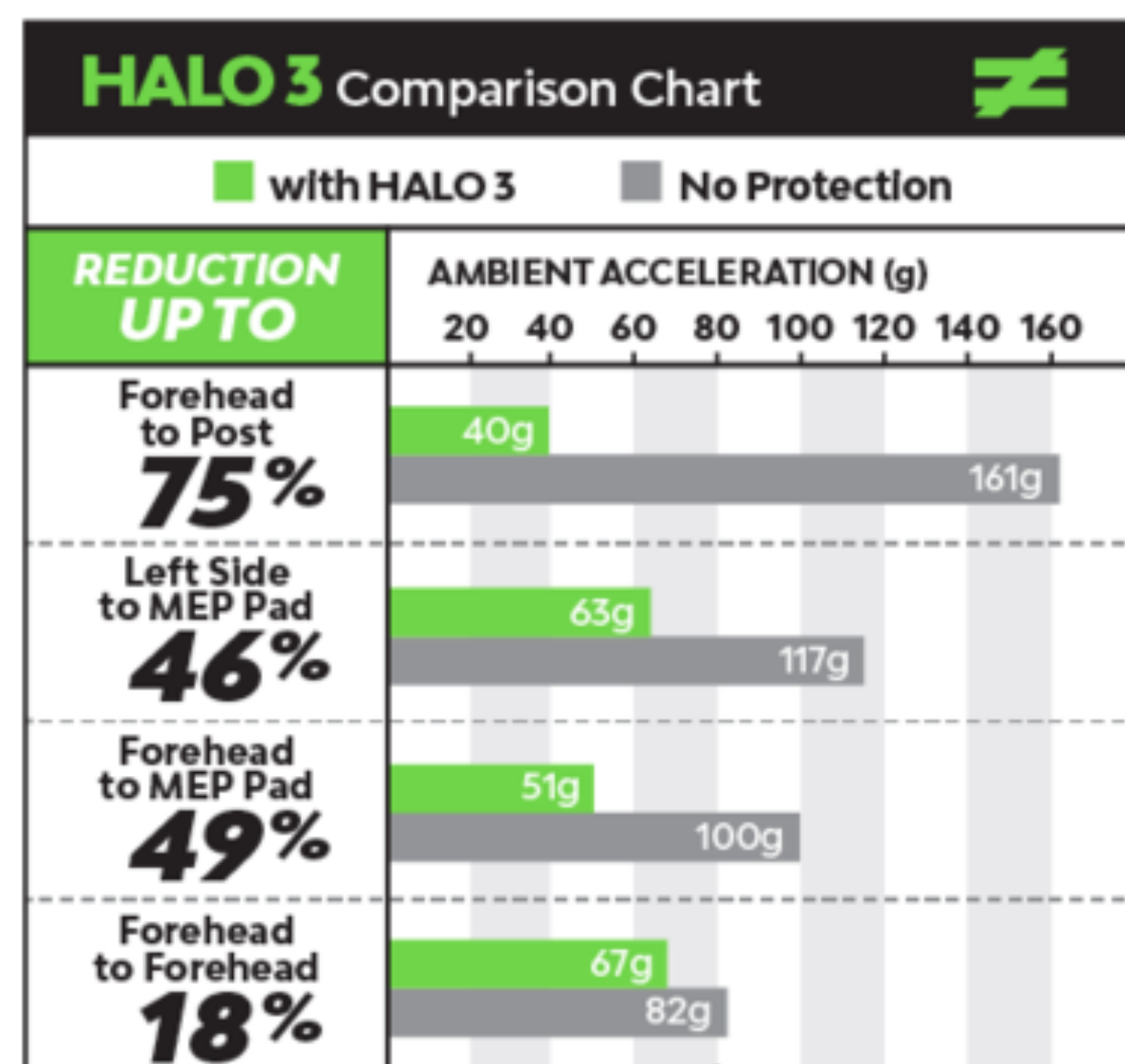


Figure 3. A graph showing the relationship between wearing the Halo3 headgear and acceleration force.

Methods

Websites such as Google Scholar and Medscape were used in order to research and find articles on the subject. These articles were read and compared and contrasted to collect research on findings of concussion headgear.

Results

While wearing headgear cannot completely prevent a concussion, it is shown that the headgear does lower the risk. It is shown that two heads can collide at the speed of 2.5 m/s, but with the headgear, peak linear acceleration were reduced by 1/3. At a collision of 4 m/s, headgear reduced the chances of a concussion from 56% to a mere 7%. Not only did the headgear help prevent concussions, it also lowered symptoms of those who had a concussion and shortened return to play time.

Discussion

As expected, the studies showed that the headgear made a significant difference for the adolescents who wore the headgear. The headgear helps lessen the impact of a blow, as well as quicken recovery time from a concussion. Head injuries are a major problem in youth sports today, especially in soccer. As soccer players have always worn shin guards to protect their tibia and fibula, it is time for players to wear concussion headgear in order to protect their head and brain. A head injury can affect the student for years to come and some of these cases could be eliminated or bettered if the athlete had been wearing protective headgear.

Acknowledgements

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